Psychobiology Section Annual Meeting
Old Dungeon Ghyll, Langdale, 11–13 September 2002

A direct comparison of alcohol consumption and extended waking on driving performance and subjective awareness

C. ALFORD, Psychology Dept., University of West England at Bristol.

Objectives: This investigation set out to directly compare the associated levels of impairment on driving performance and subjective state resulting from alcohol consumption in comparison to extended waking and night driving.

Design: A quasi-naturalistic design was employed where participants completed both alcohol and extended waking conditions in a crossover design.

Methods: 12 participants (19–33; mean 27 years) with full driving licences, and who were not blind to treatments, undertook a 20 minute simulated driving task (DASS: Stowood Scientific Instruments), subjective sleepiness, and mood assessments to evaluate the effects of mid-day alcohol (0.1 per cent BAC) against mid-day and 10.00 p.m. baselines, as well as extended waking tested at 12.00 p.m., 2.00 a.m. and 4.00 a.m., after rising at 8.00 a.m.

Results: Comparisons between the mid-day and 10.00 p.m. baselines were not significant, whilst steering errors, response times and omission errors for a peripheral number identification task were significantly impaired after alcohol and after extended waking when compared with baselines. Subjective sleepiness also increased after alcohol and extended waking; though subjects were significantly more sleepy and subjectively less alert, clear headed; well co-ordinated and quick witted at 2.00 a.m. and 4.00 a.m. than after alcohol. Mid-day alcohol showed impaired performance in contrast to 12.00 p.m. testing although sleepiness and mood were better after alcohol for 3/5 subjective measures. Alcohol produced equivalent decrements to 2.00 a.m. testing through 4.00 a.m. performance was worse.

Conclusions: Results highlight the greater impairing effect of night-time and 20 hours waking on driving. Subjectively, drivers were at least aware of the effects of sleep loss as of alcohol.

The comparative effects of caffeine and sleep restriction alone and in combination, on subjective state, task performance, and P300 brain event related potentials

C. ALFORD, Psychology Dept., University of the West of England, Bristol.

Objectives: This study compared the effects of sleep restriction and caffeine, as well as their combined effects on performance, mood and event related (P300) potentials.

Design: A repeated measures (2 x 2), placebo controlled design was used to investigate effects of sleep restriction (four hours) compared to a normal night (seven to nine hours), and facilitating effects of caffeine (200mg) compared to placebo.

Methods: 14 participants (19 to 35, mean 26 years) received placebo following overnight caffeine withdrawal, both after normal and restricted sleep. After completion of experimental tasks caffeine was administered, and tasks were completed again. Assessments used subjective visual analogue scales (VAS), performance on immediate and delayed word recall, critical fizer fusion (CFF), Stroop colour-word and number cancellation tasks. The effects of sleep and caffeine were looked at individually and in combination, on subjective state, task performance, and P300 brain event related potentials (ERP's) P3a, P3b were recorded using an 'oddball' paradigm.

Results: Significant impairments (p < 0.05) were found in CFF, VAS, number cancellation, Stroop, P3a latency, and P3b amplitude and latency for restricted vs. normal sleep. Significant improvements (p < 0.05) were seen in CFF, VAS, number cancellation, and Stroop, but only P3b amplitude for ERP’s, with caffeine vs. placebo. Significant interactions (p < 0.05), due to caffeine’s superior effects in low arousal, were found in Stroop, and VAS (clear headed/muzzy).

Conclusions: A wide range of impairments including subjective state, performance and a direct measure of frontal (P3a) and parietal (P3b) attentional processing were seen as a result of sleep restriction. Caffeine had a greater effect in reversing decrements after restricted sleep.

Running out of time: Ageing and the biological clock

S.M. BIELLO, Biological Timing Laboratory, Neuroscience & Behaviour Group, Dept. of Psychology, University of Glasgow.

Purpose: To provide a review of how circadian clock function changes with age.

Background: Daily patterns in physiological, behavioural and cognitive processes are gated by an internal timekeeping mechanism. This pacemaker allows an organism to synchronise itself with respect to the environment and also to anticipate cyclical changes. While light is the primary signal acting to entrain, behavioural signals can act to modulate this input.

Methods: We have investigated ageing and clock function on a number of levels from the activity patterns of rodents, to the input pathways of environmental synchronising stimuli, to the actual cells that make up the clock. Using behavioural, electrophysiological and immunocytochemical experiments to monitor the clock both in vivo and in vitro, we have found several age-related changes in circadian clock function.

Conclusions: Our data indicates several changes occur with the circadian system of aged animals. These include a shortening of the internal frequency, a lack of consolidation of the activity rest cycle, an advanced angle of entrainment and changes in the response of the clock to entraining stimuli. These alterations in the timing system over time result in disruption of synchronisation. Difficulty sleeping is one of the main reasons why people over the age of 65 visit their GP. The internal body clock contributes to the control of sleep duration, timing, and value. It is hoped that our work will lead to improved recommendations to improve circadian clock function in the aged.

Kynurenine metabolic pathway activity in male chronic alcoholics

A. BONNER & C.R. MARTIN, Kent Institute of Medicine and Health Sciences, University of Kent at Canterbury & Dept. of Health Sciences, University of York.

Objectives: To investigate the hypothesis that dietary manipulation would influence kynurenine pathway metabolite production in a cohort of chemically dependent male alcoholics.
The British Psychological Society
2004 Proceedings

(\(N = 18\)).

**Design:** The study used a counterbalanced repeated measures design in which high carbohydrate (CAR), high protein (PRO) and nutritionally balanced (CONTROL) breakfasts were supplied to participants on three separate days. Blood and urine samples were collected before breakfast and again two-and-a-half hours following each breakfast (08.30 and 11.30 hours). The dependent variables were serum levels of kynurenine pathway metabolites.

**Methods:** The blood samples were collected via 9ml Vacutainers separated by centrifugation. Shimadzu High Performance Liquid Chromatography (HPLC) equipment was used to determine the concentrations of kynurenine metabolites.

**Results:** Statistical analysis was conducted using one-way ANOVA. No significant differences were found for any of the kynurenine pathway activity as a result of dietary manipulation.

**Conclusions:** The use of dietary manipulation to ameliorate serotonergic-mediated aspects of psychological distress such as depression would not appear to be contra indicated since there is no evidence of an increase in neurotoxicity via a relative increase in kynurenine metabolite production.

The measurement of appetite and cognitive performance across the menstrual cycle

S. HENDERSON, R. TURNER, B. TIPLADY & P. WRIGHT, Dept. of Psychology, University of Edinburgh.

**Objectives:** To assess changes in appetite, mood, and cognitive function across the menstrual cycle on a hand-held computer.

**Design:** A within-subjects design collecting data over a one-month period of in each individual.

**Methods:** 26 females aged 18.2–53.9 years, mean age 23.9 years took part, of whom 11 were taking the contraceptive pill. Body temperature and blood glucose (BG) Analogue Scale (VAS) ratings of mood were assessed daily. Cognitive assessments (Maze, Flanker Task, Word Recognition Memory, Visual Search), body weight, and a sub-set of the Somatic Marker Questionnaire (SMQ) adapted for repeated use were assessed every three days. Onset of menstruation was recorded. All assessments were set up on the Apple Newton Message Pad MP2000.

**Results:** Compliance was good for daily entries (>85 per cent) and for cognitive assessments and SMQ (>90 per cent) but poor for body weight (about 50 per cent). Body temperature data was not sufficiently consistent, and phases we chosen to be from the rate of menstrual onset. VAS scores were higher in the late luteal and menstrual phases for breast tenderness, body swelling and body weight. For both pill and non-pill users the results were higher in the late luteal and menstrual phases. For body temperature for both pill and non-pill phases for body temperature were higher in the late luteal and menstrual phases. For body weight, the late luteal and menstrual phases were associated with an increase in body weight.

**Conclusions:** No significant impact on both interpretation of data and acceptability of method of collecting data on a hand-held computer is a practicable method of collecting data on a hand-held computer.

Therapy type and neurocognitive function in Type 1 Diabetes Mellitus


**Objectives:** Continuous subcutaneous insulin infusion pump therapy compared to basal bolus insulin administration was investigated to determine if therapy type has any effect on neurocognitive performance at three different blood glucose levels in insulin-dependent patients with Type 1 diabetes.

**Design:** The study used a 2 (group type) x 3 (blood glucose level) mixed group design with repeated measures on the second factor (blood glucose level). The between-subjects independent variable (IV) was group type, pump or injection. The within-subjects IV was projected blood glucose level (2–3.5mM/L – hypoglycaemic, 4–7mM/L – euglycaemic, 10–15mM/L – hyperglycaemic). The dependent variables are scores obtained on the Bexley-Maudsley Automated Psychological Screening (BMAPS) neurocognitive test instrument.

**Methods:** This pilot study (\(N = 30\)) is currently being conducted in a district hospital diabetes centre. Each participant is tested at one pre-determined BG level and at each post-dose BG level at each session. There is a minimum of a two-week break between each testing session. A Freestyle blood glucose sensor is used to obtain a real-time readout of blood glucose levels for the duration of the test.

**Results:** The research is currently in progress and preliminary data will be presented at the psychobiology section research meeting.

**Conclusions:** The clinical implications for Type 1 patients with diabetes of the study and the direction of future research in this area will be discussed at the psychobiology section annual meeting.

Testing the somatic marker hypothesis

R.E. O’CARROLL, B.P. PAPPS & N.T. NORTH, School of Psychology, University of St. Andrews.

**Objectives:** Damasio has proposed an influential model of human decision making – the Somatic Marker Hypothesis (SMH), where he argues that somatic feedback to the brain influences decision making. It is currently accepted that choosing between options that differ in relative risk, a somatic marker (e.g. a ‘gut feeling’) feeds back to the brain and influences subjective appraisal. In the present study we tested the hypothesis that the noradrenergic system may play a role in this affective feedback process.

**Design:** Between-subjects design.

**Methods:** 30 healthy young adults were randomly allocated to receive placebo, 4mg or 8mg reboxetine (a new selective noradrenergic reuptake inhibitor which acts to enhance central noradrenergic activity). We hypothesised that enhancement of central noradrenergic activity may amplify the effect of affective feedback, and lead to altered decision making. All subjects completed the Iowa Gambling Task (IGT), a computerised card playing game where the player is instructed to try and win as much money as possible over 100 selections from one of four decks.

**Results:** There were no significant differences between the three groups in gambling task performance.

**Conclusion:** This result suggests that central noradrenergic activity may not be critically involved in the affective feedback mechanism that is central to the somatic marker hypothesis.

Tolerance to recreational MDMA (3,4-methylenedioxy-methamphetamine) or Ecstasy

A.C. PARROTT, School of Psychology, University of East London.

**Purpose:** To critically evaluate the empirical evidence on tolerance to MDMA (3,4-methylenedioxy-methamphetamine) or Ecstasy in humans.
Background & Methods: Tolerance to MDMA cannot be researched in the laboratory because of its hallucinogenic properties. However, recreational users can provide indirect information of relevance to the topic. In particular, the empirical data on dosage escalation, bingeing, and reduced responses will be reviewed.

Results: On their very first occasion most users take a half or single tablet. Novice users often take 2 tablets or more on a single occasion, while the more experienced taking 3 to 6 tablets/occasion. Bingeing is also reported, with some of the heaviest users occasionally taking 10 or more tablets on a single occasion. Reduced levels of subjective efficacy are typically described, despite using these higher doses. Acute tolerance, and by definition, tolerance, will also be briefly mentioned, although the empirical evidence on these topics is sparse.

Conclusions: Findings suggest either an indirect evidence for chronic pharmacodynamic tolerance to recreational Ecstasy/MDMA. Three mechanisms for tolerance are generally described: metabolic, neurochemical, and behavioural. However it will be proposed that MDMA displays a form of chronic tolerance largely unique to the ring substituted amphetamine derivatives, namely that due to distal 5-HT axonal loss, or serotonin neurotoxicity.

Development of a theory of discrimination learning

J. FARNE, Psychology Dept., University of Cardiff.

Purpose: To review the development of our theoretical understanding of discrimination learning by reference to selected experimental findings.

Background: Most theories assume that if animals must discriminate between different patterns of stimulation, then associations will develop between each element of a pattern and the event it signals. The findings from studies that have examined the influence of similarity on discrimination learning challenge this assumption. Their results can, instead, be explained by assuming discrimination learning depends upon the associative strengths of configurations in which the entire pattern of stimulation on a trial enters into a single association with the trial outcome. It is possible to develop a formal theory based on this assumption in the form of a relatively simple connectionist network.

Key Points: Such a configural theory has, in turn, been challenged by the ability of animals to solve structural discriminations in which reward and nonreward are signalled by patterns comprising the same features. A red circle to the left of a yellow circle might signal food, whereas the opposite relation might signal the absence of food. Nearly all connectionist networks are sensitive to relative and absolute differences in features, but not to information about how the features relate to each other and thus predict the event it signals will not be solved.

Conclusions: Even though there has been an improvement in our understanding of discrimination learning, the ability of animals to solve structural discriminations poses problems for even the more recent theories.

Event-related brain potentials reveal three loci of repetition priming for written names

E. PICKERING & S.R. SCHWEINBERGER, Dept. of Psychology, University of Glasgow.

Objectives: We assessed immediate repetition priming effects for famous names on reaction times (RTs) and event-related brain potentials (ERPs).

Design: The task required speeded familiarity judgements to target names (famous and unfamiliar).

Methods: In Experiment 1, famous target names could be preceded either by the same name or by another name, written in a different font, or by different famous name (unprimed). In Experiment 2, cross-domain priming of famous names was investigated, comparing names preceded by a common face to names preceded by the face of a different celebrity.

Results: We observed three topographically different ERP modulations of priming, in separate time ranges. Priming effects were seen between 180–220ms, an ‘N200’ modulation was seen over posterior sites for font-specific name repetitions only. A left temporal negativity (‘N250’), was seen between 200 and 400ms, and a right-hemisphere negativity (‘N400’) was seen. In Experiment 2, the N400 priming effect was preserved, but no N200 or N250 effects were observed.

Conclusions: This suggests that the N200, N250, and N400 effects revealed in this study reflect facilitation at the levels of font-specific processing, semantic, and semantic integration, respectively. Our findings show how ERP analysis can be an efficient tool for isolating separable processes involved in repetition priming.

Emotion recognition and social perception in patients one year after undergoing a surgical intervention for chronic refractory depression

N. RIDOUL, T. MATTHEWS & R.E. O’CARROLL, School of Psychology, University of St. Andrews & Dept. of Psychiatry, University of Dundee.

Objectives: The primary aim of the study was to establish if anterior cingulotomy patients would exhibit the same pattern of impairment of emotion recognition and social perception as patients with frontal lobe damage. The second aim of the study was to establish if patients who had undergone anterior cingulotomy post-surgery from their depressive episode, differed in their performance from patients who remained depressed.

Design: Four individuals (one male, three females) were assessed on the Awareness of Social Inference Test (TASIT) 12 months after undergoing an anterior cingulotomy. Two patients (both females) were recovered from their depressive episode and were still depressed. The patients’ performance was compared to that of 12 brain-injured patients and 12 healthy controls. TASIT involves the participants making judgments about, and interpretations of, a series of videotaped interpersonal interactions.

Results: The brain-injured and surgery patients identified fewer emotional displays correctly than the controls. The surgery patients made fewer correct interpretations of the sarcastic interactions than did the controls, although they made more correct responses than did the braininjured patients. This finding held even when participants were given additional information to help guide the interpretations. The surgery patients (male, female, and depressed) also made fewer correct interpretations of sincere interactions compared to the other participants (brain injured and controls).

Conclusions: Anterior cingulotomy does appear to be associated with impairment of emotion recognition and social perception. It would also appear that there is a different pattern of impairment for surgery patients who have recovered and those that are still depressed.

Psychobiological problems and polydrug use reported by novice, moderate and heavy users of Ecstasy

J. RODGERS*, A.G. PARROTT**, T. BUCHANAN+, A.B. SCHOLEY†*,**, M. HAMERTON*, T. HEFFERNAN†, T. LING†*,** Dept. of Clinical Psychology, University of Newcastle, Newcastle-upon-Tyne, ++Recreational Drugs Research Group, School of Psychology, University of East London, +Dept. of Psychology, University of Westminster, ***Human Cognitive Neuroscience Unit, Dept. of Psychology, University of Northumbria & ++Psychology Section, University of Teeside.

Rationale: The recreational use of Ecstasy is associated with many psychobiological problems, but there is a paucity of data on how these problems relate to patterns of use and how polydrug consumption patterns change with greater experience of Ecstasy.

Objectives: To assess the incidence of Ecstasy-related problems reported by users and to compare the polydrug usage patterns reported by non-Ecstasy users and Ecstasy users.

Methods: In an internet study of 763 volunteers, 481 were Ecstasy naive and 282 were users. The Ecstasy users comprised 109 novice users, 136 moderate users and 36 heavy users. Heart responses were recorded covering problems experienced when drug-free, which were attributed to Ecstasy use. Each participant also reported use of other psychoactive drugs.

Results: A variety of problems were associated with Ecstasy use. Ecstasy users reported significantly greater psychoactive drug usage than non-Ecstasy users and novice, moderate, and heavy Ecstasy users differed from each other in the use of other drugs.

Conclusions: The incidence of problems attributed to Ecstasy use, is directly related to the number of occasions it has been used. These results are discussed in the context of crosstolerance and drug predisposition/ preference.

Investigating the potential psychobiological mediators involved in the retrograde enhancement of memory by alcohol phenomenon

A. SCHOLEY, K. FOWLES, & K. FRASER, Human Cognitive Neuroscience Unit, Northumbria University, Newcastle-upon-Tyne.

Objectives: There are several reports that administration of low levels of alcohol results in retrograde enhancement of memory. It has been suggested that this phenomenon may involve the liberation of glucose, reinforcing ‘euphorogenic’ mood changes, and/or arousal systems. Here two experiments are described which aimed at addressing these possibilities.

Design: Both studies employed a parallel groups, double-blind, placebo-controlled design.

Methods: In the first experiment participants consumed a drink containing either alcohol (0.36g/kg), glucose (25g), or a placebo immediately following a series of a kinaesthetic (maze reorientation) memory paradigm. As well as memory performance, mood effects were assessed using the Profile of Mood States and blood glucose levels were monitored. In Experiment 2 the impact of alcohol was compared to placebo using an emotional memory paradigm involving recognition and recall of neutral and emotional words. Heart rates were monitored throughout.

Results: In Experiment 1 both alcohol and glucose significantly enhanced kinaesthetic memory. Only glucose improved performance when it was taken in a significantly elevated blood glucose. There was no effect of treatment on mood. In Experiment 2 alcohol improved recall and this was more marked for emotional than neutral words There were differential effects of treatment and material emotionality on word recognition indices. Heart rates were relatively decreased following placebo and increased following alcohol.

Conclusions: The data weakly support the notion that the alcohol enhancement of memory phenomenon may be mediated via autonomic mechanisms. However alcohol consumption does not result in the release of glucose nor does it significantly change any aspect of mood.

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2004 Proceedings

3
A cross-cultural comparison of health, eating behaviour and body image among black South African and white British university students

J.A. SEED1, S. OLIVER2, R. STEINBERG2 & J.A. SEED1, School of Psychology, University of Zululand, Kwa-Zulu Natal, Northumbria, Newcastle-upon-Tyne & Dept. of Human Movement Science, University of Zululand, Kwa-Zulu Natal, South Africa

Objectives: Recent research has shown an increase in the incidence of eating disorders such as Anorexia and Bulimia Nervosa among black female students living in urban areas of South Africa. The aim of the present study was to provide a profile of mental and physical health, eating behaviour and body image among black female students living in a highly rural province of the country.

Design & Methods: 40 black female students from the University of Zululand, South Africa and, for purposes of comparison, 40 white female students from Northumbria, UK, participated in the study. Testing and assessments were carried out locally and with the same groups of students where appropriate. Dependent measures fell into three categories: morphological (body mass index, waist-hip ratio, percentage body fat), physiological (resting heart rate, blood pressure, haemoglobin, glucose, cholesterol) and psychological (anxiety, depression, attitudes and behaviours indicative of eating disorder). A body image assessment was also carried out.

Results: No between group differences were identified for measures of dietary health, although the African participants were significantly larger, with 42.5% of the sample being overweight or obese. However, African participants were significantly depressed and symptomatic on the eating disorder measures. Both groups showed high levels of body dissatisfaction.

Conclusions: These results suggest that black female students living in rural areas of South Africa may presently constitute a high-risk group for eating disorders. As such, it is proposed that these findings be taken as a prima facie case for psychoeducational intervention in such areas.

The effects of caffeine and caffeine withdrawal on cognitive performance

D.M. SUTHERLAND & G. CHRISTOPHER, School of Psychology, Cardiff University.

Purpose: To provide an overview of research investigating the effects of caffeine and caffeine withdrawal on cognitive performance.

Background: There has been extensive research on the behavioural effects of caffeine. A protracted process of replication and extension has led to a general consensus about the more robust effects of caffeine: increases in alertness, improved sustained attention, increased speed of encoding of new information, faster simple and choice reaction time. Smith (2002) has suggested that effects of caffeine observed in low alertness situations reflect changes in noradrenergic function. Other effects of caffeine are observed even when alertness is not reduced and these may be due to changes in the cholinergic system. An alternative view of the effects of caffeine has been suggested by James (1994). He argues that effects of caffeine can be linked to receptor binding activity.

Methods: 40 healthy volunteers took part in a double blind, double dummy procedure was utilised in medical herbalism for memory function. The outputs from the mamillary bodies – anterior thalamic nuclei is a protracted process of replication and extension for purposes of comparison, 40 white female students from the University of Zululand, South Africa and, for purposes of comparison, 40 white female students from Northumbria, UK, participated in the study. Testing and assessments were carried out locally and with the same groups of students where appropriate. Dependent measures fell into three categories: morphological (body mass index, waist-hip ratio, percentage body fat), physiological (resting heart rate, blood pressure, haemoglobin, glucose, cholesterol) and psychological (anxiety, depression, attitudes and behaviours indicative of eating disorder). A body image assessment was also carried out.

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Scottish Branch Annual Conference


INVITED SPEAKERS

Making a difference: Reducing recidivism in prisoners.

R. HALL, Scottish Prison Service.

The development of a constructive approach to addressing individual needs associated with offending behaviour is flourishing despite the compelling evidence for the role of safety and political concern about ‘dangerous’ individuals.

Using examples taken from the Scottish Prison Service, it will be shown how psychology can be applied directly to reduce risks for prisoners to develop their potential to lead crime free lives on release and to assess the risks which will have to be managed on their return to the community.

Psychologists have been instrumental in developing and implementing the assessments and interventions they provide staff training and work on multidisciplinary teams and specialist units as well as engaging in individual work.

Why do we worry?

G.C.L. DAVEY, University of Sussex.

This presentation will discuss how research into the causes of pathological and chronic worrying has advanced over the last 10 years. Prior to 1990 there was only a handful of research papers on worry – even though it is an activity that almost everyone indulges in at some time in their lives, and which has now become the cardinal diagnostic feature of Generalised Anxiety Disorder (GAD). I will describe how our research on this topic at the University of Sussex has developed since that time, describe some of the cognitive mechanisms that we have identified as playing a role in worrying and the processes that result in worry, and the mechanisms that we have most recently identified as underlying chronic and pathological worrying.

PAPERS

The measurement of quality of life in children and adolescents with chronic health conditions: An introduction to the European DISABKIDS project


Quality of Life (QOL) in children with chronic health conditions is typically assessed using adapted or modified adult measures. However, support for the research suggests that adult measures may fail to tap into the specific aspects of QOL that are of particular importance to the child (Eiser & Morse, 2001). Funded by the European Commission, the DISABKIDS project is a cross-national effort centring around the development of a set of cross-culturally standardised instruments to assess QOL from the child's perspective. This paper will focus upon three areas: First, the DISABKIDS project will be introduced and the results of recently completed pilot work, in which both children and parents completed the measures, will be discussed. Second, the DISABKIDS measures that have been constructed through focus group work, item reduction techniques and cognitive interview will be presented. Third, two principal issues shall be discussed with specific reference to the condition asthma: (1) the importance of the development of age appropriate measures of quality of life; and (2) the appropriateness of proxy measurements of quality of life.

Children living with an affectively ill parent: What are their coping strategies, self perceptions, experiences and needs?

N. COGAN, G. MAYS & S. RIDDELL, University of Glasgow.

Children of affectively ill parents have been reported to be ‘at risk’ of diagnosable psychopathology, as well as for impairment in family functioning. This study builds on earlier work documenting the mechanisms of risk and identification of protective factors which increase resilience in children. Children (aged 12–17 years) of affectively ill parents were compared with children of ‘well’ parents. The Frydenberg (1993) Coping Scale and the Harter (1983) Self Perception Scale were used to compare the coping strategies and self perceptions of parent-child dyads for the two groups, in order to examine possible differences in the coping strategies and self perceptions used by families and to investigate the possible familial associations between such concepts. The experiences and coping strategies of young children were also explored using semi-structured interview schedules. Analysis revealed that affectively ill parent-child dyads adopted more non-productive coping strategies and were found to have lower self perception scores than ‘well’ parent-child dyads. Correlational analysis revealed a number of positive associations between coping and self perception, whereby non-productive coping strategies were significantly associated with lower self perception scores. Affectively ill parent-child dyads were found to be less likely to seek external support to help them cope with their family situation, and to experience a greater consequence of fear of losing their custodial rights. The impacts of supporting children and their families in respect of these findings are developed. Recommendations and possible future directions for researchers, service providers and policy makers, based on the stated experiences of children, are postulated of which the common goal is to develop the human potential of children ‘at risk’.

WORKSHOP

Mentoring: A model for intervention against Disadvantage

B. HOWIESON, University of East London.

As a system of personal and/or professional support, mentoring is used in a number of occupational and educational contexts in the UK. Mentoring is becoming increasingly relevant to the operational demands of before basic training and to define service commitment in terms of health-related quality of life and personality measures. Multiple correlations with service career commitment based on 1500 subjects were close to 0.8.

Can leadership be taught – and how?

H. KAHN & W.B. HOWIESON, Heriot-Watt University.

This paper will examine a number of the key aspects surrounding the debate about whether leadership can be taught. It will present the views of current researchers on, first, what leadership is considered to be; second, how leadership can be developed; third, what leaders need to learn; and fourth, the different methods by which leadership can be taught.

The paper will also highlight the fact that most of the research into leadership has been conducted from a Western perspective and is based on Western values. These theories and learning practices may not be transferable to other cultures. As societies become more multicultural, it is essential for leaders and the learning that is aimed at developing leaders to take this into account. In addition, leadership development needs to be examined from a masculine point of view. As more women attain leadership roles within organisations, there has been an increase in research comparing the differences between men and women in leadership roles. The current view is that women are as effective as men in leadership positions, and have the same potential to develop as leaders. Their success in certain situations may be due to their possessing more Emotional Intelligence than their male counterparts.

The paper will conclude by suggesting that research indicates that leadership can be developed, provided the potential is there in the individual, in a variety of ways and using a number of techniques.
Driving diaries for elderly drivers: Developing self-awareness and enhancing self-protective driving behaviours

E. KARAGIANIDOU & H. FOOT, University of Strathclyde.

Objective: The number of elderly drivers and the link between driving cessation and depressive symptoms reflects the importance of monitoring the effects of driving cessation. In addition, the rise in their accident involvement and fatality rates is related to the fact that ageing is associated with functional limitations, which may impair driving performance. The need for limiting their driving (avoid driving at night, or in complex traffic environments) and/or quitting driving completely may not be recognised by elderly persons, for example, those not aware or willing to admit their cognitive, perceptual, or motor deterioration. Practical reasons (a car being a ‘lifeline’, especially in the absence of public transport) may make them reluctant to quit. On the other hand, other psychological factors (reduced confidence) may lead to quitting prematurely. In the present study, the factors that contribute to becoming psychologically ready to engage into different levels of self-protective behaviours were investigated, by keeping a Driving Diary.

Method: 221 drivers over 60 years of age completed the Driving Experiences Questionnaire (DEQ), in which they kept the driving diary. Shifts in self-reported driving behaviours were assessed by a post-diary questionnaire.

Results: The drivers reported less avoidance of driving at rush hours, at night, at complicated junctions, or when feeling sleepy or tired, and when parking on busy roads/near schools. Furthermore, more stress was reported when: manoeuvring, finding unfamiliar traffic signs, driving in a hurry, while having conversations, or when drivers in front of them brake suddenly. Furthermore, drivers saw themselves as more skilled than their peers, and, generally, drivers rate themselves as more aware of the changes in their driving skills.

Conclusions: The role of self-monitoring one’s driving behaviours as a way of increasing self-awareness is discussed.

Psychological influences on the referral of cancer patients to oncologists and on their uptake of post-surgical treatment

S. LINDSAY & K. SIMMONS, Institute of Psychological and Learning Disabilities.

Background: Certain psychosocial characteristics of patients are said, often with little explanation, to help them survive cancer. However, none of the therapies aimed at survival. Therefore, this study sought to determine if those characteristics could influence referral and uptake of treatment.

Methods: 330 consecutive patients with breast cancer or colorectal, urological or cancers of the upper gastrointestinal tract (pancreas, oesophagus, stomach), were divided at random into two groups to complete published questionnaires about their psychological and social characteristics, their attitudes to their clinical consultations and to cancer. Demographic and clinical data were available for all. Shortly after surgery and before the patients’ ‘histological data were known’ they completed the questionnaires. Then, independent of the questionnaires but according to histology, the patients were divided again (of whom there were eight) for referral to oncologists.

Findings: According to multivariable logistic regression analyses, patients were most likely (between 0.010 and 0.000) to be recommended for referral if they did not have gastrointestinal cancer, were married, well-educated, depressed, dissatisfied, had advanced cancer and believed that their health was others’ responsibility. They were most likely to perseverer with post-surgical chemotherapy or radiotherapy if they had breast cancer or had been referred to the local hospital.

Conclusions: Consistent with research on clinical consultation, a higher education and belief that others have responsibility for one’s health may prompt patients to seek or be referred for treatment. Breast cancer patients could be more encouraged than others because of media publicity or less demanding treatment. Better communication may help to reduce such inequalities. Depression is a cause for concern in cancer patients and that, with their diagnosis, we have commended patients for further treatment.

False teeth and false hopes: An intervention to improve tolerance of dental prosthesis

L. McGuire & K. MILLAR, Dept. of Psychological Medicine, University of Glasgow.

Patients who undergo full dental clearance are commonly psychologically distressed, and more commonly known as false teeth. Although the prostheses may be technically perfect, many patients are dissatisfied with their dentures and suffer significant symptoms including anxiety and social avoidance. The paper reports an information-based intervention to improve acceptance and reduce distress, and to establish factors that are predictive of denture dissatisfaction. Forty-four patients having dental clearances were assessed before the procedure, and then at two and six weeks after fitting of dentures, on measures of personality (Eysenck’s Personality Questionnaire), social anxiety and affective state (Hospital Anxiety and Depression Scale), Satisfaction with Life Scale, locus of control and satisfaction with denture function. After the clearance, the two groups were allocated either to an information group which was shown a video explaining the process of adaptation to dentures and their social implications, or to a control group which received the dental service’s ‘treatment as usual’ (minimal information conveyed verbally).

The two groups were equivalent on psychological prior to dental clearance. After fitting of dentures, the video group showed significantly greater levels of depression and significantly lower levels of anxiety and depression, general distress and social anxiety at both follow-up assessments. The only group to report a significant increase in denture dissatisfaction with dentures was partly predicted, at both follow-ups, by their pre-denture Satisfaction with Life scores. The no-video group’s denture satisfaction reported at the two-week follow-up, could be partly predicted by their pre-denture expectations towards dentures and the type of dentures they had fitted and at six-weeks by their pre-denture social anxiety ratings.

It was concluded that the video intervention reduced patient expectations towards dentures resulting in more denture satisfaction and less psychological distress following the fitting of dentures. Pre-denture personality and Locus of Control were not found to predict denture dissatisfaction. Results are discussed in reference to future research and in the context of past results and clinical implications.

Predictors of quality of life for individuals with chronic pain

J.M. O’NEIL, Dept. of Child & Family Psychiatry, Bridgeton, Glasgow.

Chronic pain in the UK is a sizeable problem for people in the health service. Chronic pain can impact negatively on quality of life and has high personal and interpersonal costs in terms of pain related disability.

Psychological management of chronic pain involves increasing individuals’ levels of functional activity, thereby reducing pain related disability. The first aim of this study, therefore, was to establish overall quality of life for people with chronic pain was predicted by level of function. The second aim of the study was to identify specific predictors of functional activity. Possible predictors were hypothesised to include mood, employment status, and quality of social support, but not severity or intensity of reported pain.

Fifty consecutive adult subjects with chronic pain attending their first appointment at a pain clinic were assessed by self report questionnaire on measures of quality of life, functional status, mood, social support. The second aim of the study of the forty-five subjects with chronic diabetes attending a follow-up appointment at a diabetes clinic were also assessed by self report questionnaire on all measures except pain. Results showed firstly that quality of life was significantly lower for individuals with chronic pain compared with individuals with chronic diabetes. Forty-one per cent of the variance in overall quality of life for both groups was explained by perception of physical health. Therefore, the difference between the groups could not be explained by the chronic nature of

Conventional analysis showed a significant (p<0.001) reduction over 12-months in mean GHQ distress and increase in proportion of cases (between 0.010 and 0.000) to be recommended for referral to an oncologist and on their uptake of post-operative treatment. Sixty-eight per cent of those who were cases in the immediate post-operative period were subsequently recorded as cases at least once during 12-month follow up, compared to only 27 per cent of those who were not cases and for the post-operative assessment (p<0.001). More notably, the depression scores of those who were cases at the post-operative assessment, 25 per cent continued as cases throughout the 12-month follow up, in contrast to those who were initially non-cases (p<0.001). Thus, a simple mean-based or caseness-based analysis fails to highlight the actual proportion of patients who remained distressed throughout. Women who suffer high levels of distress at the time of cancer diagnosis and survive may have much more likely to social avoidance than those who respond initially with lower levels of distress.

GHQ distress was consistently predicted by IPQ Identity (i.e. symptom number), neuroticism, general health status and pain (accounting for between forty and fifty per cent of variance at each follow-up). Increased sex was associated with lower distress. Distress did not vary as a function of mastectomy versus local excision, nor adequate radiotherapy versus inadequate radiotherapy. Misleading conclusions may be drawn from analyses that fail to account for individual variation. Amongst women, the fact that many women maintain high levels of distress, and are often characterised by high levels of neuroticism and symptom awareness, may have implications for the nature of psychological interventions that might be offered to them.

The benefits of the model are significant: Mentees (improved personal and professional development); Mentors (increased understanding of EO and diversity issues and management and developmental opportunities); Mentor Unit (opportunity to contribute to the local community especially with social inclusion issues; establishing links with particular minority communities; and improved profile in the local area).

Individual variation in long-term distress after surgery for breast cancer

K. MILLAR, A. PURUSHOTHAM, D. GEORGE, G. MURRAY & E. MCLATCHIE, University of Glasgow.

The study was funded by Chief Scientist Office grant OPT-22/D309.

Studies of psychological morbidity after surgery for breast cancer show that both the average distress and proportion of ‘cases’ reduce over time, leading to the conclusion that most women achieve emotional adjustment. The conclusions are not valid, however, because summary statistics (e.g. means and percentage ‘caseness’) neglect and mask the factor of individual variation in distress. The overall aim of this study was to establish if overall quality of life for people with chronic pain was predicted by level of function. The second aim of the study was to identify specific predictors of functional activity. Possible predictors were hypothesised to include mood, employment status, and quality of social support, but not severity or intensity of reported pain.

Fifty consecutive adult subjects with chronic pain attending their first appointment at a pain clinic were assessed by self report questionnaire on measures of quality of life, functional status, mood, social support. The second aim of the study of the forty-five subjects with chronic diabetes attending a follow-up appointment at a diabetes clinic were also assessed by self report questionnaire on all measures except pain. Results showed firstly that quality of life was significantly lower for individuals with chronic pain compared with individuals with chronic diabetes. Forty-one per cent of the variance in overall quality of life for both groups was explained by perception of physical health. Therefore, the difference between the groups could not be explained by the chronic nature of
both conditions. Individuals with chronic pain reported significantly lower levels of functioning, and greater levels of anxiety and depression, than individuals with chronic diabetes. There was no difference between the groups in terms of quality of social support.

A step-wise multiple regression analysis of possible predictors of functional status for individuals with chronic pain, showed that depression was the largest predictor of physical functioning (19 per cent of the variance), followed by employment status (17 per cent of the variance). Quality of social support and severity and intensity of pain, were not predictors of functional status.

Results: Discussed in terms of current treatment regimes for chronic pain, as well as the challenges to finding suitable employment and the barriers lined to social security benefit status.

Quality of life in children and adolescents: Introduction to the European KIDSCREEN project and results of the UK pilot study

K. PHILLIPS, M. POWER, C. ATHERTON and the KIDSCREEN Group, University of Edinburgh.

Quality of life measures have rarely been used in surveys of child and adolescent health. Surveys that have looked at quality of life have typically used a narrow focus. The perceptions of the children and adolescents themselves have not been taken into account. For the health of children and adolescents to be adequately measured there is a need for a child-centred, cross-cultural measure of child and adolescent health to be developed. Funded by the European Commission, the KIDSCREEN project is a cross-national effort centring round the development of a cross-culturally standardised instrument for the assessment of child and adolescent health-related quality of life. This paper will focus on the concept of the pilot KIDSCREEN measure in seven European countries through focus group work, item reduction techniques, standardised translation and cognitive interviewing. In the UK a total of 427 children and adolescents took part in the pilot of this measure. The results of this pilot test will be discussed and the final KIDSCREEN measure will be presented.

An examination of the academic self-concept of secondary school students with specific and general reading difficulties

P. RALSTON & J. BOYLE, University of Strathclyde.

This study investigated the relationship between the academic self-concept of secondary school students and reading difficulties. The participants were 612 students from one secondary school, aged between 13 and 16 years (mean 14 years 10 months). Participants were assigned to one of three groups: Group 1 (N=13), with specific reading difficulties (SpRD), where reading attainment measured using the British Ability Scales (Elliott et al., 1997) was not indicated with verbal ability measured using the British Picture Vocabulary Scale - II (Dunn et al., 1997); Group 2 (N=34), with general reading difficulties (GRD), where reading attainment was consistent with verbal ability; and Group 3 (N=39), a control group with average reading attainments. The 'Myself-As-A-Learner-Scale' (M.A.L.S., Burden, 1998) was utilised as a measure of academic self-concept. The results revealed that between-group differences on the M.A.L.S. (p < 0.05) were evident. T-test comparisons indicated that while both Groups 1 and 2 had significantly lower self-concept scores on the M.A.L.S. than the control group 3 (p < 0.05), there was no significant difference between Groups 1 and 2. Further post hoc analyses confirmed that the results in four of the five key areas identified by Burden (1998) as contributing to an individual’s academic self-concept. For the remaining element, ‘careful contributing to an individual’s academic self-concept of secondary school students are discussed.

Development and piloting of a CD-ROM package in adolescent medicine: The recognition and treatment of depression (funded by the Innovation Fund for Children’s Services Scotland)

C. RICHARDS, N. CANNON & E. SCOTT, Royal Edinburgh Hospital.

This project has been funded to develop, pilot and evaluate a CD-ROM package and website about depression. Depression in adolescence often lasts up to a year, disrupting development and sometimes auguring a lifelong vulnerability. Early recognition and treatment are recognised as important factors in diminishing complications and improving outcome.

The aim of the resource is to assist young people to develop an understanding of depression and enable them to make effective use of self-help and mental health services by introducing information in an accessible medium.

A generic multimedia package has been developed in collaboration with Picardy Media Group and the clinical research team. This design is fully compatible with being converted to a web-based format and may be used to inform the development of further health education packages.

A pilot study has been undertaken with groups of 53-54 pupils across 5 schools in the city of Edinburgh with a specially designed research tool and quantitative feedback (N=89). Additional evaluation of the package was obtained from those services users at the Young People’s Unit (N=10) and from professionals working with adolescents (N=10). The results of this pilot have further informed the design, content and use of the CD-ROM and associated website.

The influence of childhood mental ability and smoking factors on smoking behaviour and lung function in adulthood: Linking the Scottish Mental Survey 1932 and the Midspan studies


Objective: To investigate the influence of childhood IQ and social factors on smoking behaviour and FEV1 at mid-life in a cohort of people born in 1921.

Methods: Midspan was a longitudinal follow-up of those from two of the Midspan prospective studies conducted on adults in the 1970s – the Collaborative study, located in 57 workplaces in the West of Scotland, and the Renfrew/Paisley general population study. The sample consisted of 938 Midspan participants who were successfully matched with their results on the Scottish Mental Survey 1932 in which almost all 1921-born people attending Scottish schools on 1 June 1932 (N=87.498) took a cognitive ability test.

Results: Childhood IQ was not associated with starting smoking but was associated with giving up smoking (p < 0.01). Smokers were more likely to be single and in lower social class and deprivation than non-smokers remained there a 19 per cent advantage in stopping smoking associated with a one standard deviation higher IQ. Structural equation models were formulated to test the hypothesis that the influence of childhood IQ on smoking and FEV1 may be mediated by other factors. In men, childhood IQ had an indirect effect on the number of cigarettes smoked per day via occupational social class, and in women it was directly associated with FEV1 in adulthood. In women, the influence of childhood IQ on cigarette consumption and FEV1 was mediated via the age at starting smoking.

Conclusion: Higher mental ability in childhood is associated with stopping smoking in adulthood. Childhood mental ability is associated with social and lifestyle factors that influence smoking and health outcomes in adulthood.

Realising the potential of autistic children through learning-based assessments

L. VIGENTINI & M. CHALMERS, University of Edinburgh.

Research carried out recently at the laboratory for Cognitive neuroscience has applied new sequencing learning techniques to the study of cognitive functioning in autism. Based on non-verbal computer games programmed (by Vigentini, 2001), which assess competences in sequential memory and executive control, the techniques yield a detailed insight into the strengths and weaknesses of both high and low functioning autistic children (Chalmers & Vigentini, 2002). In addition, however, surprising insights have been gained for both sub-types regarding improvements in performance under carefully selected training conditions.

In the case of high functioning children, these consist of conditions that reduce reliance on stereotyped solutions, and that were found to increase spontaneous organisation in memory. In the case of low functioning children, the CAST games have successfully reduced the pervasive effects of perseverative (repetitive) touching by revealing a more accurate picture of the learning abilities of severely impaired children than could be gained from more routine assessment.

With this group, also, transfer to new tasks revealed hidden potential. For at least some of the ‘low functioning’ individuals, development and learning, coupled in some cases with ‘normal’ strategies for solution, was found when the executive memory demands of the task were reduced. Taken together, the results suggest that there may be more flexibility within autistic cognition than is assumed from classic assessments.

POSTERS

Postnatal depression and puerperal psychosis: A SIGN national clinical guideline for Scotland

B. ALDER, R. CANTWELL & J. TOPALIAN, Napier University, Edinburgh.

Postnatal depression has increasingly acknowledged as an important source of concern and an important health problem for women and their families. In June 2002 the Scottish Intercollegiate Guidelines Network (SIGN) guidelines were published for the detection, diagnosis and management of postnatal depression and puerperal psychosis, and for the prescription of psychotropic medication during pregnancy and breastfeeding (sign.ac.uk).

Using methodology established by SIGN, comprehensive literature searches on pre-determined questions were followed by expert independent reviews of evidence. This led to the development of evidence-based recommendations graded according to strength of evidence.

Results: We found enough evidence to recommend the routine antenatal screening of all women for risk factors for puerperal psychosis, and postnatal screening for depression using the Edinburgh Postnatal Depression Scale. There was evidence in favour of the use of antidepressants and psychological interventions for treatment of postnatal depression, and that it recommended that suitable facilities should be available to admit all women with their babies when necessary. LOCAL guidelines made specific recommendations regarding the use of psychotropics in pregnancy and breastfeeding, seemed to achieve a balance between the need for effective treatment of significant maternal illness and the importance of minimising risk to the foetus or infant.

The level of care for women at risk of, or suffering from, perinatal mental illness is very varied. These guidelines provide specific recommendations that ensure minimum standards of care at a national level but which
Inclusion of all pupils into mainstream education

C. CRUICKSHANK, L.A. CURRIE & K. RITCHIE, Psychological Service, St. Aloysius Primary, Chapeltown.

Inclusion has been described as the ‘process involved in making mainstream schools accessible to all young people in terms of curriculum and teaching, organisation, management, the physical environment, ethos and culture’ (Swain & Cook, 2001). Arguments for inclusion stem from two sources: legislation and pragmatic sources.

The presumption of mainstreaming from a legislative point of view relates to human rights and culture’ (Swain & Cook, 2001). Arguments for inclusive schooling stem from two sources: curriculum and teaching, organisation, and culture.

In the UK, the Education Act 2002 requires all schools to promote the inclusion of all pupils with learning difficulties and other special educational needs within mainstream schools and settings. The aim is to provide a single environment in which all pupils, including those with special educational needs, have access to the same opportunities as their classmates.

Coping in the workplace: Developing (or preserving) potential in adults with a progressive disorder

J. EDSOND, P. BANKS, R. PETTY & S. RIDDELL, University of Glasgow.

Although muscular dystrophies are relatively rare estimates suggest that 1 in 3000 adults in Scotland may be affected. Until recently the impact of such disorders was assessed in terms of prevalence or physical consequences. However, attention has turned to the broader issues of disability and the economic and psychological consequences.

Method:
Participants were 30 people with muscular dystrophy (PwMD) recruited from the West of Scotland muscular dystrophy clinic. They completed measures of coping, psychological adjustment and mental health.

Results:
Scores derived from the SF36 were analysed using a three-cluster solution. The results showed that PwMD can be classified into three groups: (1) Physically, socially and emotionally healthy, (2) Physically poor/socially and emotionally satisfied (N=21), and (3) Physically poor/socially and emotionally poor (N=32). Analysis revealed no difference between groups in terms of age, gender, time since diagnosis, satisfaction with information or life expectations.

Conclusions:
This study is the first to test self-regulatory theory as an explanatory framework for suicidal behaviour. The first pathway suggested an indirect effect of past suicidal behaviour on less adaptive coping and subsequent hopelessness. The second pathway was tested using the levels of suicide risk and hopelessness. The results provide support for the conceptualisation of suicidal behaviour within a self-regulatory framework as a failure of self-regulation. Moreover, they suggested that psychological constructs (control, identity, timeline and coping) have their effect even when past suicidal behaviour is taken into consideration. These findings have implications for mental health professionals and ought to be tested within a prospective design.

The effect of lengthening post-question pauses on students’ response

J. McKECHNIE, Glasgow Caledonian University.

Objective: To ascertain whether increasing waiting time following a question will increase students’ response.

Design: A between subjects experimental design was utilised with the independent variable being length of post-question pause, and dependent variable the amount of student response. Methods: A lecturer and two groups of students (N=28 and 27) participated. Two teaching sessions were tape recorded and transcribed. The first session was conducted as normal. In the second, the lecturer was asked to increase the waiting time after asking a question by counting slowly to six.

Results:
Overall, there was a slight non-significant increase in response when the lecturer increased the waiting time following a question. However, there was a significant positive correlation between the lecturers’ students’ response (r = 0.32) for pauses over three seconds duration. The number of responses increased from 68 in session 1 to 111 in session 2 which averaged over 6 seconds a difference of 27.7 seconds and 17.7 seconds respectively.

Conclusions: Allowing students more time to think about the question seems to increase the number of responses. However, when students needed to consider the question (this was
ascertained by the fact that they had not responded within three seconds) allowing them a longer time to think without using a prompt lead to a longer response.

Making new forays into the health domain: Teaching toddlers to brush their teeth


The application of psychology to health concerns has expanded rapidly in the past decade. There is, however, a considerable void, however, when it comes to health matters concerning children. The present study attempted to begin to address that gap by analysing the toothbrushing interactions between toddlers and their parents. This is an important area of study, because dental associations have developed guidelines for parents to recommended toothbrushing practices, but there are virtually no data available to help in evaluating the extent to which parents follow those guidelines. The standard methodological practice of studying developmental psychology, of videoing interactions and coding behaviours of interest, has the potential to provide very useful insights in this regard. The study reported here was designed to investigate the effectiveness of this approach and to derive prescriptions that could inform the direction for future research on this issue.

A total of 280 families were invited to participate, via postal letters, with 18 families responding to the invitation and eventually providing data. Children were 27 months of age at the time of participation, and the sample contained nine boys and 171 girls. Families participated by filming six toothbrushing sessions that took place in their home during a set 24-hour period. The videos were then coded for five key behaviours, all of which were chosen because they revealed the patterns and effectiveness of home-based toothbrushing sessions. Parents were asked to provide feedback ratings they had received several days later by rating the sessions for typicality, perceived effectiveness, and difficulty in managing behaviour. The findings showed that for the majority of the children, tooth brushing was carried out twice a day and that each session, on average, lasted for 142 seconds. This contrasts with the recommended practice of three to four minutes of active brushing session, three times per day. The concerns generated by this outcome are exacerbated by evidence that the brush was usually in a child’s mouth for only 56 seconds of a session, with parents tending to carry out the brushing for merely 20 seconds of that time. The findings also revealed that parents believe their brushing techniques are achieving clean teeth (as supported by the feedback ratings they supplied for the sessions) but fall far short of the standards set by dental associations. These findings thus offer a unique insight into the health behaviours of parents and children, and they provide a promising basis for further work in this area.

Is suicidal behaviour a ‘cry of pain’? Test of a model

R.C. O’CONNOR, University of Strathclyde, Glasgow.

Background: A new model of suicidal behaviour has recently been proposed (Williams & Pollock, 2000; 2001). The proponents of this model view suicidal behaviour as a ‘cry of pain’. Specifically, they argue that suicidal behaviour is reactive, a response to a negative situation that has three component factors: (i) the desire to escape and no rescue, (ii) the degree to which it leads to feelings of defeat/rejection/loss, etc.; (iii) how escapable they perceived the stressor to be; and, (iv) the perceived lack of rescue. Qualitative responses were also recorded.

Results: Both quantitative and qualitative analyses supported Williams and Pollock’s model of suicidal behaviour. It is compared with matched hospital controls, the parasuicides scored significantly higher on defeat/rejection, lower on escape and rescue. In addition, they scored significantly more highly on measures of depression, hopelessness and life events.

Conclusions: These findings have considerable methodological practice, within developmental area.

Autobiographical memory and hopelessness: The role of perfectionism

S. RASMUSSEN & R.C. O’CONNOR, University of Strathclyde, Glasgow.

Background: Recent research suggests that certain perfectionistic traits are implicated in increased risk for subsequent suicidal behaviour. However, the mechanism by which they have their effect remains unclear. It is recognised that suicidal individuals experience difficulties in retrieving specific memories, and it has been established that perfectionism dimensions, especially socially prescribed perfectionism (i.e. driven by the fear of failure) are important predictors of suicide. Autobiographical memories are important to recall autobiographical memories at two points in time (separated by four weeks).

Methods: 60 participants completed the Autobiographical Memory Test (AMT; Williams & Broadbent, 1986), self-report measures of perfectionism (Time 1), self-report measures of general health, optimism (Time 1 only), stress, and depression twice (at baseline and four weeks later).

Results: The results indicated: (i) a negative correlation between mean recall latencies for positive words and socially prescribed perfectionism. Furthermore, hopelessness was positively correlated with recall of positive words and depression, whereas depression was also found to be positively correlated with recall of negative words and socially prescribed perfectionism. Finally, higher levels of social perfectionism predicted higher levels of hopelessness and lower autobiographical memory recall.

Personal development planning for psychology undergraduates: Is it really necessary?

A ROSS, Glasgow Caledonian University.

In this paper I argue that the task of undertaking a degree in psychology requires a journey of self-discovery as well as a training in theory and research. Psychology lecturers in Higher Education should deliberately try to facilitate this process. Furthermore I suggest that the introduction of personal development planning in Higher Education and the use of a process of reflection can provide an excellent opportunity to begin to do so.

Practising as a professional psychologist requires personal awareness and requires that we know the psychological literature and where we stand relative to it. Although only a minority of students become professional psychologists many of them aim to and do enter people-related helping professions such as social-work, teaching, human resource management and psychiatric nursing. In these careers they will be facilitating other people’s self-discovery. In order to do so they must know and understand themselves well and have the ability to continue to develop their personal and professional lives.

In addition, I suggest that thinking about personal development planning is not merely bound up with our feelings and personal experiences. The task of mastering psychology to honours degree level requires:

1. Deep, strategic learning and reflection.
2. The skilful co-ordination of theory and evidence.
3. Both of these in the context of all aspects of human experience and behaviour.

Each of these requirements, I argue, are the requirements of personal development planning exercises undertaken in the context of a first level undergraduate modules in Learning and Cognition to support my argument.

Development of a coping scale for use with chronic illnesses, especially multiple sclerosis – Study

I. SINNAK-ARUPPAN (Rani Sinnak), Douglas Grant Rehabilitation Centre, Ayrshire Central Hospital.

Multiple Sclerosis (MS) is a chronic disease and a significant source of stress. The onset is in young adulthood. Treatment is limited and ineffective. The disease is characterised by unpredictable
periods of remission and exacerbation of symptoms resulting in poor coping and impaired quality of life. Cognitive therapy is an important component in the management of this disease. Perception plays a major role in coping. A literature search showed no evidence of measures on perception of coping in chronic illnesses. The aim of this research was to devise an appropriate measure of perception of coping in MS patients.

The study has two parts: part one is the devising of the scale, and part two is to establish reliability and validity of the scale. The latter was attempted by using the Hospital Anxiety and Depression Scale, the General Health Questionnaire (28) and the COPE Scale. The results showed that the developed scale is reliable, but further research is needed to validate with the above scales. In failing to validate with the above scales, it can be stated that the newly-developed scale is not reliable to measure the extent of anxiety, depression, psychiatric caseness, or coping abilities. Further research is required to establish validity using other scales and a larger sample size. This work is currently being undertaken.

Patients with neurological disorders enter rehabilitation with varying degrees of disability and handicap. The questions were raised as to why some individuals with extensive degrees of disability are coping better than others with lesser problems. Patients who enter therapy enter with differing levels of control and perceptions, hence a scale such as this may enable the therapist to identify this concept, and tailor the course and style of therapy. The scale might also provide a useful index of progress in therapy since perception of coping should change during therapy.

The 2003 Annual Conference


The following abstracts were accidentally omitted from the August 2003 issue of Proceedings.

Money ethic: The impact of job status and personality R. COUSINS & R. RALLEY, Centre for Studies in the Social Sciences, Edge Hill, Ormskirk; J. MCLACHLAN, University of Stirling

Objectives: To investigate the importance of job status and personality in money ethic and attitudes to money. It was hypothesised that people who had not yet entered the workplace and full-time workers would differ in work ethic.

Design: The Money Ethic Scale and measures including work ethic, attitude to earnings, life, orientation, and personality (B15 G 5) were completed by people not yet in work (N=664) and full-time workers (N=807). Selection was by opportunity.

Results: Workers and non-workers differed significantly in money ethic: workers budget more and have better attitudes to money. They also have more of a sense of success and a motivator for non-workers. Workers esteem hard work more than the non-workers. With the exception of equity, these differences disappear when age is entered as a covariate. Additionally, personality-related variables contributed to money ethic. Perfectionism, and anxiety and depression had a better explanatory power of a fifth of the variance in factor budget. Factor and reliability analyses confirm that the Money Ethic Scale is reliable and factors (e.g. Budget, Evil, Motivator, and Success) measure independent constructs.

Conclusions: Personality makes an important contribution to money ethic and attitude to money resembles a product of more global experience than work status alone. Contrasting with the view that attitudes to money are established early in life, the results suggest that a maturational view of money ethic is required. The Money Ethic Scale is confirmed as reliable for UK data.

Changing perceived coping in chronic pain patients using a newly-developed scale – A pilot study I. SINNAK-ARUPPAN (Rani Sinnak), Douglas Grant Rehabilitation Centre, Ayrshire Central Hospital

Head injury presents an increasing problem, affecting a significant proportion of younger age groups resulting in significant barriers to the lifelong care. This pilot study will evaluate the impact of an educational training programme for family carers and their head-injured relatives. The objective is to reduce carer’s psychological distress and improve their ability to cope with and adjust to their head-injured relative. The study will comprise two phases of 12 weeks: the experimental and the control group. The carers and their head-injured relatives will be assessed using a variety of measures to determine the value of training. The head-injured will also be screened for cognitive problems. The experimental group will be assessed before and after training while the control group will be assessed at the same time intervals as the experimental group. Success will be evaluated in terms of improved self-esteem, reduction in anxiety and depression, and improved coping skills. The results will determine whether a full-scale study is justified and which factors should be considered in its formulation.

This research proposal was submitted to the CSO for funding in August 2001. This has now been granted. The majority of this finance was used to employ a Research Assistant in February 2002. Participants have now been recruited from a register at the Douglas Grant Rehabilitation Centre and the project is currently nearing its mid-point.

Measuring mental toughness: The validity and reliability of the Psychological Performance Inventory (PPI) J. GOLBY, M. SHEARD, & A. VAN WERSCH, University of Teesside.

In spite of the identified need for a robust measure of mental toughness, in sport, to date, little research has been published on the norms, validity and reliability of the Psychological Performance Inventory (PPI) (Loehr, 1986).

Objectives: As a preliminary stage of ascertaining the psychometric properties of the PPI, this study was designed to test, first, the concurrent validity of the questionnaire against Maddy and Khoshaba’s (2001) Personal Views Survey III-R, which assesses psychological hardness, a construct similar to mental toughness. The second objective was to test the internal consistency of the PPI on mental toughness related to sports performance.

Design: The PPI is a 20-item scale that yields an overall mental toughness score, as well as scores for the seven six-item sub-scales: self-confidence, negative energy control, attention control, visualisation and imagery control, motivation, positive energy, attitude control.

Scores were recorded on a five-point Likert scale anchored by ‘almost always’ and ‘almost never’. The responses to this questionnaire allowed the subscales to be tested.

Methods: A sample of 231 competitors completed the PPI and PVSSI-R.

Results: Concurrent validity was found to be satisfactory: r = 0.32; p < 0.01. The internal consistencies of six of the subscales were good, ranging from 0.79 to 0.89. Negative energy control showed less satisfactory internal consistency (0.52).

Conclusions: The results of this study suggest the potential value of the PPI, subject to further confirmatory testing.

Improving perceived coping in chronic pain patients using a newly-developed scale – A pilot study I. SINNAK-ARUPPAN (Rani Sinnak), Douglas Grant Rehabilitation Centre, Ayrshire Central Hospital

This project reports a pilot study involving the implementation of a multi-disciplinary cognitive behaviour therapy (MDCBT) group programme aimed at modifying the functional components of perceptions in chronic pain patients as assessed by a newly-developed Perceived Coping Scale (PCS). The usefulness of the newly developed scale and the efficacy of the multi-disciplinary programme were examined using a waiting time, pre-test and post-test design. Four groups of chronic pain patients, comprising of 28 subjects, completed a 10-week MDCBT. The results indicated that significant positive changes can be achieved in patients’ coping perception using a multi-disciplinary approach. A scale such as the Perceived Coping Scale is a useful tool in rehabilitation programmes.

Patients with chronic pain enter rehabilitation with varying degrees of disability and handicap. The questions were raised as to why some individuals with chronic pain cope better than perhaps others. Patients who enter therapy enter with differing levels of control and perceptions, hence a measure such as the PPI might also provide a useful index of progress in therapy since perception of coping should change during intervention.

The equations of life, the results suggest that a maturational view of money ethic is required.
Philosophical views on human nature during the latter half of China's ancient period

M. CHEUNG CHUNG, University of Plymouth.

There are four main periods of Chinese philosophy: the ancient (until 221 BC), the middle (221 BC–AD960), the modern (1960–1912) and the contemporary periods. Within each of the main themes of philosophical thought within these periods was pertinent to the notion of human nature. This paper is intended to describe some of the philosophical thoughts on the notion of human nature during the second half of the ancient period. It will begin with the philosophical thoughts of the first opponent of Confucius, Mo Tzu. Attention will then be shifted to the three main phases of Taoism which are represented by the thinkers Lao Tzu and Chuang- Tzu. To close the paper, the Yin-Yang school and the Legalist school will be mentioned.

Does Jung have a bad press?
The Undergraduate Textbook as an introduction to the personality theory of C.G. Jung

C. CRELLIN, West Sussex Health and Social Care NHS Trust.

The textbook is the main source of comparative evaluations of the different theories. These textbooks have an enormously influential role in defining which theories are important in the field and in establishing what is accepted as central to an area of study. Thus, textbooks have been shown to differ from general science textbooks in being less concerned with ‘fact making’ than with evaluating methods, and research results (Smith, 2001). They aim to instruct the student in the process of building an evidence base. Consequently, many personality textbooks pay as much attention to outlining their criteria for comparison as to the results of the comparison itself. Maddi (1988) classifies introductory textbooks as either ‘benevolent eclectic’ or ‘partisan zealotry’. However, textbook descriptions of Jung rarely fall within the ‘benevolent eclectic’ categorisation. This may be because their authors’ preference for scientific approaches to personality is rather strained when it comes to Jung’s highly idiosyncratic balance of normothetic and nomothetic approaches with its mixed science and humanities methods and Jung’s philosophical thinking-style. I have examined many English-language undergraduate textbooks of personality. Some have run into many editions and have been in use for one or two decades. Together, they represent half a century of undergraduate courses. Though varying in their coverage of Jung, they do not appear to be the original sources of Jung’s ‘bad press’. Instead, those that are critical tend to repeat biographical details and critiques made by hostile biographers and by other personality theorists, often without quoting the sources of these remarks. Thus some texts may perpetuate myths by becoming the channel through which they are communicated.

Imitation: Some practical and conceptual problems

D. FABER, University of Liverpool.

In the 19th century the term ‘imitation’ was used to describe the observation of similar symptoms in more than one disorder – usually neurological. Though varying in their coverage, these terms, however, provided only conceptual problems for practical diagnosis and analysis. These terms are critical tend to repeat biographical details and critiques made by hostile biographers and by other personality theorists, often without quoting the sources of these remarks. Thus some texts may perpetuate myths by becoming the channel through which they are communicated.

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Experience and religion
relationship between psychology
Taking William James’s
G. RICHARDS, BPS History of Psychology
Beyond demonstrations of moral dilemmas.
philosophical argument. The paper ends with
moral philosophy and offering a commentary on
debates over character and virtue ethics in recent
emerging literature, outlining the background in
philosophy of mind are rather remote from our
philosophy and psychology have been dominated
because connections between academic
philosophy and psychology have been dominated by
exchanges between philosophy of Mind and
cognitive or cognitive neuro-psychologists. But
also welcome from a social psychological
perspective because the debates within the
philosophy of mind are rather remote from our
interests and concerns and maybe moral
philosophy has more purchase on our interests.

This paper offers a critical review of this
emerging literature, outlining the background in
debates over character and virtue ethics in recent
moral philosophy and offering a commentary on
the way that research findings in social
psychology are interpreted and used in
philosophical argument. The paper ends with
some reflections on the idea that social
psychological research can be understood as
motivated by providing thought provoking
demonstrations of moral dilemmas.

Beyond The Varieties: Towards a
standpoint for addressing the
relationship between psychology
and religion
G. RICHARDS, BPS History of Psychology
Centre, London/Staffordshire University.
Taking William James’s Varieties of Religious
Experience as a canonical point of departure, this
paper will consider how the issue of the nature of
the relationship between Psychology and religion
now looks, a century after its publication. It will be
argued that while James was writing in a context
still dominated by ultimately ‘religious’ modes of
subjectivity, and while himself a representative or
agent of a new ‘psychological’ mode, this still
‘religious’ mode still set the parameters for his
own thinking. We are now in a radically different
situation where a historical understanding of the
Psychology-Religion relationship demands a
suspension of identification with either in an effort
to move beyond the polarity. This is as much a
personal challenge as an intellectual one. The
paper is thus partly in the nature of a ‘progress
report’ on the author’s efforts to establish a
satisfactory position from which to analyse and
comprehend the issue, which is ultimately one of
the problems we face in our quest to
understand ourselves.

The prisoner’s dreams: The new
BPS History of Psychology Centre –
an outline of resources and some
thoughts
G. RICHARDS, BPS History of Psychology
Centre, London/Staffordshire University.
The establishment of the BPS History of
Psychology Centre marks a major development
both for British History of Psychology and for the
BPS itself. The Society archives will be made
easily available to scholars and researchers for
the first time alongside (in due course) a library
collection. The archives have also been greatly
enlarged recently by the transfer of material from
the main Leicester office. This paper will offer an
overview of the kinds of material currently held at
the Centre, and offer some thoughts on how it
might be used and its potential for further
between left and right have merged into a
moderate centre following the end of the Cold
War, and where changes in the modes of
production have made old divisions irrelevant.
The defenders point to continuing
authoritarianism in the world at the levels of
attitude, personality and politics.

The mentality of apes: A filmed
replication of Kohler’s study
D. STEVENS, Thames Valley University.
Between 1913 and 1917 Wolfgang Kohler carried
out a series of studies on problem solving among
chimpanzees living on the island of Tenerife in a
colony originally established by the Prussian
Academy of Sciences. The key concept of these
studies was that of ‘insight’, but the German word
‘umwege’ more literally means ‘roundabout’.
Kohler’s studies dealt with making and use of
implements such as sticks and boxes, the
negociation of detours, and issues of chance.
Kohler was critical of Thorndike’s contemporary
criticised for ignoring the work of contemporaries
in this area, and Levenstein’s Enquete Ouvriere.
Hayek’s studies deal with making and use of
implements such as sticks and boxes, the
negociation of detours, and issues of chance.
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satisfactory position from which to analyse and
comprehend the issue, which is ultimately one of
the problems we face in our quest to
understand ourselves.

British pioneer women psychologists
E. VALENTINE, Royal Holloway, University
of London.
The life and work of seven early British women
psychologists (Sophie Bryant, Alice Miller, Beatrice
Edgell, Victoria Hazlitt, Susan Isaacs, Mary
Smith and May Smith) is briefly reviewed and
following the life of each. The formative
influences on their pursuit of psychology as a
career varied from personal motives to accidental
contingencies. (2) Although all were trained by
and/or engaged in (sometimes
Hayek -- the psychologist
N. WETHERICK, Edinburgh.
Friedrich Hayek (d.1992) is known as a major
contributor to modern economic and social theory
but early in his life (c.1920) he spent some time in
Von Monakov’s laboratory of brain anatomy and
his work there inspired ideas in his later
psychology which were far in advance of their
time. His subsequent career led in a different
direction but in 1948 he returned to the subject,
publishing The Sensory Order in 1952. This book
had no influence at the time and was widely
criticised for ignoring the work of contemporaries
in this area, and Levenstein’s Enquete Ouvriere.
Hayek’s studies deal with making and use of
implements such as sticks and boxes, the
negociation of detours, and issues of chance.
Kohler was critical of Thorndike’s contemporary
influences on their pursuit of psychology as a
career varied from personal motives to accidental
contingencies. (2) Although all were trained by
and/or engaged in (sometimes
significant) collaborations with male
psychologists, they achieved substantial
independent critical work. He regarded the
emerging body of research and
Hayek’s ideas and to
the fact that some of them have not yet been
recognised at their true worth. This paper will
endeavour to extend and refine Steele’s analysis.

Archetype and Psychodynamic
Process in the Lord of the Rings
Saga
P. ZIOLO, University of Liverpool.
The Lord Of The Rings has been voted the ‘greatest book ever written’. At the same time, many
prominent members of the ‘literary establishment’ declare that they openly detest the
work. Why? While there can probably be no
doubt that The Lord of the Rings is destined to
be accounted a literary ‘classic’, what makes a
'classic’ a ‘classic’? In this presentation I propose
to examine the genesis and ‘fractal expansion’ of
archetypal images and the psychodynamic
processes through which they interact and
evolve, from The Hobbit, through The Lord of the
Rings to The Silmarillion – all from the
perspective of a simple Hobbit. I will conclude by
discussing why these particular works should
have had a major, if controversial impact at
this moment in historical time.
Northern Ireland Branch in conjunction with the Scottish and Welsh Branches Annual Conference

The British Psychological Society
2004 Proceedings

Social identification and outgroup attitudes in Northern Ireland

Background: Despite decades of intensive conflict between the two main religious communities in Northern Ireland, the majority of research in this area has tended to suggest that prejudice is not an especially prevalent characteristic of Northern Ireland.

Aims: We propose to investigate how this finding may be a reflection of the methods employed to measure this phenomenon rather than an accurate portrayal of the situation.

Main Contribution: Specifically, we argue the need for a more precise conceptualisation of identification. Using a more specific conceptualisation of the construct, we expect to be able to evaluate the extent to which the methods employed are attuned to the phenomenon under study.

Conclusions: Greater conceptual precision is necessary and informative for an in-depth understanding of the psychological processes involved in intergroup conflict. Only then, can we draw any definite conclusion with regard to the nature of prejudice in Northern Ireland.

Promoting exercise amongst adults with mental illness: An integration of the transtheoretical model and the Theory of Planned Behaviour
P. CAMPBELL, D. MACAULAY & J.C. LESLIE, University of Ulster.

Background: The effects of physical activity and exercise on physical health have been documented and general practitioners have realised the clinical advantage of advocating exercise amongst their patients. There is also growing evidence of a beneficial effect of exercise on psychological well-being and mental health.

Aims: To investigate the attitudes held towards exercise by mental health practitioners and how these attitudes influence both their exercise behaviour and whether or not they advocate exercise to their clients.

Method: A survey of mental health professionals was conducted to measure the variables as well as exercise and exercise advocacy behaviours.

Results: Preliminary results show that attitudes to exercise are correlated with both exercise behaviour and exercise advocacy behaviour in mental health professionals.

Conclusions: Results are discussed with reference to the TPB and the Transtheoretical Model of Behaviour Change.

The development of flag recognition in children, emblematic of their national identity
J.C. LESLIE & F. CANDY, University of Oxford.

Background: The age at which children become aware of cultural symbols has been highlighted in the debate arising from the renewed interest in social-political development of children.

Aims: This experiment examines the age at which children are able to classify flags that are emblematic of their identity, and whether or not a working class child will develop the ability to recognise flags earlier than middle class children.

Method: 280 Participants aged between five and ten were tested. The sample was drawn equally from working class and middle class backgrounds. Each child was presented with six flags (Northern Irish, British, Irish, French, American, and European) and was asked to...
select the following flags; 'theirs', the Northern Irish, the British, and the European.

Results: The youngest children have only a rudimentary knowledge, and the oldest have not fully grasped the significance of flags.

Conclusions: This study demonstrates some of the complexities involved in establishing children’s understanding of cultural symbols.


Background: Children with disorders like Conduct disorder resist attempts to have their behaviour controlled. If some of these children are engaging in countercontrol then current methods of control could be compound the problem rather than solving the problem. To begin to consider problems of control from a countercontrol perspective, information needs to be gathered regarding need to be reviewed and the conditions that either promote or prevent it.

Aims: To investigate the extent to which countercontrol occurs in schools and the variables associated with it.

Method: Questionnaires were administered to over 1300 children, and interviews were conducted with approximately 7% of teachers from Australia, New Zealand, and Singapore.

Results: Approximately 10% of students confessed frequently. Teacher characteristics were unrelated to students’ self-report of countercontrol.

Conclusions: Countercontrol is an explanation for some problems related to disobedience, noncompliance, and disruption. To address the issue of countercontrol, existing methods of control need to be reviewed and new methods need to be investigated.

Autism: A parental evaluation of Applied Behaviour Analysis K. DUFFY, M. KEENAN & K. DILLENBURGER, University of Ulster at Coleraine & Queen’s University Belfast.

Background: There is overwhelming evidence that Applied Behaviour Analysis (ABA) offers the most effective form of intervention for children with autism spectrum disorder (ASD).

Aims: To provide evidence about how parents perceive and evaluate ABA programmes.

Methods: A parental programme evaluation was undertaken.

Results: Parents reported a positive impact of ABA on their children’s social and emotional competence, and how to use ABA in conjunction with other therapies and interventions. They reported a significant impact on child and family functioning and parent self-esteem and the achievement of concrete goals for children.

Conclusions: Discussion centres on the context of anti-discriminatory and evidence-based practice.

Does dissociative identity disorder exist in the Northern Irish psychiatric population? A blind diagnostic—structured interview assessment M. O'KANE & C. MULHOLLAND, University Belfast.

Background: To control for a number of confounds related to the presence of dissociative identity disorder (DID).

Aims: To investigate the diagnostic criteria and characteristics of DID in a clinical population in the United Kingdom.

Methods: Questionnaire and structured interview. Instruments utilised in the structured interview were the Dissociative Disorders Interview Schedule (Ross et al., 1989), the Dissociative Experiences Scale (Carlson & Putnam, 1993) and a 10-item Somatoform Dissociation Questionnaire (Nijenhuis, 1999).

Results: Initial results indicate the existence of DID in complex psychiatric presentations in Northern Ireland.

Conclusions: Implications for mental health assessment and treatment are considered.

Accuracy and contextual control in non-sexually abused children K. DUFFY, M. KEENAN & K. DILLENBURGER, University of Ulster at Coleraine & Queen’s University Belfast.

Background: With increased reporting in the last decade of childhood sexual abuse, it has come to the attention of the law that this has come heightened involvement by the justice system. One consequence of this is the renewed debate concerning the role-play in children’s testimony.

Aims: This paper explores the role that contextual cues play in accurate and inaccurate sorting behaviours and verbal recall of non-abused children.

Method: 13 children (ages six to seven) were trained to respond differentially to two arbitrary stimuli and then asked to verify to a verbal social experience. In Phase 1 subjects were randomly allocated to one of two groups, the fluent group or the non-fluent group. Two arbitrary stimuli were then established as contextual cues. Did happen or Did not happen, using differential reinforcement. In Phase 2 subjects were exposed to a role-play in which each child was placed into one of two conditions: Did happen or Did not happen, using differential reinforcement. In Phase 3, the arbitrary stimuli as contextual cues, children were tested for accurate and inaccurate sorting accounts of events that were depicting usual and unusual activities. In Phase 4, each child was asked to verbally report events that occurred in the role-play in the presence of the context cues.

Results: The findings revealed that a distinctive pattern of responding emerged for the respective groups; the fluent groups were more accurate and exhibited less bias than the sorting and verbal recall task than the non-fluent group.

Conclusions: It is argued that if stimulus control over sorting responses can be effectively established then there would be enormous implications for the development of screening procedures in CSA.

Aggression after head injury: Preliminary findings using the revised Aggression Questionnaire K. DYER, R. BELL & R. RAUCH, Queen’s University Belfast.

Background: Aggression is a common sequela of head injury, and therefore, research into this area has been mired by methodological confounds. The Buss-Perry Aggression Questionnaire (BAQ) is the most commonly used tool to assess head-injured individuals and has been recently revised.

Aims: To control for a number of confounds introduced in the literature. Although the research is not yet complete, this paper gives some of the preliminary findings on aggression, as measured by the BAQ and its revised form.

Methods: A number of head-injured individuals were measured, including aggression and social desirability. Assessment was conducted on a head injury group, a spinal injury group, and a non-injury group.

Results: Early analysis using ANCOVA to eliminate social desirability revealed there was a significant difference between the three groups on both the BAQ and revised BAQ.

Conclusions: The results support the view that people with head injury are more aggressive than other patient groups and clinically normal controls.


Background: There is phylogenetic, neurophysiological, and psychosocial evidence for stress effects; to show how stress effects may be basic operating system for interacting with our environment. The Integrative Theory of Emotional Responses (Evison, 2008) has three distinct emotional operating modes. Aims: To show how a fully functional theory of emotions can explain the development of stress phenomena, provide criteria for designing and evaluating stress management strategies, and suggest conditions for promoting wellbeing. To reveal the evidence that laughter has the most potent of the strategies for reducing psychosocial stress.

Main Contribution: Pleasurable emotions motivate and organise mind/body resources for functional processes of learning and development that form our ongoing mode. Painful emotions motivate and organise mind/body resources for functional emergency responses to threats to our physical and social wellbeing. Dysfunctional emotional responses demonstrate that positive emotions—aroused in response to threats—are not switched off when the threat ceases operating. Such responses represent locked up resources of body and mind, forming the building blocks of stress effects. This overall functional perspective will be used to derive the mechanism of laughter to show how stress effects may be prevented, or reversed, at any stage; to produce a taxonomy of interventions effective for transforming dysfunctional emotional responses into functional ones; and to review the evidence for laughter being the most potent of the strategies for reducing stress. The perspective will also be applied to considering the conditions that promote well-being, separately from those which decrease stress.

Conclusions: Identifying the distinctions between functional and dysfunctional emotional responses results in testable hypotheses around stress management issues, and provides new possibilities for tackling the increasing burdens of stress on individuals and organisations.

Handling hard-to-manage behaviours in pre-school provision H. FOOT, L. WOOLFSON, M. TERRAS & C. NORFOLK, University of Strathclyde, University of Paisley & University of Edinburgh.

Background: Expanding numbers of children attending pre-school provisions across the UK places additional strain on pre-school staff. This expansion also increases the numbers of children perceived by staff as presenting hard-to-manage (HTM) behaviours.

Aims: The paper outlines a study (supported by the Nuffield Foundation) designed to explore staff perceptions of HTM behaviour, the strategies they use to manage it and their communication with parents about HTM issues. Method: A series of semi-structured interviews were conducted in a variety of Local Authority and private nurseries and playgroups across the central belt of Scotland and with 32 pre-school staff.

Results: Results showed that aggression,
Conclusions: The findings, to date, highlight the difficulties (and potential benefits) of offering children for learning disabilities as well as reinforcing the importance of appropriate service provision. Further analysis will provide insights into more detailed aspects of caregiving including carers’ own views.

Indicators of risk following sharps injuries

W. CASTY, C.M. HUGHES & E.A. CAMPBELL, Dept. of Clinical Psychology, Royal Group of Hospitals Trust, Belfast & Dept. of Psychological Medicine, University of Glasgow.

Background: Sharps injuries are common amongst Health Workers (HWs), resulting in risk of transmission of blood borne viruses. A cognitive model of anxiety predicts that perceptions of personal, social and professional risk and coping will influence psychological outcome. Aims: Establish factors that predict psychological outcome. Method: 108 HWs with sharps injuries were followed up at one week, one month and four months. Measures of anxiety, depression and trauma were administered. Results: Source of injury, perceived awfulness, perceived support, employer attitude to wellbeing, management response and clinical cognitions were predictive of anxiety and trauma. Conclusions: The findings lend support the cognitive model however, multi-variate analyses are required at completion of data collection.

The costs of caring: Social network analysis applied to carers of infants with Type 1 diabetes

J. INNES, B. BUNTING & V. COATES, University of Ulster.

Background: A significant increase in the prevalence of type 1 diabetes in the last 20 years is of serious concern. Failure to manage the condition is believed to be a result of poor psychosocial adjustment and lack of social support. Aims: To identify and address inadequacies in the provision of support experienced by parents and other significant others of the patients. Main Contribution: Developing the use of social network analysis to enhance the provision of support for families with diabetes. Conclusions: Social network analysis provides both a visual and mathematical analysis of human relationships. Its application to this group will identify strengths and utilising resources by statutory and voluntary bodies.

Caregiver strain and coping strategies in parents of children with learning disabilities in the Republic of Ireland

K. KENNY & S. McGILLOWAY, National University of Ireland at Maynooth.

Background: Despite recurring concerns about the role and appropriate support of informal carers, we know relatively little about the experience of caring for children with learning disabilities living in Ireland. Aims: This study provides an in-depth description and analysis of the nature and consequences of care for 32 (mainly female) parents of children (<18) with a wide range of learning disabilities living in the Greater Dublin area.

Method: Participants completed a Parental Questionnaire incorporating a Profile Form, the Caregiver Strain Questionnaire (Branman et al., 1997) and a series of Likert rating scales and open-ended questions about care tasks and behavioural difficulties; coping strategies (based on Burr & Klein’s (1994) conceptual framework); positive and negative aspects of caregiving; and service provision. Results: Preliminary findings indicate that participants showed high levels of subjective and objective caregiver strain and that most were not receiving adequate support. However, parents employed a range of strategies to help them cope more effectively with their role.

Conclusions: The findings, to date, highlight the difficulties (and potential benefits) of offering children with learning disabilities as well as reinforcing the importance of appropriate service provision. Further analysis will provide insights into more detailed aspects of caregiving including carers’ own views.
Correlates of performance anxiety in practical music exams

K. McCAMBRIDGE & G. RAE, University of Ulster, Coleraine.

Background: Performance anxiety has been a recognised phenomenon among musicians.

Aims: The focus of this study was to test the psychometric properties of the Perceived Performance Anxiety scale (PPAS) and to examine the effect of personality factors and gender on performance anxiety.

Method: 120 musicians (36 males and 84 females) aged 15 to 18 years (M = 16.5, SD = 0.97) completed the EPQ-R short scale and the PPAS, a self-report measure of performance anxiety in practical music exams.

Results: Principal components analysis indicated that the PPAS scores were best represented by a single component with an internal consistency reliability of 0.88. Females had significantly higher scores on the PPAS. A significant negative correlation between PPAS scores and psychotism, and a significant positive correlation between PPAS scores and neuroticism scores was obtained. The correlation between PPAS and extraversion was negative but not significant.

Conclusion: The relevance of these findings for music teachers is considered.

Irritable Bowel Syndrome and psychological well-being: The mediating effects of anxiety, self-esteem and locus of control

C.A. McCLENANAH, University of Ulster, Magee Campus.

Background: Psychosocial factors do not define Irritable Bowel Syndrome (IBS) and are not required for diagnosis but they do modulate patients’ behaviours, can affect clinical outcomes, and, can cause psychological distress. While it is estimated that 20 to 25 per cent of adults in the Western world have IBS symptoms up to 70 per cent of sufferers may not seek medical treatment for these symptoms. Therefore, most research on IBS has focused on those who do not seek health care.

Aims: To investigate the extent to which gender, anxiety, self-esteem and locus of control mediate the link between IBS symptoms and psychological well-being among IBS ‘patients’ and IBS ‘non-patients’.

Method: A questionnaire based on the Rome II criteria for IBS symptoms, and, including measures of anxiety, self-esteem, locus of control and psychological well-being, was administered to undergraduate students.

Results: The results are presented and discussed in relation to psychological treatment/intervention in relation to psychological treatment/intervention to reduce IBS symptoms.

Using prenatal habituation to predict postnatal cognition

N. MCCULLOUGH & A.G. GALLAGHER, School of Psychology, Queen’s University Belfast.

Background: Caring for a relative with schizophrenia may have a negative impact on the caregiver’s quality of life. The majority of research has investigated this by applying the concept of burden. However, this approach may be seen to overlook the subjective nature of care giving.

Aims: One alternative is to measure individual quality of life, which allows for caregivers to indicate their experience of care giving.

Method: 37 participants (36 female, 1 male, mean age 58 years) caring for relatives with schizophrenia completed the Schedule for the Evaluation of Individual Quality of Life (SEiQoL).

Results: This measure identified areas of greatest concern to those caring for a relative with schizophrenia. Whilst there was overlap with traditional burden measures, the relative importance attached to each area varied among caregivers.

Conclusion: The areas identified are discussed along with the implications of these findings for those caring for relatives affected by schizophrenia.

Test self estimations of traditional and non-traditional students: Can self-efficacy be a determinant in ‘trying to teach an old dog new tricks’?

C.J. McDaid & C.A. Lewis, School of Psychology, University of Ulster, Magee Campus.

Background: With student enrolment increasing within universities, none more so than within the non-traditional student population, it becomes more relevant and deliberate and researchers to ascertain whether significant differences exist between these distinct student cohorts. One key area would be in self-efficacy.

Aims: To determine if any difference in self-efficacy exists between traditional and non-traditional students in university.

Method: An opportunity sample of university students (N = 248) from within social work and psychology degree disciplines were asked to estimate their self-efficacy before and immediately after completing a multiple choice test. A number of participants (N = 6) also were interviewed in respect to their response to the estimate of test performance.

Results: The participants were compared on their ‘before test estimate’, ‘after test estimate’, and ‘actual test score’, no differences between the groups were found. The interviews were analysed thematically to identify words/phrases common across all participants. Important emergent differences between the groups included, ‘Don't seem to have enough time to study/read’ (traditional student) and ‘Seem to be spending less time with wife and children’ (non-traditional student).

Child neglect-assessment and prevention

B. McDaniel & K. Dillenburger, School of Social Work, Queen’s University Belfast.

Background: Child neglect continues to be the most prevalent form of child maltreatment, yet it has received less research attention than other forms of maltreatment. This may be due to its subtle and long term detrimental effects on children’s physical, psychological and emotional development and wellbeing. Neglect differs from other forms of abuse because it is not always intentional or deliberate and may occur because of the parent’s lack of knowledge or skills.

Aims: To look at the application of behavioural assessment and intervention methods with a group of six young mothers whose children were at risk of neglect.

Methods: Instruments used in this study measure if mothers had the basic skills to carry out bathing and feeding their children.

Results: Mothers were able to score highly on each checklist, some mothers, however were unable to do this consistently and repetitively due to competing external contingencies. Although intervention was only successful in improving bathing skills, the assessment of feeding was able to identify difficulties arising during feeding, and indicate where further work needs to be undertaken.

The (mis)measurement of school bullying: The concurrent validity of bullying behaviours within Northern Ireland

C. McGuckin & C.A. Lewis, University of Ulster, Magee Campus.

Background: Bullying in schools is a worldwide problem (Smith, Morita, Junger-Tas, Olesw, Catalano & Sleet 1999). However, international comparison rates are potentially flawed and misleading due to different conceptualisation and operationalisations of bullying behaviours. Little is in fact known of the concurrent relationship between established measures of bullying. Little is in fact known of the concurrent relationship between established measures of bullying. Little is in fact known of the concurrent relationship between established measures of bullying. Little is in fact known of the concurrent relationship between established measures of bullying. Little is in fact known of the concurrent relationship between established measures of bullying.

Aims: To assess the concurrent validity of the most commonly used measures of bullying behaviours.

Method: Data is reported from a sample of almost 9000 pupils in Northern Ireland. The five most widely used measures in international research were administered concurrently.

Results: The data clearly demonstrate that although the measures are significantly associated with each other, prevalence rates differed markedly with respect to the four categories of actor in the bullying phenomena: bully, victim, bully/victim, and bystander.

Conclusions: On this evidence, the validity of international prevalence rates of bullying behaviours is challenged. It is proposed that future research should also consider the surrounding issue of the (mis)measurement of low level aggression within the school system.
Perceptual ability and feature integration in cerebral palsy sufferers
B. McILWRATH, R. COWIE & H. RAFFERTY, School of Psychology, Queen’s University Belfast.
Background: Many individuals with cerebral palsy also experience perceptual difficulties. Perceptual tests are carried out by occupational therapists, however, the nature of the underlying problem has yet to be addressed.
Aims: To explore whether the perceptual problems experienced by cerebral palsied individuals are related to problems in integrating simple features of an object.
Method: A computer-based programme presented participants with three lines, presented sequentially. Participants were asked whether the lines would form a triangle or an asterisk if presented simultaneously. The programme also presented four dots sequentially and participants decided whether they would form a triangle or a square if presented simultaneously. The scores of the cerebral palsied individuals were compared.
Results: There was a significant difference in performance between the two groups. However, some of the individuals in the experimental group achieved scores in the control range and a smaller number performed notably worse.
Conclusions: Feature integration does seem to play a part in the perceptual difficulties experienced by cerebral palsy sufferers. Further investigations into accuracy and speed to determine whether this is caused by impairment in the development of natural eye movements.

Predicting prejudice and discrimination toward homosexuals: An application of the Theory of Planned Behaviour
M. GILES, University of Ulster at Magee and Coleraine.
Background: Prejudice and discrimination have been found to be still prevalent toward homosexual males and females in society. The Theory of Planned Behaviour (TPB) has been widely applied in order to understand the relationship between attitudes and behaviour. In addition the TPB model provided a parsimonious explanation of behaviour on an individual level, i.e. motivational factors that may predict prejudice and discrimination toward homosexuals.
Aims: To apply the TPB model in relation to the understanding and prediction of prejudice and discrimination toward homosexuals within a given scenario.
Method: The TPB questionnaire was distributed, along with a scenario to a university sample (N = 300) at the University of Ulster at Magee.
Results and Discussion: A hierarchically ordered regression (hierarchical or stepwise) were used to examine the possible psychological predictions of the respondents’ behavioural intentions toward homosexuals, with some previous research findings sex differences were observed on many of the psychological variables. Within the TPB model they were asked how likely they were to discriminate against homosexuals. They were also referred to treatment and perceived behavioural control variables were found to be significant predictors of negative attitudes towards homosexuals.
Conclusions: The application of the TPB conceptual framework model will firstly suggest its efficacy in aiding in the understanding of respondents’ intentions toward homosexual males and females. Secondly it will add to previous research by examining the nature of attitudes toward homosexual males and females. Thirdly it will add to the on going research in the area of prejudice and discrimination toward homosexuals.

You cannot clap a ‘£’!!!
B. McVEIGH & M. KEENAN, University of Ulster, Coleraine.
Background: Typically, research into transformation of function has involved training a single function to one member of a stimulus equivalence class. Subsequent testing reveals that the other members acquire this function without explicit training. To date, however, the operant nature of many of the functions has been simplified. What are the reasons for doing this there are nonetheless limitations to the questions that can be asked with these behaviours.
Aims: The present experiments examined the effects of training a drawing response to members of a stimulus equivalence class. This was done across a number of conditions to determine how multiple functions in a stimulus equivalence class might interact.
Method: Two five-member equivalence classes (A1-B1-C1-D1-E1 & A2-B2-C2-D2-E2) were established for each subject. A ‘drawing’ response was added to each of various stimuli within these classes. The transformation of function were then carried out.
Results: Results indicate that not only do multiple functions interact but also the way they interact depends on the way they are trained.
Conclusions: The nature of the stimuli comprising the equivalence class also determines response outcomes.

The impact of erectile dysfunction on sufferers and their partners
C. McVEY, Dept. of Psychology, Glasgow Caledonian University.
Background: The impact of erectile dysfunction (ED) affects at least one in every 10 men (estimated 2.3 million men in the UK). Most recent global expectation is 300 million by 2025. Psychological factors account for approximately one third of cases. Potentially, these are related to physiological problems with interaction between these elements. As the male’s ability to have sexual interest and performance is not just a procreation but to feelings of masculinity and intimacy with partners, inability to perform has serious psychological repercussions.
Aims: To analyse the effects and hidden costs of ED and, using international survey data, analyse the main concerns of sufferers (and partners) with some reference to treatment.
Main Contribution: To raise awareness of the importance of treatment of ED in the context of distress and to analyse the psychological impact of ED and the effect of treatments on sufferers and their partners.
Conclusions: ED has serious repercussions for the man and his partner. Thus it merits serious consideration in terms of therapeutic intervention.

Predicting perceptions of segregation in Northern Ireland
U. NIENS, University of Ulster; A. CIANCIS & M. POOLE, University of Ulster.
Background: Perceptions of residential segregation have often been used in Northern Irish research to supposedly indicate actual levels of residential segregation. However the assumption that perceptions of segregation match up with actual segregation has never been tested systematically.
Aims: To explore predictors of perceptions of segregation using an ‘objective’ segregation index as well as social psychological factors possibly influencing perceptions of segregation.
Methods: Data from two random surveys of the Northern Irish population, conducted in 1998 and 2000, were reanalysed to investigate predictors of perceptions of residential segregation for Catholic and Protestant respondents.
Results: Overall education is the strongest predictor of perceptions of segregation. Additionally, significant percentages of variance could be accounted for by social class, ingroup and outgroup attitudes.
Conclusions: Social identity theory and minority-majority status of religious groups can be used to explain these effects.

Effects of video modelling on training and generalisation of social initiation and reciprocal play by children with autism
C.K. NIKOPOULOS & M. KEENAN, University of Ulster.
Background: A number of studies have shown that video modelling could be an effective strategy for teaching children with autism a variety of skills.
Aims: Two experiments were conducted to assess the effectiveness of video modelling to promote social initiation, reciprocal play, and generalisation in children with autism.
Method: A multiple baseline design across four children with autism were used. Each child watched a brief videotape showing a model and was engaged in a simple reciprocal play using one toy. After that behaviour had been established, generalisation across four other toys in the absence of a videotape was assessed.
Results: For all children social initiation and reciprocal play skills were enhanced and these generalised across novel objects, settings and toys. These effects maintained at a one- and three-month follow-up period.
Conclusion: Video Modelling could be a successful procedure for the target behaviours, without stimulus generalisation being under the effects of stimulus control.

Prospective cognitions and hopelessness: The effects of life orientation, stress and perfectionism
R.C. O’CONNOR, Suicidal Behaviour Research Group, Dept. of Psychology, University of Strathclyde.
Background: There is a growing body of evidence to suggest that a negative view of the future characterised by impaired positive future thinking is associated with increased hopelessness and suicide risk.
Aims: Within a self-regulatory framework, this paper aims to investigate the future thinking–hopelessness relationship more closely and to determine whether future cognitions moderate the relations between comparatively stable dimensions and psychological distress.
Method: Data from three surveys. Two of the studies are cross-sectional whereas the third reports a 10-week follow-up study. All participants completed the future thinking test and indices of psychological distress and depended on the aims of each study, measures of stress, optimism and perfectionism.
Results: Study 1 demonstrated, for the first time, that positive future thinking moderates the relationship between stress and hopelessness. The findings of Study 2 support the notion that perfectionism is best understood as a multidimensional construct and that its relationship with future thinking and hopelessness is not straightforward. Study 3 reinforced the importance of future thinking as a moderator in the prediction of distress.
Conclusions: The results support the postulation that future thinking, life orientation and perfectionism are mediated by different motivational and cognitive processes for positive mental health and suicide prevention are described.

Reliability of the California Critical Thinking Dispositions Inventory and the validity of the California Critical Thinking Skills Test
L. O’HARE & C. McGuinness, Queen’s University Belfast.
Background: Predominantly in Higher Education critical thinking is assessed using specific subject material presented in coursework and exam scripts i.e. domain dependent assessment. The California Critical Thinking Dispositions Inventory (CCTDI) and the California Critical Thinking Skills Test (CCTST) are multiple-choice psychometric tools. These tools measure critical thinking attitudes and abilities without assuming prior subject knowledge, i.e. domain independent assessment.
Aims: Firstly to compare the subscale reliabilities of CCTDI and a restructured version of the test. Secondly to show concurrent validity of the CCTST with other measures of ability/attainment.
Method: The restructured version of the CCTDI was produced by factor analysing responses of a UK undergraduate sample and sub-scale of data from two random surveys of the Northern Irish population, conducted in 1998 and 2000, were reanalysed to investigate predictors of perceptions of residential segregation for Catholic and Protestant respondents.

The British Psychological Society
2004 Proceedings
reliability was assessed using co-efficient alpha. Correlating participants' CCTST scores, Raven's test of non-verbal intelligence scores and total A-levels produced concurrent validity data on the CCTST.

**Results:** Mean sub-scale reliability increased from 0.63 (CCTDII) to 0.70 (Restructured CCTDII). CCTST scores correlated significantly with Ravens (r = 0.286, N = 213, p = 0.000) and with A-levels (r = 0.216, N = 144, p = 0.009); however A-levels correlated significantly with Ravens (r = –0.018, N = 148, p = 0.826).

**Conclusions:** Implications and future directions will be discussed.

**From victim to offender: A case study**

A. REA & O. TRAVERS, COSC Service, North Western Health Board, Sligo.

**Background:** One of the most challenging questions for social workers, teachers and public alike is how some individuals who have been victims of sexual abuse go on to perpetrate abuse against others, and thus continue the cycle of abuse.

**Aims:** To increase our understanding of the cognitive processes and distortions that play a direct role in the initiation and maintenance of sexual offending.

**Method:** This paper will focus on a case study of a man who has committed sexual offences and enrols us to his story from a victim who became a perpetrator.

**Results:** Cognitive distortions in order for the offender to avoid negative self-evaluation and accept the abuse and assist the breakdown of sexual inhibitions. Through listening to this man’s voice, we can comprehend the process of traumatic sexualisation, where abusive experiences are re-enacted both behaviourally and cognitively, in the progression from victim to offender.

**Conclusion:** This is only one aspect of our understanding and there are many reasons why a person goes on to sexually offend – no single theory can explain why and a number of theoretical models are discussed here.

The BBC Prison Experiment: Rethinking the psychology of groups and power

S. REICHER & A. HASLAM, University of St. Andrew’s & University of Exeter.

In this talk we will present the findings of the BBC Prison Experiment in which 15 men were divided into Guards and Prisoners within a simulated prison environment. The study was rooted in a critical social psychology perspective and the notion that people cannot escape the roles into which they are placed. We argue that both empirically and theoretically that understanding the extent to which people resist social systems as the basis of the premises of social identity theory, we designed ‘The Experiment’ in order to address factors which lead people to oppose as well as impose intergroup inequality. As expected, we found that the Prisoners only acted collectively and challenged the Guards when the system was made intolerable. However, unexpectedly we found that the Guards were unwilling to accept their position. Their failure to develop a shared social identity made them weak, divided, ineffective and despondent. Ultimately it led to a complete loss of power and the old prison system collapsed. In its place a ‘Commune’ arose, but that in turn was close to being replaced by a tyrannical social order at the end of the study. We argue that three critical lessons can be drawn from the study. First the role of the Guards is understandable as it fails to address the complex conditions under imposed social positions become assumed as social identities.

Social constructions of masculinity and violence in young men from marginalised communities: A qualitative study

J. REILLY, O. MULDOON & C. BYRNE, UNESCO Centre, UUC, Queen’s University Belfast & Bannside Community Project.

**Background:** Young men in Northern Ireland have been disproportionately involved as both victims and perpetrators of violence, during the Troubles and the peace process.

**Aims:** To explore social constructions of masculinity and violence in young men from marginalised communities.

**Method:** Four focus groups were conducted. Three groups comprised young men from a Catholic community (N = 7), a Protestant community (N = 8) and a Young Offenders Centre (N = 7). The fourth group comprised six community representatives. Grounded analysis by one researcher. Two key preliminary themes, reviewed by two researchers in an iterative process until consensus was reached.

**Results:** Violence was perceived as mandatory for young men and often contextually determined. Alienation from social control was normative and a masculine identity incorporating the capacity for violence was valued, despite acknowledged costs.

**Conclusions:** Initiatives aiming to address young men’s violence should consider constructions of masculinity in order to be relevant to participants.

Obtaining occupational psychology divisional membership of the BPS: C. RODGERS.

**Background:** The purpose of the DOP is to promote, develop and regulate the work of occupational psychologists in corporate, academic, vocational and private sector settings, so as to enhance the well-being and work-effectiveness of organisations and individuals.

**Aims:** The DOP through the committee Promoting the Profession is encouraging the development of occupational psychology through continual critical examination of its theoretical base.

**Main Contribution:** This poster will attempt to incorporate the DOP formulation of values, human benefit in Northern Ireland, knowledge and understanding of practice in organisational psychology. Work to-date from the Promoting the Profession Committee will be outlined on this poster.

**Conclusion:** In this way prospective occupational psychology students in Northern Ireland can incorporate an understanding of the importance and choice of specialisms in this domain.

Learning strategies in engineering education

N. SEERY, W.F. GAUGHAN & T. WALDMANN, University of Limerick.

**Background:** Variations in teaching styles and methodologies can frequently hinder learning, if they are not coordinated with the principal styles of the learner. Although students have their own unique modes of learning, many educationalists and psychologists have derived validated generalisations.

**Aims:** This paper examines the dominant learning styles of engineering students within the Manufacturing and Operations Engineering Department at University of Limerick and participants from four-second level schools.

**Method:** The Felder – Silverman Learning Style Model forms the basis of this research technique. This technique, determines a student’s preference for, or ability to gather and process information in a predetermined manner. The Felder – Silverman model states that a person’s preference on four dichotomous dimensions: Active/Reflective, Sensing/Intuitive, Visual/Verbal and Serial/Global.

**Results:** The research examines 239 subjects using the Index of Learning Styles (ILS) questionnaire and illustrates a significant preference for three style modes.

**Conclusions:** Class streaming and school type have an important influence on the development of the students’ learning style.

Factors contributing to post-conflict community development in Northern Ireland

P.W.G. SURGENOR & E. CAIRNS, University of Ulster, Coleraine.

**Background:** Research has accentuated an interplay in an application for, and uptake of, funding for community development in Catholic and Protestant communities in Northern Ireland. It has been suggested that Catholic areas display a greater sense of identity and cohesion, resulting in a closer, more collective community, with more effective leadership and organisational abilities.

**Aims:** This research intends to investigate similarities and differences in community development – with specific reference to institutionalism, collectivism and social capital – in Northern Ireland.

**Method:** Data have been gathered using qualitative techniques – four focus groups were conducted.

**Results:** Preliminary results suggest differences are not as pronounced or clear cut as initially considered.

**Conclusions:** Further research is required.

Improving and evaluating quality of life in dementia

L. THORGRIMSEN, M. ORRELL & B. WOODS, University College London & University of Wales.

**Background:** Quality of life (QoL) in dementia is receiving increased attention due to factors other than cognition being deemed meaningful when evaluating interventions, but is difficult to conceptualise and measure.

**Aims:** To investigate the validity and reliability of the Quality of Life – Alzheimer’s Disease Scale (QoL-AD); and also what effects an evidence-based psychological therapy programme has on QoL in dementia.

**Method:** Validity and reliability were investigated through focus groups, joint assessments and questionnaires (N = 60). Additionally, a single-blind randomised controlled trial was conducted of an evidence-based psychological group therapy programme for people with dementia (N = 100).

**Results:** The QoL-AD was found to have good validity and reliability, and demonstrated improvement of QoL in dementia was found. Significant associations between QoL and other variables were detected, and the intervention was found to be cost-effective.

**Conclusions:** It is possible to reliably assess QoL in dementia, and also to significantly improve QoL in dementia by using psychological interventions.

Early childhood loss: A pilot study of daughters materernally bereaved before 11 years old

A. TRACEY, University of Ulsan, Magee Campus.

**Background:** In recent years, there has been a shift away from the cause and effect perspective that early maternal loss results in mental health problems in adult women. Rather, there are mediating factors that can influence the long-term outcome for bereaved daughters (e.g. Harris et al., 1990; Hurd, 1991). Many of the previous studies have focused on psychiatric populations and are mainly quantitative in nature. To date, research investigating the effects of early loss has been carried out mainly in America and Britain. In relation to Ireland, early childhood loss has received little attention.

**Aims:** This research is a voice to adult daughters who have been materernally bereaved before the age of 11.

**Method:** Through semi-structured interviews, it examined daughters’ perceptions of how their lives have been affected and influenced by the loss.

**Results:** Key themes are discussed and conclusions are based on the present sample (N = 3).

The British Psychological Society 2004 Proceedings
Experiences with e-learning: Student's performance and perspective
D. UPTON & C.D. COOPER, University of Wales Institute & The University of Auckland.

Background: There is a great push for more online teaching methods from a number of sources in the expectation that it will improve both efficiency of teaching and student performance.

Aims: To report on the first year of the provision of an online health psychology module and the questions that have arisen from use of this material.

Methods: Health psychology is taught across a range of programmes at the University of Wales in the UK. Online teaching materials in health psychology have been developed ensuring that a range of courses and levels can access appropriate material for their course.

Results: Evaluation of the first year indicated a number of pertinent issues. Firstly, students performed at a higher level in examinations, than with 'traditional lectures' and their performance was correlated with usage of the material. However, there was some reluctance by the students to develop an independent learning style.

Conclusions: The development of the material to include interactivity, in an attempt to engage and motivate learners, thereby further developing independence is suggested and preliminary experiences with this form of material outlined.

Capability deterioration patterns in institutionalised and non-institutionalised older adults
K. WALSH & T. WALDMANN, University of Limerick.

Background: Vision, audition, manual/digit dexterity, attention/reaction and memory tests were administered to two groups of elderly people: those living in the community and those living in a retirement home. A principal component analysis was conducted.

Aims: To investigate the effect of institutionalisation in elderly people Main contribution: The findings are presented and discussed with reference to the associated literature. Implications of the findings are discussed: examining the effect of the findings assists in improving the quality of life for elderly people.

Conclusions: Two factors accounted for the majority of the variance in data from institutionalised group, whereas four factors accounted for the majority of the variance in community dwelling group. An example (11 institutionalised and 14 non-institutionalised participants) and the ratio of variables to cases (> 5:1) were not within the requirements of the factor analysis techniques the findings could not be relied upon. Therefore, with the assistance of the Berlin Aging Study, the analysis was repeated on data obtained from a similar set of tests for 69 institutionalised individuals (72 to 100-years-old) and 410 community dwelling older adults (70 to 100-years-old).

The cross-cultural differences in parenting styles and coping strategies in relation to depressive symptoms among Irish and Taiwanese university students
J.F. WANG & R. WILSON, Ulster University, Coleraine.

Background: Previous studies have revealed that parental bonding, family interaction, coping and social supports were related with depression. Maternal deprivation was considered as a crucial issue in the mental health. It is revealed that low parental care and high parental protection are linked with depression. Moreover, it is also indicated that poor family interaction is linked with poor psychological well-being. Coping strategies used and social supports perceived were also a crucial issue to mental health.

Aims: The aims of this study is to investigate the cross-cultural differences among parenting styles, family interaction, coping, and social supports in two separate cultures (Taiwanese and Irish) and examine the relationship among those variables in relation to depressive symptoms.

Method: Five standardised questionnaires were used (Parental Bonding Instrument, Family Assessment in relation to different conditions in the Present, Coping Questionnaire, Social support Questionnaire, IBeck Depression Inventory). In total 1064 students were recruited from the Universities in Northern Ireland and Taiwan.

Results: The result shows significant cross-cultural differences of parenting styles, family functions, and coping methods. More participants in Taiwan were depressed than in Northern Ireland. It is showed that more young people in Taiwan reported life events than the young people in Northern Ireland. Moreover, Taiwanese participants scored significantly higher scores in all the coping subscales than the Irish participants.

Conclusions: It is showed that interaction with parents and perception of family life are involved in the difference between young people in the two cultures in levels of depression.

Equal opportunities and the British Psychological Society
S. WARNER, SCPEO.

The British Psychological Society has a strong commitment to Equal Opportunities and is committed to a programme of action designed to make its policy effective both in its work as an professional association and as an employer. The Standing Committee for the Promotion of Equal Opportunities (SCPEO) plays an important role in assisting the Council in improving the quality of life in both its membership and membership of the Society. This session is aimed at providing background material and discussion with members of the work of SCPEO and at how we can work to mutually support shared interests and concerns.

Shiftwork: A window for psychology
Z. WEDDERBURN, President of the British Psychological Society.

Shiftwork has been the main research theme in my career. It is an interesting example of applied psychology for many reasons. Its study is essentially interdisciplinary, as knowledge must be absorbed from, e.g. psychologists on body clocks, circuitry, and, and from ergonomists on workplace design, including the design of shift systems: a broad foundation in psychology itself is needed to understand much of this. Field studies of shiftwork are concerned with both efficiency and satisfaction, two longstanding strands in occupational psychology. Its outcome is influenced by the work schedules of shiftworkers, with individual counselling demonstrated to have a positive effect, and the issue of helpful booklets to have no effect. The window of opportunity for psychologists here is still wide open, as relatively little is routinely done to cater for the 10 to 20 per cent of the workforce that handles 24/7 operations.

Video game violence: Measuring aggressive behaviour as elicited by a competitive computer game
J. WILSON & R. BELL, Queen’s University Belfast.

Background: It is proposed that observing violent programs heightens aggressive tendencies. This poster specifically examines the impact of a violent computer game on young adults behavior. It is revealed that low parental care and high parental protection are linked with depression. Moreover, it is also indicated that poor family interaction is linked with poor psychological well-being. Coping strategies used and social supports perceived were also a crucial issue to mental health.

Aims: To examine the effects of playing either a violent or neutral video game on a person’s behavior. This is conducted by a human-irritable aggression paradigm. Aggression is defined in terms of the number of points deducted (detracts) and bursts of noise (masks) issued.

Method: 30 undergraduate volunteers were assigned to one of three viewing conditions (Aggressive, Neutral and Control) from their scores on the Buss-Perry Aggression questionnaire. Between groups design identified the effects of exposure to different between participants’ subsequent behaviour. Correlations identified relationships between self reported and actual measures of aggression.

Results: Those in the condition playing a computer game deducted significantly more points, hit more masks and achieved fewer points as anticipated. A positive relationship between self reported and number of dets and self report level of aggression.

Conclusions: Despite statistical significance, the emerging picture in the data was more complex. The reasons for this are discussed.

SYMPOSSIA

Revitalising personnel appraisal item generative tests
Convener: S. IRVINE, Inpyslc Ltd.

Since 1997, item generative tests have been in use in Northern Ireland and the US and Europe. Until the publication of a definitive source, (Irvin & Kyl, 2002), little was known about the development of item generative tests. This paper will examine the history of item generative tests, their potential role and how they can be used to enhance the development of new profiles and scales. This will be illustrated using the development of the Belfast Police Service Performance Evaluation System (BPSPES). The BPSPES is currently used for the appraisal of police officers in Northern Ireland and is a key component of the organization's performance management system. The BPSPES is a multi-faceted system that assesses officers across a range of domains, including line of duty performance, performance against职s, and personal development. The system is designed to promote fairness and consistency in the appraisal process, and to support officers in their professional development. The BPSPES is reviewed annually, and lessons learned from this review are incorporated into future iterations of the system. The potential of item generative tests is to provide a more flexible and adaptable appraisal system, that can be tailored to the specific needs of different organizations. This is particularly important in organizations such as the Police Service, where there are a wide range of roles and responsibilities. The BPSPES provides a good example of how item generative tests can be used to enhance the development of new profiles and scales in personnel appraisal.
The universal appeal of item-generative tests for large-scale screening
S. IRVINE, Inpsychn Ltd.
Background: Since 1997, a number of proving studies of item-generative tests have taken place. The work has been reported above in Northern Ireland, a major US Air Force trial, and, in 1999 and 2003, research on paper-and-pencil and computer-delivered versions with conscripts in German-speaking translated versions of the English language originals.
Aims: To collate the results of these studies for comparative purposes.
Main findings: This review shows in general, there are consistent content, concurrent, and construct validities. Reliabilities of individual tests range from 0.8 to 0.9; and that of a composite Capacity to Process Information variable is in excess of 0.96. Parallelism of different forms is constant, with very small effect sizes when mean form differences are compared within national studies.
Conclusions: The whys, whats, whens and hows of parallel form generation are outlined.
Rapid advancement training using item-generative computer-delivered tests
N. McCABE, P. KEERS, P. DALTON & S. IRVINE, BiG Systems Belfast, Century Management, Inpsychn Ltd.
Background: A completely computer-delivered suite of information-processing tests to screen the annual graduate entry to a well-established Rapid Advancement Programme (RAP) for information technology training of graduates was required.
Aims: To develop a test of this nature for all graduates special whilst also ensuring gender and sector were requirement.
Methods: The Millennium Tests devised by Inpsychn Ltd for Northern Ireland use were introduced in a first year pilot and a second year operational trial. Norms for initial and repeated testing were produced.
Results: Estimates of reliability and parallelism over forms for different annual intakes, and the prediction of training success in the second year of use are presented. In the third year of operation, interest and personality tests were administered to 50 volunteers to prepare guidelines for their placement in job-training contexts.
Conclusions: A summary of the findings shows stability of norms compared with the original standardisation group of 1500 participants and explainable scores differences. The Universal Appeal of Item-Generative Tests for Large-Scale Screening
Assembling the jigsaw of attitude toward Christianity: Further pieces
Convener: C.A. LEWIS.
Over the last 25 years 200 independent studies have been conducted concerned with the correlates of attitude towards Christianity. The synthesis of these findings is straightforward having used a common instrument, the Francis Scale of Attitude Toward Christianity. I envisaged the advantages to be gained by attempting to co-ordinate a series of otherwise independent studies which could agree on definition and measurement of the scale of religiosity without that of a jigsaw puzzle. Properly co-ordinated each individual study could build on what was already known and gradually extend the picture (Francis, 1991). The majority of the evidence can be presented as evidence of the Francis Scale of Attitude Toward Christianity, that provide additional pieces in the areas of mental health (Quigley et al., 2003), religion and values (Mullan & Lewis; Lewis & Francis) to the developing ‘attitude towards Christianity’ jigsaw.

The impact of personality and religion on attitude toward alcohol among 16 to 18-year-olds
M. FEARN, L.J. FRANCIS & C.A. LEWIS, University of Wales, Bangor & University of Ulster at Magee College.
Background: Previous research demonstrates a negative relationship between attitude toward alcohol and religiosity. However, what is less apparent is the relationship may, at least in part, be a function of individual differences in personality.
Aim: The aim of the present study was to explore the interrelations between personality, religiosity and attitude toward alcohol among a sample of 16 to 18-year-olds.
Method: A sample of 193 undergraduate students completed the Revised Abbreviated Eysenck Personality Questionnaire (Eysenck, Brown & Philpachalk, 1992), and the Francis Scale of Attitude toward Christianity (Francis & Stubbs, 1987) were administered alongside the Francis Scale of Attitude toward Alcohol (Francis, 1992) among a sample of 280 sixth-form students.
Results: The data demonstrate that a negative attitude toward alcohol was associated with lower psychoticism scores (tendermindedness) and a more positive attitude toward Christianity.
Conclusions: There continues to be a consensus on the importance of both Eysenck’s dimensional model of personality and personal religiosity in predicting differences in attitude toward alcohol use among a sample of 16 to 18-year-olds.

Religion and general health:
A study among undergraduate students
L.J. FRANCIS, M. ROBBINS, C.A. LEWIS, C. QUIGLEY & C. WHEELER, University of Wales, Bangor & University of Ulster at Magee College.
Background: O’Connor, Cobb and O’Connor (2003) have explored the Francis Scale of Attitude toward Christianity alongside the General Health Questionnaire among a student sample. They report that their data failed to find any significant relationship between religiosity and health. However there are two problems associated with the secure generalisation of this conclusion.
Aim: The aim of the present study is to replicate the work of O’Connor, Cobb and O’Connor (2003).
Method: A sample of 193 undergraduate students completed the Francis Scale of Attitude toward Christianity together with the thirty-item version of the General Health Questionnaire and measures of church attendance, personal prayer, and bible reading.
Results: The data demonstrate that a positive attitude toward Christianity is associated with a higher level of personal and general health. Church attendance, personal prayer, and bible reading convey no additional predictive power after attitude toward Christianity has been taken into account.
Conclusions: The present results are in contrast to O’Connor, Cobb and O’Connor (2003), and require further replication.

Conservatism and attitude towards Christianity among children
C.A. LEWIS & L.J. FRANCIS, University of Ulster at Magee College & University of Wales, Bangor & University of Ulster at Magee College.
Background: To further examine the relationship between religiosity and conservatism, Lewis and Malby (2000) successfully located the Francis Scale of Attitude toward Christianity within Wilson’s model of conservatism among a sample of UK adults.
Aim: The present aim was to replicate the work of Lewis and Malby (2000) among a sample of 200 children.
Method: 1000 children completed the Junior Forms of the Francis Scale of Attitude Toward Christianity and the Wilson-Patterson Attitude Inventory.
Results: For the total sample, scores on the Francis Scale were significantly associated with each of the subscale scores of the Wilson-Patterson Attitude Inventory.
Conclusions: These data provide further evidence of the close association between religiosity and conservatism and provide further evidence for the convergent validity of the Francis Scale of Attitude Toward Christianity Wilson’s model of conservatism.

Teenage beliefs and values in Northern Ireland: A cross-cultural comparison with England and Wales
M. MULLAN & C.A. LEWIS, University of Ulster at Magee College.
Background: Francis (2001) in his book Values Debate presents findings from a survey of 34,000 13-15-year-olds drawn from English and Welsh teenagers. The survey included questions on social, personal and moral issues. The impact of religion, social class, school and family background variables were explored with reference to the range of issues.
Aims: The aim of the study was twofold: first, to present findings related to current levels of values among teenagers in Northern Ireland; second, to provide a comparison with data of Francis (2001).
Method: 600 children aged between 14 and 15-years-old, from four Catholic schools and two Protestant schools in Northern Ireland completed a questionnaire booklet, containing self-report measures of beliefs, values, religion and personality, alongside some demographic questions.
Results: First, the data pertaining to values was analysed and the impact of religion, social class, school and family variables examined. Religion was found to be an important predictor of values. Second, comparisons were drawn with the data of Francis (2002). Differences between the two data sets were found, and these were related to themes of ‘moral law’ and ‘civic law’, with the Northern Irish children scoring significantly higher on ‘moral law’ and significantly lower on ‘civic law’ than the English adolescents.
Conclusions: The present data provides a ‘snap-shot’ of contemporary values among teenagers in Northern Ireland, and an insight into some factors that may influence individuals’ values.

Religion and mental health:
Confusions, concerns and comments
C.F. QUIGLEY, L.J. FRANCIS & C.A. LEWIS, University of Wales, Bangor & University of Ulster at Magee College.
Background: The relationship between religion and mental health has been the focus of much research, with the majority reporting salutary outcomes.
Aim: This review examines the mechanisms involved in the religion-mental health relationship and notes conceptual and methodological concerns.
Main Contribution: The majority of studies report a positive link between religion and mental health. Studies generally focus on examining this relationship in mature age groups living in the community or hospitalised with medical illness. The majority of these studies have reported zero or low-order correlations, which do not analyse the effects of various potentially confounding psychosocial variables. In addition, the over reliance on cross-sectional designs prohibit the supposition regarding the possible causes or consequences of religiosity. Consequently, few studies that control for confounders typically observe the association between religion and mental health drop substantially sometimes to non-significance. The present review points to confusion concerning the salutary effects of religion on mental health.
Conclusions: Future research should note these confounders and should try to avoid research without these conceptual and methodological limitations.
The mental health and well-being of young people in the Republic of Ireland

Convenor: S. McGILLOWAY, National University of Ireland at Maynooth.

Recent years have seen a surge of interest among policy-makers, researchers and practitioners – throughout the UK and elsewhere – in the growing number of young people aged under 25 who are developing mental health problems. Added to this are increasing national concerns about suicide rates and the alarmingly high levels of alcohol consumption among young people, both of which have been the subject of recent media attention. To date, relatively little research has been undertaken to examine the prevalence, nature and experience of mental ill health in young Irish people. This symposium aims to throw light on these issues by drawing on quantitative and qualitative research conducted with 145 young people (< 25) living in the Greater Dublin and surrounding areas. These studies examine: the prevalence of minor psychiatric morbidity among consecutive GP attenders (N = 80); rates of harmful alcohol consumption in female university students (N = 30); the experience of eating disorders among females (N = 4); and the quality of life and psychological well-being of young people with and without chronic illness (N = 31).

The experience of eating disorders among young females: A qualitative study

L. BRENNAN & S. McGILLOWAY, National University of Ireland at Maynooth.

Background: There is relatively little subject to content analysis to identify key themes including pathways to care and service utilisation.

Results: Participants were unable to identify any specific factors which had led to their illness and one person had no contact with psychiatric services. Key themes included feelings of guilt, isolation and, in one case, suicidal ideation. Conclusions: Further qualitative research in this area is required to explore in more detail the unique experiences of these vulnerable groups of young people, to determine the most appropriate and effective service response.

Mental health problems among 16 to 25-year-olds attending their General Practitioners

K. KEOGH & S. McGILLOWAY, National University of Ireland at Maynooth.

Background: There are growing concerns about the increasing prevalence of psychiatric disorders among young people. However, these phenomena may go unrecognised/untreated but often, the first port of call for young people in distress is their GP. Aims: This qualitative study explores the experiences of four females (three aged 18–25; one aged 30) recovering from anorexia nervosa. Methods: One-to-one in-depth interviews were conducted using an adapted version of a Mental Health Foundation questionnaire. Interviews were recorded, transcribed and subjected to content analysis to identify key themes including pathways to care and service utilisation.

Results: Preliminary analysis indicated no statistically significant differences (p < 0.05) in overall QoL between the groups, although males in the comparison group reported better physical functioning. There were no statistically significant differences (p < 0.05) between the groups with respect to emotional problems. Conclusions: This suggests that having a chronic illness such as asthma need not affect overall QoL, nor does it have any bearing on the mental health of sufferers. These results, though based on a small sample, appear promising for the growing number of Irish children diagnosed with asthma (and their parents).

Hazardous drinking behaviour in young Irish females

C. TOLAND & S. McGILLOWAY, National University of Ireland at Maynooth.

Background: During the last decade, alcohol consumption per capita in Ireland has increased by 41 per cent and Ireland has moved from twelfth to second place in the world rankings. Recent media reports indicate that young Irish people and, in particular, females, are at risk of harmful alcohol consumption. Aims: The aim of this study was to assess the prevalence of hazardous drinking behaviour among a purposive sample of female students aged 18 to 25 (N = 30) attending NUI Maynooth. Method: Participants completed a brief Profile of Alcohol Dependence Form and a Health and Addiction Inventory (Saunders et al., 1993) which screens for hazardous alcohol consumption. Results: 51 per cent (17/30) were identified as AUDIT ‘cases’ (indicating hazardous drinking behaviour), 71 per cent of whom had also used drugs concerned with their cases. Most respondents (83 per cent) reported drinking spirits in preference to beer and described themselves as ‘average’ drinkers. Conclusions: Further qualitative research in this area is required to explore in more detail the unique experiences of these vulnerable groups of young people, to determine the most appropriate and effective service response.

Teaching and learning in psychology: Issues for higher education

Convenor: C. McGUINNESS, Queen’s University Belfast.

The past 10 to 15 years has seen a enormous expansion in higher education with calls for widening access, quality enhancement in teaching and learning, and a renewed emphasis on educating students for employability. Several national initiatives have been created to support teaching learning and the Learning and Teaching Support Networks (LTSNs) have a specific disciplinary focus. This symposium draws together four papers to create an opportunity to discuss these issues in the context of teaching and learning. The first paper by McGuinness and Gibbons raises the issue of peer observation of teaching as a quality assurance tool, the second paper by Muldoon and Curran describes a survey of current practices in UK psychology departments. The second paper by Muldoon and Curran describes some research on supporting disabled students learning in the School of Psychology at QUB. Stringer’s paper shows how employability skills are enhanced in the psychology degree programme at UUC. The last paper from Tweedie presents an overview of the work of LTSN Psychology and how it is creating a research focus for teaching and learning in psychology.

Peer observation and peer review of teaching: Survey of practices in UK psychology departments

C. McGUINNESS & C. GIBBONS, Queen’s University Belfast.

Background: The use of peer observation of teaching (POT) has become increasing prevalent in higher education as a means for enhancing teaching. Aims: To report on current peer observation and peer review practices in UK psychology departments, to describe their scope and scale, with a view to identifying good practice for dissemination.

Method: Departments were electronically surveyed using the LTSN list of 122 department contacts. Sixteen questions related to observation and review practices were posed. Responses were received from 45 departments, equally from pre-1992 and post-1992 universities. Results: Indicate widespread variation (61 per cent of departments) with a big increase around the time of Psychology Subject Review (1998 for EN). Observations in lecturing are the most frequent type of peer review (100 per cent reported), but other types are also frequently described. It is mainly for developmental purposes. Thirteen pairs chose to pair review partners within their own departments.

Conclusions: Implications are drawn about POT as a means for teaching and learning. The attitudes expressed in the survey about its usefulness. Distinctions are made between peer observation of teaching and the more general practices of peer review.

Managing disability in higher education

O. MULDOON & W. CURRAN, Queen’s University Belfast.

Background: Policy commitment to widening access has seen a rise in the number of disabled students enrolled in full-time higher education. This paper reports on an initiative to support students, registered as disabled, to meet the challenges that they face attempting to support teaching and learning in the context of disability.

Aims: To examine academic performance of disabled students together with matters that have concerned staff attempting to support their learning.

Method: First, a comparison of the academic performance of these students with those within their own department who are not registered as being disabled was undertaken. Second, a report of two focus groups undertaken with academic, academic-related and support staff is presented. Results: A comparison between the academic performance of disabled and non-disabled students is presented. The issues highlighted the issues that staff have encountered in attempting to support teaching and learning in the context of disability.

Conclusion: A range of challenges face those committed to widening access to higher education.

Improving interview and career skills in psychology undergraduates: A practical approach

M. STRINGER, University of Ulster, Coleraine.

Background: This paper outlines a practical programme that aims to improve student’s confidence in their ability to prepare for and successfully manage job selection interviews.
The programme encourages students to examine the content of their psychology degree programme; to use the University careers advice service; to practice putting together CVs and covering letters and to examine their own performance at a mock selection interview.

Aims: The paper outlines a practical programme aimed at improving student self-confidence and ability to apply for and undertake job selection interviews. This involves rating their own performance using videotapes and comparing self-ratings with those of more experienced panel members.

Results: The results reveal that students value the exercise as a means of both building their self-confidence to prepare for a job selection interviews. The results also highlight significant differences between self-ratings and panel ratings of interview performance.

Conclusions: The programme can be adopted to run on any Psychology degree programme and offers students practical insights into the skills required to successfully manage a job selection interview. This involves rating their own performance using videotapes and comparing self-ratings with those of more experienced panel members.

Establishing a community-wide approach to research in the teaching of psychology S. TWEEDIE, LTSN Psychology, University of Strathclyde.

Background: This paper will outline the main features brought by implications of psychology programme supports and disseminates research into the teaching of psychology in Higher Education.

Aims: The subject centre aims to fund, support aims of the programme and encourage the development of psychology specific learning and teaching projects and initiatives.

Aspects of identity
Convenor: NIBPS COMMITTEE.

Given that this year's annual conference is being held in conjunction with the Welsh and Scottish branches, a symposium focusing on aspects of national/regional identity seemed appropriate.

Four invited papers form the basis of mini-projects and specialist networks in order to establish good practice in the teaching of psychology.

Main Contribution: LTSN Psychology directly funds pedagogical and methodological research through a rolling series of mini-projects and specialist networks and through commissioned studies and reports. It is also instrumental in coordinating and disseminating the current FDTL4 psychology projects. Individual practitioners and departments are encouraged to share their research through national workshops, the website and Psychology Learning and Teaching (PLAT) Journals and Conferences.

Conclusions: It is hoped that this overview will provide an opportunity to explore further possibilities for the development of psychology specific learning and teaching projects and initiatives.

National and ethnic identity among ethnic minority young people in Scotland
C. CASSIDY, R. O'CONNOR, C. HOWE & D. WARDEN, University of St Andrews & University of Dundee.

Background: This study draws on Berry's (1990) model of acculturation and more recent work suggesting group differences in how national and ethnic identity interrelate.

Aim: The present study sought to examine the interrelationship of national and ethnic identity and its implications for psychological well-being among ethnic minority young people in Scotland.

Methods: Our sample (N = 121) comprised three ethnic groups: Chinese, Indian and Pakistani.

Results: A number of questionnaire-based measures at two points in time, separated by a year. Correlational analysis examining the relationship of ethnic and national identity suggested differing patterns for the three ethnic groups. Acculturation strategy was determined by the perceived importance (high or low) of ethnic and national identity.

Conclusions: The relationship between acculturation strategy and psychological well-being varied across the three groups.

Border, place and identity
N. HOPKINS, S. REICHER & K. HARRISON, Dundee University & St Andrews University.

Background: At first sight the England-Scotland border may seem rather irrelevant to young people living in towns. It has little by way of a physical presence: the most that south-bound motorists may see are signs saying ‘Welcome to England'. Are all of their leisure-time destinations is a nearby English town these young people cross the border quite regularly in the course of their everyday life.

Aims: To explore the psychological significance of the border for young people.

Methods: Interviews with young Scots (senior secondary school pupils) living in small community close to the border with England were undertaken. Our participants deliberated upon such issues as where they would like to study or take up long-term employment. In this paper we discuss themes arising from interviews.

Results: In the course of the interviews, our participants expressed a feeling of ‘at home’ and elaborated quite complex accounts of what made a particular place ‘home’ and other places ‘not home’. We also examined what these interviewees routinely invoked issues relating to national identity and we will explore their deliberations in regard to the process of moving to a range of places within the UK.

Conclusions: Exploration of the arguments about the possibilities of moving to equidistant Scottish and English locations include reference to the degree to which they feel they could ‘fit’ into these places, the degree to which they would be acceptable, the expectation of living there, the degree to which interviewees feel their identities would undergo change in different places, and the perceived reaction of friends and family.

A review of recent work on the Northern Irish identity
I. SCHERMBRUCKER & K. TREW, Queen's University Belfast.

Background: Considers recent work on the development of the Northern Irish identity, particularly from a Social Identity Theory perspective.

Aims: To consider the nature of those individuals professing the Northern Irish identity as their primary social identity; to consider how the Northern Irish identity fits into the wider pattern of identities in Northern Ireland, to assess its viability as a common identity for both unionists and nationalists; and to consider possible future influences on the Northern Irish identity, given the current political environment.

Main Contribution: Examines findings from recent questionnaire studies. The main finding is that the Northern Irish identity, in its currently most widely recognised form, does not appear to represent a viable identity for drawing together those from nationalist and unionist perspectives.

Conclusions: It may be that engaging peace process begins, once more, to make headway, and especially if, in conjunction with this, there is more civic and institutional support for the notion of a Northern Irish identity, this identity may become a viable common identity for all people in Northern Ireland, in the future.

Does integrated education change children's group identity?
M. STRINGER, P. IRWINING, M. GILES, R. WILSON & C. McCLENANAH, University of Ulster, Coleraine.

Background: This paper presents a range of models based on a large cross-sectional study of Northern Irish schools which suggest that integrated education has a modifying effect on children's political attitudes.

Aims: The paper outlines briefly a number of models that illustrate the way in which parents and schools influence children's attitudes. The role of in school and out of school contacts in changing attitudes is highlighted along with the absence of education due to the intergroup hostility between the three groups.

Method: A quantitative questionnaire study of carefully matched Northern Irish schools and their parents, all attending the Integrated Primary Education Project in the study schools. Data was collected on children's and parental attitudes and contacts with members of the other group in both integrated and segregated schools.

Results: The results reveal that secondary school children's political attitudes appear to be moderated by contact with other group members both in school and outside school.

Conclusions: The paper concludes by highlighting a number of measurement issues in this area along with suggestions for further research.

WORKSHOP
Publishing your research
Convenor: NIBPS COMMITTEE.

Chair/Discussant: D. HANNA.

Panel: PROFESSOR K. BROWN (former editor IJP), DR. S. REICHER (current editor BJSP), DR. M. DEMPSTER (QUB) & DR. O. MULDON (QUB).

This workshop aimed at postgraduate students and those at an early stages of their research careers aims to provide useful guidance on the publication process. The session will involve brief panel presentations from contributors and session participants will then be encouraged to engage in a question and answer/discussion session. The panel contribution will be informed by two senior academics who have been or are currently Journal Editors. Their contribution will highlight the contribution of journal editors regarding manuscripts, common problems resulting in rejection of manuscripts and other issues related to the publication process. Further contributions will include guidance on how to maximise the impact of your research and how the research exercise has impacted on the publication process (Martin Dempster). Finally, issues that arise as a result of the reviewing process will be outlined. Using sample reviews, Orla Muldoon will outline some of the issues that can arise for researchers as a result of the peer review process.

The British Psychological Society
2004 Proceedings
Sex and sexuality in the land of Oz

M. PITTS, Australian Research Centre in Sex, Health and Society, Melbourne, Australia.

We have never been in a better position to understand sex, sexual health and sexuality from a strong evidence base. In Australia, we have recently completed the first national survey of sex, sexual health and sexuality. We will present data from this survey and address specific changes in sexual cultures in 16 to 18-year-olds. Data from associated studies allow us to understand how these sexual cultures include the relational expectations of certain individuals. We will place this ‘local’ research into an international context via an examination of the outcomes of a recent review we conducted. This was commissioned by the WHO, and had the aim of identifying gaps in the research literature to enable the development of a new global agenda in this area. We will offer three challenges to health psychologists working in these areas: The first is a methodological challenge; we need to acknowledge and value the range of data that constitute appropriate evidence in the sex and sexuality field. The second is an epistemological challenge that questions the privileging of certain constructs, e.g. gender in an un-problematic way and that views and measures sex as an individual experience. The third challenge is the need to get closer to the experience of sex, sexual health and sexuality from a strong evidence base. In Australia, we have recently completed the first national survey of sex, sexual health and sexuality and I will present data from this survey and address specific changes in sexual cultures here. I will also draw on data from three national surveys of secondary school students carried out at different times to illustrate the significant changes in sexual cultures in 16 to 18-year-olds. Data from associated studies allow us to understand how these sexual cultures include the relational expectations of certain individuals.

Stress, wound healing and recovery

J. WEINMAN, Unit of Psychology, GKT School of Medicine (Guy’s Campus), University of London.

There has been considerable research in health psychology on the effects of pre- and peri-operative stress on surgical recovery but there is little research on the experiences of stress in life stresses. This talk will describe a number of studies beginning with a clinical study examining the relationship between stress and the recovery of patients undergoing keyhole surgery. The presentation focuses on the results from a study to develop a patient held record (CAMPAS-R), which can be used for prospective data collection in the community by incorporating it into the clinical monitoring of physical and psychological function. The instrument has good psychometric properties and alleviates problems (a) and (b) above by making data collection less threatening, and by providing health professionals a stake in research.

Can proxies provide valid information on the experiences of people at the end of life?

J.M. ADDINGTON-HALL, Dept. of Palliative Care and Policy, King’s College London & C. McPHERSON, University of Ottawa.

Background: After-death or retrospective interviews with bereaved respondents are an important tool in the repertoire of researchers evaluating the quality of end-of-life care or investigating the experiences of people at the end of life. Despite the importance of this approach, the validity of the information gathered has received little attention.

Methods: Systematic review, using established search strategies, of literature that assesses the validity of proxies (family or friends, but not health professionals) acting for patients at the end of life.

Findings: The findings suggest that proxies can reliably report on the quality of services, and on observable symptoms. Agreement is poorest for subjective aspects of the patient’s experience, such as pain, anxiety and depression.

Discussion: These are important problems targeted in palliative care, and research is therefore needed to investigate ways of improving agreement between patients and proxies. This needs to be informed by survey methodology and cognitive psychology, and to address factors likely to affect levels of agreement, including factors associated with the patient and proxy (for example, mood, cognitive impairment, type and quality of relationship), the methods used to assess agreement and the design of the research evaluating the validity of proxies’ reports (including time from death).

Proxy accounts will continue to have an important role in research at the end of life, and ways need to be found to improve the validity of these accounts.

‘Let me explain’: Narrative employment and one patient’s experience of oral cancer

M. CROSSTY, University of Manchester.

Recent research has investigated the ways in which serious illness potentially poses a threat to persons’ sense of ontological security by throwing into doubt assumptions about time and the future. One of the main ways in which people adjust to such threats is through narrative identities (either consciously or unconsciously) which help them to make sense of illness. Of particular relevance of people learning to live with a cancer diagnosis, is the concept of ‘therapeutic employment’ developed by Del Vecchio Good et al. (1994). This concept refers to the way in which oncologists are taught to structure and temporal horizons for their patients in a particular way in order to instill and maintain hope in the context of arduous and toxic treatments. Using a case-study of one man’s process of adapting to oral cancer (John Diamond’s posthumously published serialised diary entries in The Times), this talk investigates the way in which such ‘therapeutic employment’ is implicitly incorporated by the patient, providing an underlying plot structure to his story. Following Diamond’s diary entries over the four year duration of his illness, this paper analytically divides them into six main...
stages, documenting the underlying temporal structure and themes accompanying each stage of treatment. This paper illustrates the way in which ‘therapeutic emplotment’ encourages the patient to focus on the immediate present and to place faith in the efficacy of specific treatments. However, how the attempt to live in the context of such a plot fraught with anxiety for the patient, and how it co-exists with other larger narratives of uncertainty, fear and scepticism in relation to the power of medicine. The main aim of the paper is to document, for the first time, the process of ‘therapeutic emplotment’ from the oral cancer patient’s point of view.

Expectations of ethnography in health psychology research near the end of life: is it too in-depth or much too invasive?

S. PAYNE, University of Sheffield, S. HAWKER & C KERR, University of Southampton.

Background: Ethnography is an approach to contextual analysis that has been relatively little used within health psychology. The purpose of this paper is to introduce health psychologists to some of the advantages and disadvantages of ethnography as a method of accessing and organising data when researching people who provide and use end of life care. It draws specifically on a recent study exploring the role of community hospitals in providing end of life care for older people.

Methods: Building on a survey of all UK community hospitals (N = 478) and semi-structured interviews with 30 hospital managers, six in-depth organisational case studies are being undertaken. Overt non-participant observation of care, a questionnaire for health professionals plus semi-structured interviews with palliative patients and their carers are providing detailed, rich and varied ethnographic data.

Findings: Spending time in the field has enabled us to building trusting relationships with hospital staff and patients, and has encouraged us to explain procedures and how practice has developed. Problems have been encountered with ambiguous definitions of palliative care and their carers are providing detailed, rich and varied ethnographic data.

Applying health psychology in professional practice: Combining knowledge, skills and competencies in the workplace

Convener & Chair: C.N. HALLAS, Royal Brompton and Harefield NHS Trust.

Discussant: Panel comprised of contributors.

Aim: This two-hour workshop is designed to discuss professional issues that are relevant and timely to the training, supervision and practice of health psychologists working within applied healthcare settings. Workshop participants will be able to discuss the translation of the core competencies of the Stage 2 qualification directly into applied professional health practice through five 15-minute presentations. Two presentations will directly address professional issues relating to the implementation of theoretical knowledge into healthcare interventions, research and consultancy (Owen et al., & Sykes).

A further presentation (Keen) will address the professional debate surrounding the competencies of health psychologists to work directly with individuals receiving treatment or care for medical conditions within the NHS setting. Two additional presentations will address professional issues relating to the supervision and practice of trainee health psychologists and their impact within healthcare settings. A Stage 2 trainee’s presentation discusses the issues relating to completing the competencies within healthcare practice, the supervision of practice and the professional issues relating to such roles).

Structure: Following the presentations, a brief summary of the presentation will be presented for discussion with the audience and an overview of the workshop issues to be discussed (Hallas). Thirty minutes will be set aside for audience questions and to work towards the workshop objectives. The first objective is to present clear evidence for the application of health psychology research into professional evidence-based healthcare practice. Secondly it is hoped that this workshop will facilitate discussion and a consensus regarding guidelines to aid some of the professional issues that are manifesting as a result of the development of health psychology. It is hoped that such a consensus can be communicated to the Division of Health Psychology Continuing Professional Development (CPD)Committee to assist in DHP CPD policy.

The role of health psychology in understanding barriers to recruitment in cancer clinical trials: Doctors’ and patients’ perceptions of suitability for trials


Background: The role of research and development is increasingly acknowledged within the government agenda for clinical services. The NHS National Cancer Plan (DoH, 2000) proposes that people with cancer should routinely be offered the opportunity to take part in treatment trials. The National Cancer Research Network sets targets for trials involvement as conditions for continued accreditation of the Network. Many Cancer Networks do not yet meet these targets. Research output to date has focussed mainly upon patients’ decision-making whether or not to participate. However, offering trial participation, and agreeing (or not) to do so are issues of the behaviour of healthcare staff and service users. Many patients who are likely to meet physical inclusion criteria are not approached and offered involvement by their doctors; at present, there is no evidence-base regarding this process. This could be seen as a fruitful area for increasing recruitment rates, but care must be taken that this does not compromise the well-being of service-users. Health psychology research could potentially help clarify important issues in this area and the objective of this paper is to present the process by which a study was designed using health psychology theory to aid greater understanding of the clinical trial recruitment process.

Methods: To help Cancer Networks work towards the national agenda, it was decided to undertake a mixed-methodology study to identify: the factors which experienced clinical trials recruiters (who are often volunteers) determine that for whom an offer of trial participation would be inappropriate how far these factors reflect the concerns of potential research participants. This presentation outlines the findings from the first qualitative phase of the study. This is a collaborative project between health psychologists’ theoretical and research skills are applied to address targets within the NHS.

Sharing an experience of implementing health psychology theory into practice: The Coronary Heart Disease Partnership

C.M. SYKES, King’s College Hospital, London.

Background: The Coronary Heart Disease (CHD) Partnership is a project that is designed to improve the patient’s experience of revascularisation at two of the largest CHD surgery centres in London. A chartered health psychologist with a background in research health psychology and project management co-ordinated the project which draws upon several theories including action research and narrative analysis. The approach to the project is intended to be participatory at all levels. After changing revascularisation services are tested on a small scale, then introduced on a larger scale. Patients and carers are invited to share their stories with professionals and stakeholders and are invited to attend seminars. The seminar themes can be tailored to the audience’s needs.

Health psychologists working directly with patients: The development of relevant knowledge and skills

A. KEEN, Royal Aberdeen Children’s Hospital, Aberdeen.

Many health psychologists and health psychologist trainees would like to work directly with patients. There are an increasing number of posts advertised in the British Psychological Society’s ‘Appointment Memorandum’ that include working directly with medical patients as part of a multi-faceted role. These vacancies, that are typically described as clinical health psychologists posts, would appear to be suitable to applicants with health psychology training. However, there is informal evidence that potential employers have expressed concern that health psychologists and health psychologist trainees lack the required relevant knowledge and skills to be able to carry out the role effectively. The aim of this paper is to review these facts, the way in which relevant knowledge and skills develop is an important issue. It is also a crucial matter for the Division of Health Psychology as trainees are looking towards providing psychological treatments directly to medical patients as one of those competencies that they wish to develop during training. It is clearly in everybody’s interests that supervisors use those training methods that are empirically proven to help development of appropriate knowledge and skills, during this important period of professional development.

Working towards the current qualification in health psychology (Stage 2): The experience of a trainee health psychologist in the NHS

S. PULLEN, Health Psychology Dept., Gloucestershire Royal Hospital.

Background: This paper attempts to outline my personal experience and future plans in relation to the current qualification in health psychology (Stage 2) within the NHS. As a result of completing both under-graduate and post-graduate placements within the Health Psychology Department at Gloucestershire Royal Hospital, I was offered the position of Trainee Health Psychologist. I have gained experience of working within the cardiac rehabilitation service, from providing the psychological component of the programme to completing the annual report for the service. I have also been provided with the opportunity of completing the empirical study for the stage two
quality within the Cardiac Rehabilitation service (Gender and cardiac rehabilitation, do women receive repeat treatments (treatment and care)? I have gained further experience of working within the applied research unit of the department. This involves the completion of research and national audit and research within the context of the work setting to improve the health outcomes for patients, their families and the activities undertaken within the research unit I have been able to complete a systematic review (psychology involvement within a community health setting). The paper presented in this paper has been developed in the framework of work have provided opportunities for research in experience and consultancy. The supervision I receive comes from a 1 hour face-to-face meetings with a chartered health psychologist. 

### Supervising health psychology in the National Health Service

J. BATH, Gloucestershire Royal Hospital.

How often should psychologists attend supervision? Should clinical psychologists supervise health psychologists in the NHS? Is it appropriate for a Health Psychologist to supervise a Clinical Psychologist? How are Chartered Health Psychologists going to go about supervising Stage 2 Health Psychology trainees? A framework of this is presented in this paper. I hope to argue that all of the above questions matter and that they all need to be addressed. Although the answers to these questions may vary depending on the setting, supervisor or the supervisee, or perspective, it is essential that supervision is: (a) needs led; and (b) placed within a framework of Clinical Governance (and more specifically Continuing Professional Development). The emphasis on learning has been adopted by the Division of Clinical Psychology. The need for Supervision in the Practise of Clinical Psychology has been borne out of the interests of the local Primary Care Trust and the Health Psychology Department. The applied research projects undertaken within the health psychology department have provided opportunities for research in experience and consultancy. The supervision I receive comes from a 1 hour face-to-face meetings with a chartered health psychologist.

### Critical health psychology

**Convener, Chair & Discussant: M.L. CROSSLEY, University of Manchester.**

**Aims:** The aim of this workshop is to provoke discussion about what constitutes a 'critical health psychology' and why such an approach is important within the context of contemporary health psychology. Participants have been asked to provide an empirical example from their own research and consider whether they would consider it to be a 'critical' approach to health psychology. Why did they adopt such a perspective? In what ways did it differ from the 'mainstream' approaches (theoretically, methodologically, both?). Why did they consider such an approach important? What were the pitfalls of adopting such an approach? The workshop participants have purposely been selected from different substantive research areas (mental health, alcohol use, HIV/AIDS) in order to consider the theoretical question of what constitutes critical health psychology.

**Rationale:** Critical health psychology as an increasingly influential emerging perspective within both national and international health psychology. The BPS Conference Scientific Committee have recognised this in inviting me to submit an abstract around the theme of critical health psychology.

**Summary:** The four papers in this workshop all approach the issue of 'critical health psychology' from a different perspective. The papers by Clarke and Joffe use various qualitative approaches to address the way in which peoples orientations towards health risks and health behaviour are constructed rather than being simple reflections of inward dispositions or attitudes. They address the issue of why this is important to critical health psychology and how it might have implications for thinking about different kinds of interventions. The papers by Pilgrim and Fryer build upon these questions in relation to the biopsychosocial model of mental health. To what extent should critical health psychology even be focussing on individual talk and interaction? Doesn’t it need to go much further in thinking about the interplay of health and social reality is constituted? What is the connection between the individual and the social level? How are Chartered Health Psychologists going to address these questions? What are the potential potentials and what health psychology should be doing to try and improve health?

### Health psychology: A critical community psychology perspective

D. FRYER, University of Stirling.

From a community psychological perspective, most distress and ill health is socially caused. Moreover the scale of socially caused mental and physical ill health is so great that, even if individual level intra-psychic interventions were effective and we also put aside qualms about their efficacy, the scale of the problem is so vast that it would simply not be feasible to intervene to treat people one at a time. Social psychologists, therefore, needed. However, rather than be part of the intervention-and-prevention-solution, much psychological research and practice is part of the problem. These claims will be elaborated and supported through discussion of research into the relationship between unemployment and mental health. Much of this research is problematic in process, ideology and political outcome. An alternative, critical community, approach to unemployment and mental health involves investigating which stakeholder groups psychologists are empowering at a variety of levels of engagement; the challenges which negatively impact upon public health and actively collaborating with the least powerful and healthy members of our communities to promote their empowerment and health. The alternative will be elaborated, illustrated with examples and recommended as a possible model for critical health psychology.

### The Biopsychosocial model in Anglo-American psychiatry: Past, present and future?

D. PILGRIM, Lancashire NHS Trust and University of Liverpool.

The biopsychosocial model is appraised and its presence in the discourse of modern psychiatry compared and contrasted with an enduring biomedical model. The biopsychosocial model represented a popular compromise for many years between a biomedical approach and ‘anti psychiatry’. This paper considers the history and uncertain future of the biopsychosocial model and concludes that it is one amongst many forms of opposition to a bioreductionist approach to human distress and difference.

### Using a critical health psychology approach to understanding alcohol use

D. CLARKE, University of Southampton.

This paper will present a critical approach to health psychology using findings derived from a recent qualitative study on the use of alcohol amongst young people aged 18 to 30. Previous research in this area has tended to focus on the practice of individual drinking which has largely been of a traditional, positivistic nature. The study presented in this paper, however, will seek to challenge this by illustrating the way in which qualitative approaches to address the way in which peoples orientations towards health risks and health behaviour are constructed rather than being simple reflections of inward dispositions or attitudes. They address the issue of why this is important to critical health psychology and how it might have implications for thinking about different kinds of interventions. The papers by Pilgrim and Fryer build upon these questions in relation to the biopsychosocial model of mental health. To what extent should critical health psychology even be focussing on individual talk and interaction? Doesn’t it need to go much further in thinking about the interplay of health and social reality is constituted? What is the connection between the individual and the social level? How are Chartered Health Psychologists going to address these questions? What are the potential potentials and what health psychology should be doing to try and improve health?
new challenge to the adequacy of the theoretical models that health psychologists bring to the field of health behavior. Despite having evidence about best practice, this evidence is not implemented effectively, with the result that best health outcomes are not achieved. Other disciplines have been successful in changing professional practice. They were not based on psychological theory. Without an appropriate theoretical base, the development of interventions can be limited. The first paper will emphasise the need to revitalise and re-invigorate the scientific base of psychological theory and enhance the use of psychological constructs within this multidisciplinary field. The following three papers will focus on different groups of models, commonly used by psychologists: those which address motivation in people who have not yet established an intention to engage in a particular behavior; action models in those who have an intention to change their behavior but not the motivation to do so; and those that provide organisational models where more institutional level changes are required. The final paper will describe a process, funded by the BPS, in which 17 psychological scientists were invited to draw on, and integrate, constructs from all three types of model. Implications for multidisciplinary work will be discussed.

Implementation research in evidence-based practice: The need for psychological theory

M. JOHNSTON, Dept. of Psychology, University of St. Andrews, Scotland.

Background: Research on health care practice has identified practices which result in improved outcomes. However, these evidence based practices (EBPs), are not necessarily implemented. Therefore, methods of implementing EBPs have been studied.

Methods: Methods used have been mainly intuitive or empirical and include printed materials, audit and feedback, reminders and educational outreach. Over 250 intervention studies have been conducted.

Findings: While some have seen some success in improved outcomes, there is no clear pattern of results favouring a particular method.

Discussion: Continuing to conduct further studies is unlikely to prove successful unless an integrative framework can be developed. Implementation researchers are looking to behaviour change scientists to develop such a framework. Psychological theories provide a starting point, but are limited in usefulness since they are atheoretical and have too much overlap in constructs. Clarification and simplification are necessary to maximise the usefulness of psychological theoretical frameworks.

Applying theory to changing motivation

C. ABRAHAM, Dept. of Psychology, University of Sussex.

Background: While new guidelines for health care practice are introduced, practitioners do not have established motivation to follow them. Interventions designed to generate such motivation use a variety of techniques with varying success. Explicit recommendations highlighting target cognitions and approaches to enhancing motivation can enhance intervention effectiveness.

Methods: Psychological assumptions implicit in interventions designed to motivate evidence-based practice are highlighted. A theory-based model of key psychological components of motivation is presented.

Findings: Interventions are prerequisite to understanding guidelines and evaluating arguments underpinning their use. Knowledge is not sufficient to generate motivation. Behavioral intention has been used as an index of motivation in social cognition models applied in health settings (e.g. the theory of planned behavior) and a theoretical understanding of the antecedents to consistent behavior is well established. Perceived control and actual control, in terms of resources, including time, are prerequisite to intentions to implement EBP guidelines. Review of recent research on intention stability and the relationship between intentions and the nature of motivation (e.g. intrinsic versus extrinsic) suggest that interventions could adopt a more comprehensive approach to motivation enhancement.

Discussion: The implications for interventions designed to promote motivation are discussed in relation to a hierarchy of cognitive targets prerequisite to EBP motivation.

Addressing the intention-behavior gap in evidence-based health care practice: A case for ‘action theories’

A.E. WALKER, Health Services Research Unit, University of Aberdeen.

M. JOHNSTON, D BONETTI, University of St. Andrews.

J. M. GRIMSHAW, University of Ottawa.

M. P. ECCLES, I. N. STEEN, University of York.

N. PITTS, University of Dundee.

E. SHIRRAN, University of Aberdeen.

Background: Trials of interventions to implement evidence based health care practice have demonstrated that implementation failure and subsequent limited practical outcomes are not necessarily associated with evidence based guidelines. Knowledge is prerequisite to EBP motivation. However, evidence suggests that the compliance of health care professionals with protocols and guidelines is often high. Explanatory studies have found that reasons why compliance rates are low.

Discussion: The implementation of EBP through protocols and ICs requires careful management if compliance levels are to be improved. At the moment they are seen as forces to impose or take away exercise, and/or an unnecessary administrative burden. The workshop will make the link between the atheoretical nature of studies of the implementation of EBP and the limited practical output generated by them. There are over 250 studies of interventions to change professional practice. They were not based on psychological theory. Without an appropriate theoretical base, the development of interventions can be limited. The first paper will emphasise the need to revitalise and re-invigorate the scientific base of psychological theory and enhance the use of psychological constructs within this multidisciplinary field. The following three papers will focus on different groups of models, commonly used by psychologists: those which address motivation in people who have not yet established an intention to engage in a particular behaviour; action models in those who have an intention to change their behavior but not the motivation to do so; and those that provide organisational models where more institutional level changes are required. The final paper will describe a process, funded by the BPS, in which 17 psychological scientists were invited to draw on, and integrate, constructs from all three types of model. Implications for multidisciplinary work will be discussed.

Implementing a theoretical framework for evidence-based practice

S. MICHITE, on behalf of the EBP seminar group; Dept. of Psychology, University College London.

Background: To increase the implementation of evidence based health care, a theoretical framework is required to understand and change health professional behaviours. To maximise the impact of psychological science in interdisciplinary work, it should be coherent and consensual.

Methods: A small grant was awarded by the BPS to support a three workshop series, where psychologists, reflecting a variety of theoretical and occupational backgrounds, were invited. The task was to develop a theoretical framework for use in interdisciplinary research and practice. Theories and constructs were generated in four overlapping areas: motivation, action, organisation and behaviour change. From the resulting 33 theories and 128 constructs, participants were each asked to prioritise three constructs for use in interdisciplinary research and three for use in changing professional behaviour. Two groups independently assigned these to seven (plus minus two) construct domains.

Findings: The construct domains used by the first group were: nature of behaviour, context of behaviour, intentions, self-efficacy, action planning, consequences and knowledge. The second group produced: beliefs, context of good or bad will happen as a consequence of the behaviour, believe in one’s own capability, social and physical environment, goals, habit/routine, task/performance and stress and emotion. The integration of these domains is the final step. The two areas identified as requiring further thought were organisational and environmental factors, and goal and intention planning.

Discussion: The framework will be presented for discussion and its use in future research and practice will be discussed.
Implementation intentions to increase adherence to medical advice: Some methodological and theoretical considerations

Convener & Chair: L. QUINE, University of Kent at Canterbury.

Discussant: L. STEADMAN, University of Kent at Canterbury.

Aims: The purpose of this invited Symposium is to draw together some recent studies that investigate the usefulness of Implementation Intentions (II) interventions in increasing adherence to medical advice and to discuss some methodological and theoretical questions that arise when carrying out the studies.

Rationale: The construct of Implementation Intentions is currently the subject of considerable interest to psychologists concerned with why people’s intentions to perform health behaviours are not always translated into action. Many studies have used relatively small samples of university students and self-reported measures of behaviour. It is now important to consider how effective II interventions are with clinical populations, how the results should properly be analysed, and how they achieve their effects.

Summary: We will consider four groups of adherence to medical advice that have in common the context and time-frame in which they are enacted. The first are behaviours that need to be performed on a daily basis such as taking a contraceptive pill, avoiding an acute infection or to improve health, or adhering to a long-term regimen of medication to control conditions such as hypertension. The second group are behaviours that need to be performed routinely and frequently, such as monthly performance of breast or testicular self-examination. The third group are behaviours that must be undertaken routinely but infrequently, such as attendance for cervical cancer screening or annual retinal photography screening. The studies that will be presented provide examples of each of these behaviours. The first presenter will review two studies reporting II interventions for adhering to daily medication and will introduce some preliminary findings from an ESRC funded intervention for people taking antihypertensive medication. The second will present an intervention to increase attendance for cervical screening, and the third, to encourage breast and testicular self-examination. The role of implementation intentions interventions to increase adherence to daily medication

L. QUINE, D.R. RUTTER & L. STEADMAN, University of Kent at Canterbury.

Background: Hypertension (high blood pressure) affects almost a quarter of the population and controlling it significantly reduces risk of coronary heart disease and stroke. Adherence to medication is an important factor in controlling it, however it has been estimated that as many as 50 per cent of patients do not adhere though many may intend to do so. Morrell et al. (1997) suggested that this is the most common reason. Gollwitzer (1990) argued that progress to a particular goal has two phases. The first is a deliberative phase in which the costs and benefits of pursuing the goal are evaluated. This phase results in the development of goal intentions, which determine what one is going to do to perform the behaviour. The second phase is implemental and involves planning where, when and how to carry out a goal-directed behaviour. Gollwitzer demonstrated that both phases – the planned Implementation Intentions (II) – increases the likelihood that a behaviour will be enacted.

Implementation intentions interventions thus seem to offer a promising way to increase medication adherence.

Methods: Two prospective randomised II interventions to increase medication adherence to Vitamin C and Cod liver oil pills in university students using convenience samples were carried out. Preliminary results from a longitudinal randomised control trial to increase adherence to anti-hypertensive medication in patients with high blood pressure, recruited through GP practices will also be presented.

Findings: The II interventions were more successful. Participants in the intervention groups of both studies were significantly more likely to adhere to both Vitamin C and Cod liver oil pills, than those in the control groups.

Discussion: The implications for theory and practice are discussed.

An evaluation of an intervention to improve attendance rates for cervical screening: The effects of anticipated affect and the formation of implementation intentions

J.C. WALSH, National University of Ireland, Galway.

Background: There is substantial evidence that mortality from cervical cancer can be reduced by regular attendance for a cervical smear test. This study examined the physical and psychological factors that predict attendance for cervical screening (i.e., using the Theory of Planned Behaviour (TPB), in a sample of over 1000 women aged between 25 and 60 years of age.

The study examined whether intentions affect on attendance for a smear and evaluated the effectiveness of an intervention that encourages women to form implementation intentions as a mechanism to increase uptake rates.

Methods: Participants were randomly selected (N = 3000) from the Irish Cervical Screening Programme database of all women aged between 25 and 60 in the Mid-Western Health Board region and sent the study questionnaire and a letter encouraging them to attend for a smear test. Attendance was measured by computerised records sent from the cytology laboratories. Half of the sample was asked to formulate implementation intentions (i.e., form implementation intentions) in their questionnaires.

Findings: The questionnaire response rate was 41 per cent. Overall attendance for a smear test was poor (17 per cent). The TPB variables and anticipated affect were significant predictors of intentions to attend. The intervention was effective, with women assigned to the implementation intention condition significantly more likely to attend for a smear than those who did not (32% vs 25 per cent) (c² = 5.55, df = 1, p = 0.02).

Discussion: The results of this study demonstrate that a simple intervention was effective in increasing attendance for a smear test and has implications for future cancer screening programmes.

The role of planning, intention and perceived control in implementation interventions


Background: In an intervention reported to this conference, we found that women who were asked to form implementation intentions and who wrote their plan down were subsequently more likely to attend for a breast cancer screening than those who were not exposed to the intervention or who were exposed to it but failed to record their plan. Later analysis of the data showed that the effect was restricted to women whose initial intentions were weak, and may have occurred through a ‘strengths endorsement’ effect.

Objective: The findings challenge the traditional argument that implementation intentions are volitional rather than motivational and work best for people whose intentions are strong.

Methods: To explore the issues further, we have gone on to examine the effects of a combined motivational and implementation intervention, on breast self-examination (BSE). A sample of more than 200 women undergraduates in lectures and seminars were given questionnaires about BSE, and through a final section of the questionnaire were exposed to one of four interventions: none; motivational (notes on the benefits of doing BSE); volitional (implementation intentions interventions on when and when to do the behaviour); and motivational and volitional combined. Self-reported behaviour was measured a month later.

Findings: Two main findings emerged: the only intervention to produce greater adherence than the control condition was the combined one; and the effect was again strongest for respondents whose intentions were weak.

Discussion: The implications for theory and practice are discussed.

A systematic review of the effectiveness of implementation intention interventions for health-related behaviours

C. BRIDLE, University of York, L. STEADMAN, University of Kent & C. JACKSON, University of Leeds.

Background: The concept of implementation intentions has generated much intervention research in recent years, as well as several meta-analyses. However, there has been no systematic review of the effectiveness of intentions to change health-related behaviours, and the effectiveness of this approach in the context of health behaviour thus remains unknown.

Methods: In order to identify relevant studies, 12 databases were searched, bibliographies of retrieved articles were handsearched, and authors were contacted for additional unpublished studies. Study designs eligible for inclusion were randomised trials using implementation intentions to change health behaviour. Extracted data included details of the intervention, participants, target behaviour, results and conclusion. The methodological quality of included trials was assessed against pre-defined criteria. Two reviewers carried out all stages of the review independently. Studies were heterogeneous and thus data were synthesised narratively.

Findings: 14 studies met the inclusion criteria. The methodological quality of the studies was mixed. Common limitations included potentially flawed randomisation procedures, inadequate follow-up of participants, and a failure to use intention-to-treat analysis. No clear results on the type of analysis used, approximately half of the studies reported results favouring the implementation intention intervention, with the remainder reporting no difference between intervention and control groups.

Discussion: Potential sources of heterogeneity are discussed. It is concluded that results are promising but, given the methodological limitations of the available evidence, results should be interpreted with caution. There is a need for good quality studies that evaluate the effectiveness of implementation intention interventions in relation to health-related behaviour, particularly with non-student populations.

Innovative research methods in health psychology

Convener: J.P. FRENCH, University of Cambridge.

Chair & Discussant: T.M. MARTEAU, GKT School of Medicine, London.

Aims: The overall aim of this symposium is to provide examples of research employing research methods that are currently not in widespread use. More specific aims are:

- To introduce these methods to researchers who might consider using these methods themselves.
- To highlight the strengths and weaknesses of these methods, to inform peers who may have to evaluate research using these methods.

The British Psychological Society 2004 Proceedings 27
By explicitly contrasting these innovative methods with more widespread methods, it helps to emphasize the unique contributions of the study and underscores the more widespread methods, and their potential implications.

**Rationale:** These innovative methods are being increasingly used, driven at least partly by dissatisfaction with more widespread methods. It is, therefore, important to attend to these innovative methods, to allow considered judgements to be made about their use.

**Summary:** The center in this symposium will introduce a method by presenting a concrete example of its application, enabling practical issues in its use to be exemplified. However, each presenter will focus on the strengths and weaknesses of the method employed, when compared to more widespread alternatives. Dan Mason presents the results of a study that investigates the impact of information about personal risk alongside the risk of data. Collection was undertaken over the worldwide web, allowing access to large and diverse samples. Amanda Bishop presents a study investigating pregnant women’s preferences for three prenatal screening tests. Conjoint analysis was employed, allowing a quantitative assessment to be made of the importance of these features.

David French presents a study investigating how a general public sample view three risk factors as combining to produce overall CHD risk. Coombs unfolding technique was used to elicit measures with genuine interval properties. This general analysis yielded measures with genuine interval properties, and hence a valid test of interaction. The application of Coombs unfolding technique and conjoint measurement analysis were employed, allowing all variables to be appropriately scaled and hence to allow a valid analysis to be conducted.

Jane Clatworthy presents a systematic review of studies employing cluster analysis in health psychology. She reports that studies using this technique were not reported in sufficient detail to be evaluated. Finally, Sarah Milne presents an investigation that attempts to predict intentions to take steps to reduce stress. Neural network modelling showed a marked improvement in terms of prediction over the more conventional linear regression approach.

**Absolute versus relative differences between personal and social comparison risk levels:**

**A web-based experiment**

D. MASON, University of Cambridge, S.R. SUTTON, University of Cambridge & T.M. MARTEAU, King’s College London.

**Background:** We describe the development of a web-based experimental study examining the contribution of relative versus absolute differences in risk perception to personal and social comparison risk estimates for cardiac events. When a person responds to discrepancies between hypothetical risk estimates for himself or herself and for the average person, it is not clear whether they primarily attend to the absolute difference between the point estimates, or to their ratio.

**Methods:** We recruited 400 participants via the web. We use a between-groups design, presenting different levels of hypothetical personal and social comparison risk estimates for cardiac events. When a person responds to discrepancies between hypothetical risk estimates for himself or herself and for the average person, it is not clear whether they primarily attend to the absolute difference between the point estimates, or to their ratio.

**Findings:** We found an interaction between level of personal risk and absolute difference between risk levels, but no interaction between level of personal risk and relative difference between risk levels. Participants appeared to be responding primarily to relative differences between risk levels.

**Discussion:** We suggest that when patients are presented with risk information, the information should stress the relative difference between a patient’s risk estimate and population risk. Web-based delivery of the experiment gave us inexpensive access to a large number of participants using a highly flexible presentation medium, and reduced the potential for experimenter bias. However, without an experimenter on hand, motivation to stay within the experiment was low and withdrawal was therefore more common. Further, participants who initially consented to the study did not go on to submit data.

**Using conjoint analysis to assess women’s preferences for different screening tests**

A.J. BISHOP, T.M. MARTEAU, D. ARMSTRONG, King’s College London, L. CHITTY, C. BERLIN, University College Hospitals, D.P. FRENCH, University of Cambridge & M. BUXTON, Brunel University.

**Purpose:** To describe and compare conjoint analysis (CA), a technique commonly used in health economics, with rating and ranking procedures, to elicit women’s preferences for prenatal screening tests with different characteristics.

**Method:** 247 pregnant women completed a questionnaire using three methods of assessing preferences: Rating scales, Ranking and CA. It required women to choose between nine hypothetical pairs of different Down’s syndrome (DS) screening tests varying in three key attributes: time at which the test is conducted, its detection rate and whether the risk of miscarrying a pregnancy unaffected by DS as a result of subsequent diagnostic tests. Responses were analysed using a random effects probit model.

**Results:** Preferences elicited varied by method. Rating scales did not discriminate between the three tests, ranking quite well as equally important. Ranking and CA generated a similar ranking of the tests as equally important. Ranking and CA identified women’s preferences for different DS tests. Contrary to CA findings, ranking generated time as least important. Additionally, CA enables willingness to ‘trade’ to be calculated, e.g. women are willing to accept a 0.52% increase in detection rate for a one per cent increase in waiting time.

**Conclusion:** Conjoint analysis provided a quantification of the relative importance women attach to different characteristics of a test, providing more sensitive information than that provided by rating scales or ranking.

**Perceptions of synergistic heart disease risk due to smoking and family history:**

An application of Coombs unfolding technique and conjoint measurement analysis

D.P. FRENCH, T.M. MARTEAU, GKT School of Medicine, J. MICHELL, University of Sydney, S.R. SUTTON, University of Cambridge & A.L. KINMOUTH, University of Cambridge.

**Background:** The combined risk of coronary heart disease (CHD) due to family history and smoking is greater than the sum of these factors operating in isolation. Most research in this field suggests the combined risk is less than the sum of these factors operating in isolation. However, these studies employ rating scales that assume equal intervals, despite good evidence to suggest that this assumption is invalid. Valid tests of interaction require measures with genuine interval properties. This study aims to develop such measures, to examine how people see three risk factors as combining.

**Method:** Cross-sectional questionnaire study, 281 UK women, 245 women with Type II diabetes (N = 94), current smokers (N = 176), or both (N = 19). Perceptions of overall CHD risk, smoking and three elements of family history, and stress. Coombs unfolding technique was used to develop measures with genuine interval properties; conjoint measurement analysis to test for quantitative structure; linear regression to examine how perceptions of the three exposures are related to perceptions of overall risk.

**Findings:** All four measures showed marked deviations from the assumption of equal interval scaling. There was no evidence of interaction using either method of scaling.

**Discussion:** The application of Coombs unfolding technique yielded measures with genuine interval properties, and hence a valid test of interaction. In contrast to previous research, this study suggests that people appraise heart disease risk and stress as contributing independently to risk of heart attack.

**Misreporting of cluster analysis in health psychology: A systematic review**

J. CLATWORTHY, University of Brighton, M. HANKINS, University of Brighton, D. BUICK, Macmillan Cancer Relief, J. WEINMAN, King’s College London & R. THORNE, University of Brighton.

**Background:** Cluster analysis is a collection of relatively simple descriptive statistical techniques with potential value in health psychology as a means of identifying target groups for interventions/ further research. There are many methods of cluster analysis from which to choose, with no clear guidelines to aid researchers. In the absence of guidelines it is likely that researchers will adopt the methods already reported by published researchers, and so the misreporting of cluster methods is of paramount importance. The aim of this review is to describe and evaluate the reporting of cluster analysis in health psychology publications.

**Methods:** Electronic searches of 18 health psychology journals identified 54 articles using cluster analysis published between 1984 and 2001. Articles were submitted to systematic evaluation against published criteria for the reporting of cluster analysis.

**Findings:** Over 75 per cent of the papers reviewed did not meet the reporting criteria. Despite the similarity of computer programs used, most were frequently omitted. Furthermore, whilst researchers usually reported the procedures employed to determine the number of clusters and to validate the clusters, these procedures were lacking in rigour, and were reported in insufficient detail for replication.

**Discussion:** The reporting of cluster analysis in health psychology is unsatisfactory. The overall paucity of information provided by such reporting raises questions about the quality of the analyses actually conducted and the ability of other researchers to replicate findings. Clear guidelines for reporting and misreporting of cluster analyses in health psychology will be presented.

**Advances in neural network analysis for health psychology**

S. MILNE & I. WALKER, University of Bath.

**Background:** This presentation describes an application of neural network modelling to health psychology. The aim of the study was to explore factors predicting individual differences in stress perception and coping behaviour.

**Methods:** Data were collected from 371 employees of the Ministry of Defence’s Warship Support Authority based in the west of England. Participants provided measures of their workplace stress levels and whether they would take up an intervention to reduce this. Personality and coping measures, together with measures based on social cognitive models of behaviour, were also collected. These data were modelled with the aid of neural network.

**Findings:** In the first analysis, a three layer, feed forward neural network was used as an alternative to regression. This accounted for 67 per cent of the variance in the outcome (part in a stress control intervention, whereas linear regression accounted for 49 per cent. Moreover, the neural network identified useful groups of participants form the data that would not have otherwise been visible. The second analysis used a classification network to model the data set, after which the model was examined with various hypothetical participants, to see how it had
Looking good ... feeling good? Body image concerns, health behaviours and treatment decisions

Convenor: N. RUMSEY, University of the West of England, Bristol.
Chair & Discussant: K. GLEESON, University of the West of England, Bristol.
Aims: (a) To illustrate the wide range of health relevant research on body image currently in progress in several research groups in the UK and internationally; (b) To explore the potential contributions of qualitative, quantitative and 'mixed' methodologies to health related body image research; (c) To illustrate the assumptions about definitions and the measurement of body image underpinning the majority of health related research; and (d) To discuss the role and potential for a closer relationship in this area.

Rationale: Although there is a history of body image research in other specialisms within psychology, the role of body image as a construct which has been widely and productively employed in the development of educational psychologists drawn from representative research groups will provide examples of current research in health psychology.

Summary: Papers have been selected to illustrate the wide range of health related contexts. The first three papers examine the impact of BI dissatisfaction across the lifespan, highlighting the effects and potential contributions of qualitative, quantitative and ‘mixed’ methodologies to health related body image research. These assumptions are that: (1) Body image is a hypothetical construct which has been widely and productively used by health psychologists to explain patterns of related behaviours. (2) Perceptions of body image, and every day events (e.g. eating, exercising) activate schema-driven processing of information and every day events (e.g. eating, exercising) activate schema-driven processing of information and (3) can be treated, and every day events (e.g. eating, exercising) activate schema-driven processing of information and (3) can be treated, and (4) is ‘internal’ and, and (4) is ‘internal’ and, (5) is a product of perception; (3) can be treated, and (4) is ‘internal’ and, (5) is a product of perception; (5) is a product of perception.

Methods: Thematic analysis of interview data (N = 42) was used to explore people’s views of the aging of their bodies, whilst men’s attitudes were relatively straightforward in their views of appearance of the body, women unambiguously evaluated the impact of ageing negatively. In contrast men reported that ageing had a neutral or even positive impact on appearance.

Discussion: These discussions highlight the importance of considering age in sociocultural theoretics. Furthermore, they suggest that ageing has gender-specific consequences for health-related behaviours.

Understanding women’s experience of Ductal Carcinoma in S itu (DCIS): Qualitative study

D. HARcourt & C. GRIFFITHS, University of the West of England, Bristol.
Background: Ductal Carcinoma in Situ (DCIS) is a non-invasive form of breast cancer, most often diagnosed through mammogram screening. In times when less disfiguring breast conservation techniques are the treatment option favoured by many women with invasive breast cancer, DCIS provides an interesting paradox: although it is a pre-cancerous condition, many women diagnosed with DCIS undergo full mastectomy – a treatment synonymous with immediate breast cancer. Until now there has been a dearth of research into the psychological impact of non-invasive breast cancers (Serrara & Payne, 1999). Therefore this study examined the psychological impact of the diagnosis and treatment of DCIS with particular reference to appearance concerns.

Methods: A qualitative approach was taken to data collection and analysis. Semi-structured interviews were carried out with eight women who had undergone mastectomy and treatment. Women were encouraged to discuss all aspects of their experience including initial reaction to the diagnosis, understanding of the condition, involvement in treatment decisions and the implications of surgery in terms of appearance-related concerns and psychological distress. Data were analysed using a thematic approach.

Findings: Women discussed their experiences in terms of the treatment they received, as opposed to the diagnosis they were given. Issues of body image were salient for most women, and were discussed at length particularly by those who had undergone mastectomy, with or without breast reconstruction.

Discussion: This paper will discuss the role of Health Psychology in informing the provision of care to more closely address the concerns of women with this increasingly diagnosed, condition.

Body imaging: Deconstructing the concept of body image

K. GLEESON & H. FRITH, University of the West of England.
Background: Body image is a hypothetical construct which has been widely and productively used by health psychologists to explain patterns of related behaviours. However, its relativity has led to a series of unarticulated ideological and conceptual assumptions, which have obscured its dynamic and productive features. These assumptions are that: (1) body image exists; (2) is a socially mediated product of perception; (3) can be treated, and measured, as if real; (4) is ‘internal’ and,
therefore, ‘of the individual’; and (5) people are not aware of or affected by the assumptions that psychologists ask about BI and overlook limitations. Thus, BI is not a product, rather than a process or activity, engaged in making meaning of their bodies; and (2) people are agentically fluid and shifting and is experienced in context psychologists ask about BI and overlook limitations. Thus, BI is not a product, rather than a process or activity, engaged in making meaning of their bodies; and (2) people are agentically fluid and shifting and is experienced in context. These findings also underline the need for health practitioners and exercise promoters not to impose their own understandings of BI on their clients, but to base policy and interventions on people’s existing perspectives, practices, and understandings of physical activity.

Evaluating the influence of basic psychological needs and the perceived locus of causality in the Theory of Planned Behaviour in an exercise context

J. HARRIS & M.S. HAGGER, University of Essex.

Background: To investigate the impact of basic psychological needs and from self-determination theory (SDT; Deci & Ryan, 1985, 2002) on intentions and behaviour in an exercise context, using the Theory of Planned Behaviour (TPB; Ajzen, 1985) as a framework.

Methods: A longitudinal design using self-report data collected over 3 years. Participants were 261 undergraduates and members from the general public (186 females, 95 males, M age = 25.61, range = 17 to 81) completed measures of basic psychological needs (Time 1), motives for exercise from the perceived locus of causality (PLOC), a measure of physical self-esteem and constructs from the Theory of Planned Behaviour (Time 3). Data were analysed using path analysis.

Results: Preliminary analyses supported the hypotheses of the TPB, the influence of subjective norms excepted. An augmented version of the TPB that included the constructs from SDT and PLOC (PSE) indicated that intrinsic motivation (IM) and identified regulation (IR) predicted intentions indirectly via the mediated role of perceived autonomy support and subjective norms. Structural equation modeling supported direct and indirect effects from perceived autonomy support to intentions. The indirect effect of perceived autonomy support and intentions was mediated by attitudes. The effect of subjective norms on intentions was significant.

Discussion: The present study helps to resolve the lack of prediction exhibited by the subjective norms variable in the TPB by including perceived autonomous need. These findings also underline the need for health practitioners and exercise promoters not to impose their own understanding of BI on their clients, but to base policy and interventions on people’s existing perspectives, practices, and understandings of physical activity.

Physical activity around the world: International comparisons of behaviour, beliefs and knowledge of the risks of inactivity

A. HAASE, A. STEPTOE & J. WARDLE, Cancer Research UK, University College London.

Background: Physical inactivity has been linked with chronic disease and obesity in most western populations. However, prevalence of inactivity, health beliefs, and knowledge of the risks of inactivity have rarely been assessed across a wide range of developed and developing countries.

Method: Cross-sectional survey data were collected using standardised methods between 1999 and 2001 from a sample of 19,298 university students from 23 different countries falling into five geopolitical/economic groups: Northern Europe, Mediterranean, Eastern Europe, Mediterranean and Eastern Europe, Mediterranean, Eastern Europe, Mediterranean, and Eastern Europe, Mediterranean, European, and Eastern Europe, Mediterranean, European, and Eastern Europe. Separate analyses were conducted for boys and girls with adjustments for clustering within schools.

Findings: There was no significant correlation between physical activity and sedentary behaviour (r = 0.014, p = 0.38). The regression analyses indicated that the behaviours were associated with different variables. The relationships were broadly similar in both boys and girls, however, in the case of sedentary activity a larger proportion of the variance was explained in girls than in boys.

Conclusions: The lack of prediction exhibited by the subjective norms variable in the TPB by including perceived autonomous need. These findings also underline the need for health practitioners and exercise promoters not to impose their own understanding of BI on their clients, but to base policy and interventions on people’s existing perspectives, practices, and understandings of physical activity.
Understanding stroke survivors’ distress: A practical area for diverse theory

Convenor: E. TOWNEND, Glasgow Caledonian University.
Chair: K. NIVEN, University of Stirling.
Discussant: M. JOHNSTON, University of Aberdeen.

Aims: Emphasise the importance of psychological study of distress following stroke; Introduce the broadness of issues facing stroke survivors (and researchers); Present studies demonstrating the utility of various theoretical approaches; Take stock of our theoretical and empirical advances and discuss future challenges.

Rationale: Bring together geographically diverse researchers; Encourage further interest in stroke; Highlight the two main focuses for theory and research relevant to stroke, illness, disability, recovery and recurrence.

Summary: Emotional distress, particularly depression, is prevalent and pervasive following stroke (e.g. Sharpe, 1994) and appears to impact on functional recovery (e.g. Morris, 1992) and survival rates (e.g. Lewis, 2001). A systematic review found no evidence for a specific organic cause for depression following stroke (Carson et al., 2000). This background highlights the appropriateness of the identity change focused on stroke survivors’ own perceptions. The range of areas for study relevant to stroke is extremely wide creating the need for diverse theory. This broadness is reflected in our four presentations: (1) Ellen Townend used three strands of theory as a starting point - stroke attribution theories and beliefs in recovery; (2) Shirley Thomas used the cognitive theory of depression to validate the Stroke Cognitions Questionnaire Revised (SCQR) studying positive and negative cognitions after stroke; (3) Danny Vine used social ranking theory to understand non-adherence. Our results suggest that: (1) A small sample of cognitive-behaviour therapy (CBT) treatment notes of depressed stroke patients. In this study the scale was revised using a larger sample of treatment notes to assess the cognitive theory of depression in stroke patients. Methods: Treatment notes and diaries from 38 depressed stroke patients were reviewed. Findings: The Stroke Cognitions Questionnaire Revised (SCQR) demonstrated high internal reliability (Chronbach’s alpha = 0.91). SCQR and BDI-II scores were significantly correlated when time since stroke and Barthel scores were partialled out (r = 0.78, p < 0.001). Depressed patients experienced significantly more negative and less positive cognitions than non-depressed patients (p < 0.01). Exploratory factor analysis extracted a two-factor structure of positive and negative cognitions explaining 49 per cent of the variance. Excellent inter-rater reliability was found (Kappa = 0.89-1).

Discussion: The SCQR is a valid measure of stroke-related depression in stroke patients. Depressed patients reported significantly more negative cognitions in accordance with the cognitive model of depression. The SCQR may be useful in identifying depressive cognitions, which can be addressed in cognitive-behaviour therapy.

The association between shame and stroke: A preliminary study

D.J. VINE & S. HORN, Dept. of Psychology, University of Southampton.

Background: Studies have demonstrated relationships between negative evaluations of the self, such as shame, and acquired disability, but have tended to overlook individuals who are disabled following stroke. The aim of this study was to investigate whether there was an association between shame and the aftermath of stroke.

Method: 51 participants were employed in this study. 25 were post-stroke (12 females and 13 males, aged 39 to 83-years-old), of which eight had, or were being treated for, depression; and 26 age-matched controls (18 females and eight males, aged 50 to 89-years-old), of which 11 had, or were being treated for, depression. A cross-sectional design was employed in which all the participants completed two shame questionnaires (the OAS and PFOQ-2), and a depression questionnaire (BDI).

Findings: CRO and statistical analyses indicated that there was no significant mean difference between non-stroke and stroke groups on OAS shame score (F (1, 51) = 1.81, p = 0.21) or PFOQ-2 shame scores (F (1, 51) = 0.64, p = 0.43). However, when depression was employed as a covariate, a significant effect was produced on the OAS – BDI score, (F (1, 51) = 11.96, p = 0.001) and the PFOQ-2 – BDI score, (F (1, 51) = 13.98, p < 0.001).

Conclusion: An association between both shame measures and severe depression. Regardless of whether or not participants had sustained a stroke, both a personal sense of shame and the belief that others viewed one negatively appeared related to depression.

Illness representations and distress in stroke patients: An analysis using the SRM

S. JOICE, D. BONETTI, University of St. Andrews, R. MacWALTER, University of Dundee & V. MORRISON, University of Bangor.

Background: Leventhal’s Self-Regulation Model (SRM) proposes that patients cognitively process their illness via two separate pathways: illness and emotional representations. Pathways: illness and emotional representations (IR, ER) Past research has found relationships between illness and emotional representations of stroke patients. This paper further investigates whether stroke patients’ illness representations: (1) Are related to distress? and (2) Are different from those of pain patients?

Methods: 37 stroke patients (mean age 64.43 yrs s.d. 8.14, 13 males) were interviewed using the Illness Perception Questionnaire (IPQ-R) and the Hospital Anxiety and Depression Scale (HADS) two weeks after discharge. Findings: IPQ-R ER, anxiety and depression were statistically significantly related to illness coherence (r = 0.51, r = 0.51, r = 0.42 p < 0.01) and time cyclical (r = 0.41, r = 0.37 p < 0.05). Stroke patients differed from chronic pain patients in greater illness coherence and control (personal and treatment) yet perceived less identity, timeline, (acute/chronic and cyclical), consequence, and ER. Compared with non-stroke patients, stroke patients had greater identity, timeline (acute/chronic and cyclical) and consequence and ER (all t values > 0.05).

Discussion: Following discharge stroke patients’ distress was associated with perceived consequences, understanding and fluctuations of their condition. Past illness experience, perceived consequence as confidence in recovery, has also been predictive of distress. Stroke patients’ representations differed from patients with other conditions suggesting that interventions to reduce distress need to be tailored to the specific illness and its associated representations to be effective.

Advances in illness representation research: Theory development and diverse applications

Convenor & Chair: M. HAGGER, University of Essex.
Discussant: J. WEINMAN, Guy’s, King’s and St. Thomas’ School of Medicine, Kings College, London.

Aims: (1) To give an overview of the recent theoretical advances in the area of illness representations; (2) To report on research trends in illness perceptions across a number of studies; and (3) To provide a forum for the dissemination of recent and original approaches to the study of clinical populations using the illness perceptions approach.

Rationale: A recent review of the empirical research adopting the self-regulation model (SRM; Leventhal et al., 1980) has suggested that it is an approach that is receiving much attention (Hagger & Örbel, 2003). Furthermore, the review suggests that there are consistent patterns of relationships among the components of the SRM across studies. Notwithstanding this consistency, further research is required to address gaps in the research such as the application of the model to an increasingly broad spectrum of illnesses, and to further develop the theory toward a more effective understanding of the role of illness representations and influences on illness and coping. To this end, the present symposium aims to assemble researchers who have been producing both theoretical and empirical advances to research using the SRM in the past alongside current researchers who have recent data to promulgate. It is expected that the presentations in the symposium will provide a showcase for current
state of the research in illness perceptions and self-regulation theory.

Summary: It is evident that the symposium begins with Rob Horne’s (University of Brighton) contribution since it outlines his very recent additions to the theory and introduces an extended self-regulation model (e-SRM). Martin Hagger (University of Essex) will introduce a study examining the impact of cognitive and emotional representations of illness on the emotional outcomes of women after attending a colposcopy clinic. Paul Norman (University of Sheffield) will present findings of a prospective study examining the SRM in women at risk of breast cancer. Ian O’Sullivan (University of Essex) presents findings from the efficacy of the self-regulation model to explain how patients who have received an abnormal colorectal cancer screening test and attended colonoscopy. Finally, Gwyneth Rees (University of Stirling and Cancer Research UK) will present a paper examining the differences on cognitive and emotional representations of illness in women at-risk of breast cancer compared with a normal-risk control group. These presentations give an overview of recent theoretical advances as well as being indicative of the state of the research with the SRM. Each contributor proposes caveats, modifications and further questions with respect to the use of the SRM in research in illnesses that are likely to catalyse further investigation and development in this area.

Treatment perceptions and self-regulation

R HORNE, University of Brighton.

This paper will consider the role of treatment beliefs in the self-regulation of illness. It will argue that a better understanding of how people perceive treatments could improve our ability to operationalise theories of social cognition and self-regulation, and to explain variations in treatment-related behaviour such as treatment choice and adherence and how they could be used to develop interventions to optimise the use of health care resources. Using prescription medication as an example, this paper will present a presently-concerns framework for conceptualising the specific treatment beliefs that may be particularly salient to adherence. Drawing on empirical studies spanning a range of illnesses such as asthma, HIV, cardiovascular and renal disease, it will examine the utility of the framework for explaining adherence. The paper will present an extended-common-sense model (e-CSM) in which ‘common-sense’ representations of treatment (e.g. necessity-concerns) as well representations of illness are predicted to explain variations in treatment-related behaviour. The e-CSM illness and treatment representations are related as the individual strives to attain common-sense illness perceptions that are consistent with their perceptions of the illness and treatment. In common with illness perceptions, treatment representations are processed at a cognitive and emotional level and influence the selection and appraisal of coping procedures. Moreover, for treatments such as medication or surgery that are perceived to carry risks or costs, these are balanced against perceived need. The paper will present a framework for understanding the contextual factors that influence these ‘protopathic’ beliefs (e.g. beliefs about classes of treatments, e.g. medication vs homeopathy), past experiences of ourselves and others, social and cultural norms, the influence of feedback from various sources and satisfaction with care.

Illness representations and specific emotional responses in women attending for colposcopy following a positive cervical smear test

M.S. HAGGENDAL & S. ORRILL, University of Essex.

Background: The present study adopted self-regulation theory (SRT; Leventhal et al., 1980) to examine the cognitive and emotional representations of illness on the emotional responses of women after their first visit to a colposcopy clinic. Methods: Women who had received a positive cervical smear test (N = 1258) were recruited at their first visit to the colposcopy clinic. Three weeks prior to their first follow-up visit, the women were sent a questionnaire containing the following measures: the Illness Perceptions Questionnaire-Revised (IPQ-R; Moss-Morris et al., 2002), the state-trait anxiety inventory (STAI; Spielberger et al., 1983), the inventory of anger, embarrassment, guilt, relief and sadness (Smith et al., 1993), and a measure of intention to attend their follow-up visit. The response rate was 52 per cent.

Findings: Emotional representations and illness coherence and vulnerability representations significantly predicted to all of the emotional outcomes, embarrassment excepted. Serious consequences had a significant influence on all of the emotional outcomes and significantly influenced all the emotional outcomes, except guilt. Attribution of the emotional abnormality to physical or psychosocial causes predicted all of the emotional outcomes but relief. Importantly, emotional representations mediated the influence of serious consequences on the emotional outcomes, but intention did not mediate the representation-outcome relationships.

Discussion: Results support the inclusion of both emotional and vulnerability components from SRT to explain the illness outcomes. However, planning to attend a follow-up visit to the colposcopy clinic for a cervical smear coping behaviour, did not assist in explaining the representation-emotion relationships.

Illness perceptions and adaptation following a first-time myocardial infarction

N. MITCHELL & P. NORMAN, University of Sheffield.

Background: This paper considers the role of illness perceptions in relation to adaptation following a first-time myocardial infarction (MI). According to Leventhal’s Self-Regulation Model, individuals form an illness representation when faced with the unexpected or threat that is structured around five dimensions: (i) disease identity; (ii) cause(s); (iii) consequences; (iv) time-line; and (v) cure-control. The illness representation is then used to guide thoughts and, thereby drives adaptation to the illness.

Methods: First-time MI patients completed questionnaires whilst in-patients (< five days post-MI) (N = 124), in (ii) three weeks post-discharge (N = 92), and (iii) at three months post-discharge (N = 76). The questionnaires included measures of illness perceptions (IPQ), anxiety and depression (HADS), and various health behaviours. Hierarchical regression analyses were conducted in which baseline measures of the dependent variables were entered at a first step followed by baseline IPQ measures at a second step. Findings: Baseline illness perceptions were able to explain additional variance in time 2 anxiety (ΔR² = 0.12, ΔF = 2.54, p < 0.01) and depression (ΔR² = 0.19, ΔF = 3.48, p < 0.001), with the perceived consequences dimension emerging as an important predictor. Baseline illness perceptions were unable to explain an additional variance in time 3 anxiety (ΔR² = 0.09, ΔF = 1.06, ns) and depression and (ΔR² = 0.18, ΔF = 1.63, ns). Considering changes in health behaviour, baseline illness perceptions were only able to explain additional variance in time 2 vigorous exercise (ΔR² = 0.20, ΔF = 1.95, p < 0.05) and time 3 alcohol (ΔR² = 0.13, ΔF = 2.98, p < 0.001), with the control/cure dimension emerging as an important predictor.

Discussion: Results provide only limited support for the Self-Regulation Model. Suggestions for modifications to the model and its operationalisation are discussed.

Illness representations in patients attending for colonoscopy following a positive Faecal Occult Blood test (FOBT) screening result

I. O’SULLIVAN & S. ORRILL, University of Essex.

Background: To date illness representations have been studied predominantly in relation to people’s experience of chronic illnesses. Receiving information of a potential health threat by way of screening test result also leads to cognitive and emotional responses which may be a useful framework for studying coping in this context. The purpose of the study was to investigate the illness representations of people attending for colonoscopy following receipt of an abnormal FOBT result. Methods: A cross-sectional survey design was utilised. 701 people who attended for colonoscopy following receipt of an abnormal FOBT result completed questionnaires. Illness representations were measured by the IPQ-R and coping strategies were measured using the revised Ways of Coping Questionnaire. Results: Emotional representations, treatment and personal control were the most consistent predictors of the different coping strategies/behaviours.

Discussion: Illness representations regarding how important predictors of the coping strategies/behaviours utilised by people in receipt of abnormal screening test results. The implications of these results in terms of the application of the Common Sense Model of Illness representations are discussed.

Using the Self-Regulatory Model to understand psychological response to genetic predisposition to breast cancer

G. REES, A. FRY & A. CULL, University of Stirling.

Background: There are large individual differences in women’s reactions to receiving genetic testing for a higher risk of breast cancer. Experience of breast cancer in the family has been linked to psychological response in women with the genetic predisposition to breast and ovarian cancer. The Self-Regulatory model (SRM) provides a theoretical understanding of these relations. This paper discusses the adaptation of the model to this population and outline a strategy that aims to examine the associations between experience of breast cancer, illness perceptions and levels of distress.

Methods: Cross-sectional postal questionnaire study; 117 women at increased risk of breast cancer and 100 controls. Measures included the Illness Perceptions Questionnaire-Revised (IPQ-R) adapted for healthy individuals, psychological well-being (GHQ-30) and cancer specific distress (Cancer Worry Scale), and experiences breast cancer.

Findings: Experience of illness perceptions: Women at increased risk held different perceptions of breast cancer than controls. Behaviour experiences: The increased sample were associated with illness perception dimensions. Illness perceptions and distress: In the increased risk sample both general and cancer specific distress dimensions were measured with the influence of illness perception, timeline acute and consequence subscales of the IPQ-R (p < 0.05).

Discussion: The SRM can be applied to healthy individuals at risk of disease. Using the SRM in such populations is likely to provide implications for the development and evaluation of interventions aimed at improving response to risk. Further work is required to explore additional illness perceptions salient in this population.
Breast or bottle? Exploring beliefs and applying models to influence healthy infant feeding.

Convener & Chair: L.M. WALLACE, Health Services Research Centre, Coventry University.

Discussant: E.M. ALDER, Napier University.

Aims: Present qualitative research that explores the attitudes of young people, parents and family members to infant feeding. Use qualitative research to explore theory development, particularly concerning social norm. Examine the explanatory power of social cognitions (TPB models) on sustaining breastfeeding for four months or longer. Investigate the role of TPB predictors in the experience of women who breastfeed, particularly concerning social norm. Examine the influence of breastfeeding on health and prevention of disease for mothers and infants, particularly concerning social norm. Examine the explanatory power of social cognitions (TPB models) on sustaining breastfeeding for four months or longer. Investigate the role of TPB predictors in the experience of women who breastfeed, particularly concerning social norm. Examine the influence of breastfeeding on health and prevention of disease for mothers and infants.

Methods: A number of lower-order categories were identified in the transcript which were then organised into the following higher-order categories: impact of others; beliefs that breastfeeding is best and natural; difficulties of the first few weeks; cultural and religious practices around breastfeeding; duration; strategies to continue breastfeeding; breastfeeding etiquette; and bi-products of breastfeeding. The analysis of interviews included categorization and thematic analysis of responses. Transcripts were transcribed, coded andanalysed for themes using Grounded Theory methodology.

Findings: A number of lower-order categories were identified in the transcript which were then organised into the following higher-order categories: impact of others; beliefs that breastfeeding is best and natural; difficulties of the first few weeks; cultural and religious practices around breastfeeding; duration; strategies to continue breastfeeding; breastfeeding etiquette; and bi-products of breastfeeding. The analysis of interviews included categorization and thematic analysis of responses. Transcripts were transcribed, coded andanalysed for themes using Grounded Theory methodology.

Rationale: Promotion of breastfeeding is recognised to be one of the most potent public health interventions. The positive impact on health and prevention of disease for mothers and infants has been established in both the short- and long-term. Breastfeeding and the introduction of solid foods are highly connected to content, timing, administration, and especially hygiene. However, in the UK, babies from the least affluent families are at risk of ill-health. Those least likely to be breastfed are those least likely to breastfeed and those least likely to breastfeed are those least likely to be breastfed, and among all social groups, there is a rapid decline in breastfeeding. Breastfeeding among those 70 per cent of mothers who initiate, and only 22 per cent are still breastfeeding at four months. From 2003, all English NHS PCTs must achieve year-on-year increases in breastfeeding initiation by two per cent. Infant feeding involves complex learned and culturally influenced behaviour. To develop policies that will promote and sustain breastfeeding, it is essential to understand the experiences of young people before parenthood, pregnant women and their families.

Methods: A qualitative study of low income white pregnant teenagers’ views of infant feeding was conducted on pregnant teenagers on low incomes by McMillan (2002). Although much is known about prediction of intentions and behaviour, it is unclear how beliefs are related to breastfeeding at six weeks. A longitudinal study was conducted comprising 18 participants who were followed-up to four months and follow-up has continued until contact has been lost or last breastfeeding has been determined. To date, 189 mothers have reached an endpoint.

Findings: Measures of attitudes, subjective norm (SN) and perceived behavioural control (PBC) predicted intentions to breastfeed to four months. The inclusion of TPB correctly classified 77 per cent mothers’ breastfeeding status at four months, a significant improvement over demographic variables alone. When considering total duration of breastfeeding for those mothers who had reached an endpoint, the TPB predicted breastfeeding again explain a significant amount of variance above demographic variables. Breastfeeding in public was closely related to others’ attitudes of breastfeeding, including giving colostrum, using water and when to wean. There were also differences in breastfeeding rates between the Pakistani, Bangladeshi and Indian communities.

Conclusion: Linkworkers are the gatekeepers and provide advocacy for communities who do not speak fluent English and the qualitative methodologies produced a wealth of information about their breastfeeding beliefs and practices. Focus group methods were acceptable to the Bangladeshi and Pakistani communities, but Indian families preferred individual interviews.

Views of white pregnant teenagers experiencing deprivation towards breastfeeding and bottle-feeding, using framework analysis

L. MCCLEAN, Motherhood Research Unit, University of Leeds, B. McMillan & M. Conner, School of Psychology, University of Leeds, J.M. Green, M.W. Woolridge, M.J. Rennie & J. Daventon, Mother & Infant Research Unit, University of Leeds.

Background: This study aimed to identify views of teenagers expecting their first baby toward breastfeeding and bottle-feeding, including their perceptions of societal views.

Methods: Four focus groups were conducted comprising 18 participants who were aged between 16 to 19 years, and pregnant teenagers on low incomes and inner-city residents in a northern city.

Method: Data are considered to be a reflection of the complexities of individual’s views (Kitzinger, 1995) and generalisable to the wider population of teenagers in similar circumstances due to saturation of issues and diversity of backgrounds of individual participants (Miles & Huberman, 1994). Framework analysis generated thematic content (ibid).

Findings: Focus groups were generated on the disadvantages of formula feeding. In contrast, of the eleven themes emerging from this data, ‘disadvantages of breastfeeding’ dominated by the issue of breastfeeding in public generated the greatest scope and depth of data. Breastfeeding in public was closely related to other themes within breastfeeding and infant feeding, including giving colostrum, using water and when to wean. There were also differences in breastfeeding rates between the Pakistani, Bangladeshi and Indian communities.

Conclusion: The decision to breastfeed for pregnant teenagers on low incomes appears to be closely linked to the prospect of breastfeeding in public. This requires high self-esteem to overcome perceived adverse moral and cultural norms, including sexuality issues and ‘sluttish’ behaviour; typologies of infant feeding; and confidence and self-esteem. Perceived cultural norms also included concerns of being stereotyped as ‘bad mothers’ and reported to ‘Social Services’ and negative media exposure of breastfeeding.

How practical is the theory? Hiccups in applying the Theory of Planned Behaviour to infant feeding research

V. Swanson, University of Stirling.

Background: Promotion of positive attitudes to breastfeeding is a goal of UK health policy. Research has used social cognitive models to study infant feeding attitudes,
intentions and behaviour. The Theory of Planned Behaviour (TPB) allows the relative influence of components of the infant feeding decision to be identified and targeted for intervention. Attitudes towards health behaviours may change as function of perceived personal relevance. Since the decision whether to breastfeed or bottle-feed is often made well before conception, it is important to examine the attitudes of groups for whom the infant feeding decision is personally distant. Psychosocial variables of the TPB becomes methodologically more complex when the target behaviour is personally or temporally distant. This paper identifies some of the methodological difficulties encountered in applying the TPB in three studies of attitudes to breastfeeding and bottle-feeding in samples where the personal relevance of the behaviours varies.

Methods: Data from three cross-sectional questionnaire based studies of attitudes to infant feeding, both on TPB models, are utilised. (N = 406) new mothers and their partners (in hospital after birth and at follow-up), (N = 187) university students, and (N = 500) adolescent girls and boys.

Findings: New parents held stronger (both positive and negative) attitudinal beliefs regarding infant feeding (both breastfeeding and bottle-feeding) than school pupils (all p < 0.001), implying greater belief strength for individuals for whom the issue has greater personal relevance.

Discussion: The difficulties in applying and measuring the constructs of the TPB, i.e. attitudes, subjective norm, perceived behavioural control, intentions and behaviour in relation to breastfeeding and breast-feeding in groups exhibiting different degrees of personal relevance are discussed.

Physiology and health psychology

Convenor & Chair: P.D. EVANS, Psychophysiology and Stress Research Group, University of Westminster.

Discussant: F. HUCKLEBRIDGE, University of Westminster.

Pioneers of stress research, notably Hans Selye, emphasised the role of physiological and neuroendocrine processes in response to stressful circumstances. Comprehensive theories now consider stress a transactional process, involving internal stressors, their psychological appraisal and modulation. By impacting on physiological processes, stress can significantly affect health. More than a decade of research has illustrated the hypothalamic-pituitary-adrenal (HPA) axis activity to include the role of maternal occupational stress.

Methods: Self report questionnaire and salivary cortisol data were collected at baseline (T1) and at six-month follow-up (T2) in 67 mother-child dyads with pre-school age children (32 boys and 35 girls). Cortisol levels were assessed at 5:00 to 6:00 p.m. across two consecutive days and mean diurnal change in cortisol was calculated. Questionnaire data included child temperamental, family of origin and socio-economic status following vaccination in young, healthy adults. Perceptions of, and coping response to, stress were at least as important as objective life events and physiological reactivity to stress provides a potential mechanism of interaction.

Findings: Univariate analyses found lower secretion rates of sIgA to be associated highly significantly with greater stress, as measured by self-reported dissatisfaction over a number of life domains. Lower sIgA was also found to be significantly with greater reporting of symptoms of ill-health of all kinds. Multivariate analyses confirmed that these processes were robust with respect to control for demographic variables, smoking status, time of saliva sampling and interview, and current medication.

Discussion: Although the research is exploratory, we conclude that sIgA, in terms of convenience and cost, shows considerable promise as a biomarker for inclusion in a raft of stress-related measures in large-scale survey research concerned with psychosocial determinants of health.

INDIVIDUAL PAPERS

Patients’ perceptions and management of psoriatic flare-ups

D. ADAMS, Bro Morganwng NHS Trust.

Background: This study set out to explore patients’ perspectives regarding relapse, remission, predictability, controllability and management of subsequent flare-ups.

Methods: Given the lack of research in this area, a qualitative methodology was adopted and data collected and analysed using the Grounded Theory approach. Ten adults with chronic psoriasis were interviewed in total.

Findings: A number of important themes emerged from analysis, some of which were organised under the headings: Beliefs about Psoriasis as a Chronic Illness; and Management of Psoriasis. Perceptions about causation, illness identity, incurability and control were elicited and aware of the ability to influence their disease and to adopt proactive strategies (behavioural and cognitive) aimed at managing flares-ups. Although individuals differed in their perceived degree of control, control was largely related to managing symptoms as a way of returning to in remaining a remission phase.

Discussion: The findings provide support for Leventhal’s illness representation model including the recently revised dimension relating to treatment factors. Concepts within the category of control (Internal Control and Shared Control) suggest that models which make use of Chronic stress and the diurnal profile of free cortisol

A. CLOW, P.D. EVANS & F. HUCKLEBRIDGE, Psychophysiology and Stress Research Group, University of Westminster.

Recent advances in our knowledge of the diurnal pattern of the Hypothalamic Pituitary Adrenocortical (HPA) axis through sampling of active (free) salivary cortisol have been considerable. In this presentation, we shall review recent work in our laboratory relating to a number of issues important to researchers in the area of stress and health. We shall examine the consistency and reliability of diurnal and awakening measures of cortisol, and we shall present evidence as to whether these diurnal patterns are predictive of stress and health status. In particular we shall emphasise the pathological processes that are different across the day and attenuation of the normal pronounced acute cortisol response which follows immediately upon awakening.

Maternal occupational stress moderates salivary cortisol responses to daycare experience and school transition in children

J.M. TURNER-COBB, University of Bath, J.M. CHRYSSANTHOPOULOU, Centre for Research in Health Behaviour, University of Kent at Canterbury & D. JESSOP, Research Centre for Endocrinology, University of Bristol.

Background: The influence of maternal multiple role occupations on the neuroendocrine response has been largely unexplored. The aim of this study was to investigate psychosocial influences on hypothalamic-pituitary-adrenal (HPA) axis activity to include the role of maternal occupational stress.

Methods: Self-report questionnaire and salivary cortisol data were collected at baseline (T1) and at six-month follow-up (T2) in 67 mother-child dyads with pre-school age children (32 boys and 35 girls). Cortisol levels were assessed at 5:00 to 6:00 p.m. across two consecutive days and mean diurnal change in cortisol was calculated. Questionnaire data included child temperamental, family of origin and socio-economic status following vaccination in young, healthy adults. Perceptions of, and coping response to, stress were at least as important as objective life events and physiological reactivity to stress provides a potential mechanism of interaction.

Findings: Univariate analyses found lower secretion rates of sIgA to be associated highly significantly with greater stress, as measured by self-reported dissatisfaction over a number of life domains. Lower sIgA was also found to be significantly with greater reporting of symptoms of ill-health of all kinds. Multivariate analyses confirmed that these processes were robust with respect to control for demographic variables, smoking status, time of saliva sampling and interview, and current medication.

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Developing a quality of life measure for spousal carers of Huntington's Disease patients  
A. AUBEELUCK & H. BUCHANAN,  
University of Derby

Background: Huntington's disease patients require care that takes on the responsibility of caring for a family member affected with Huntington's Disease (HD) and more often than not, the primary carer role is both physically and mentally demanding as HD patients experience emotional changes which can cause stress and inconvenience to family members. This study describes the development of a self-report quality of life (QoL) measure for spousal carers of HD patients (HDoQoL-C). The underlying components of the HDoQoL-C are based upon Cummins’s (1997) ComQol-AS, a comprehensive and multidimensional quality of life measure designed for use with the general adult population.

Methods: The ComQol-AS was examined for its relevance to the QoL of spousal carers of HD patients through focus groups (N = 47), ratings questionnaires (N = 40) and ‘Photovoice’ (N = 5). New items were constructed and a disease-specific questionnaire was developed and further tested for psychometric properties on a sample of 100 HD spousal carers.

Findings: A one-way factorial ANOVA has shown that the ComQol-AS was relevant to HD spousal carers, a number of recurring themes e.g. genetic and financial issues were not fully addressed. Our newly developed HDQoL-C incorporates these issues into preliminary analyses demonstrates reliability and validity. Discussion: The collection of both quantitative and qualitative evidence is necessary for a HD specific QoL measure for spousal carers of HD patients. It is anticipated that once fully developed, the tool will be widely used as an outcome measure by which to judge the efficacy of interventions put into place to support these caregivers.

Self-help is not a therapeutic alternative: A survey of primary care mental health practitioners' views and behaviour  
K. AUDIN, H.L. BEKKER, M. BARKHAM, A. AUBEELUCK & H. BUCHANAN,  
University of Leeds & J. FOSTER,  
Counsellors and Psychotherapists in Primary Care.

Background: Addressing practitioners' attitudes towards self-help are fundamental to the implementation of these resources within routine care. Research aims to describe practitioners' use of and attitudes towards self-help; to identify the attitudes associated with the use of self-help with clients.

Methods: A cross-sectional postal survey of all registered members of Counsellors and Psychotherapists in Primary Care. Questionnaire informed by the Theory of Planned Behaviour assessing practitioners' demographic characteristics, use of and attitudes towards self-help.

Results: Response rate was 70 per cent (364/522), although 80 per cent (322/364) used self-help materials for clients. Only 16 per cent (59/364) believe self-help should be used without one-to-one counselling. Less than 20 per cent believed self-help would reduce the number of contact sessions. Consultation length. Use of self-help with clients perceived self-help increased clients’ insight of mental health problems, self-esteem and well-being. However, practitioners perceived clients needed high levels of motivation to use self-help, making it difficult to use. Practitioners' beliefs about the acceptability, purpose, and benefits of self-help, perceptions of clinical autonomy and endorsement from colleagues were associated with future use.

Discussion: UK practitioners view self-help as a resource to enhance the therapeutic encounter and not as a replacement for counselling. Practitioners are unlikely to support the use of self-help materials alone either as a routine therapeutic practice and/or part of a trial to evaluate self-help’s effectiveness. This application of self-help resources will not widen access to psychological treatment in primary care as outlined by the National Service Framework for Mental Health.

Acceptance and adaptive outcomes in asthma: Exploring the role of illness perceptions, treatment beliefs, social support and stress  
M. BARKER, Royal College of Surgeons in Ireland & J. WEINMAN, King’s College London.

Background: Using a self-regulatory framework this study aimed to identify factors related to preventive medication adherence in adults diagnosed with asthma. This study examines the role of illness representations, perceived social support, and perceived stress on adaptive outcomes, specifically health-related quality-of-life and symptom morbidity.

Methods: A cross-sectional design 62 community-based patients with asthma completed a battery of questionnaires consisting of the revised Illness Perception Questionnaire (Moss-Morris, Weinman, Petrie et al., 2002), a modified version of the Beliefs about Medicines Questionnaire (Horne, Weinman, Hankins, 1999), the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) and Social Provisions Scale (SPS) (Russell & Cutrona, 1984), the SF-36 (Ware, Snow, Kosinski & Gandek, 1993), and the Asthma Symptom Profile (Lehrer, Hochron, Isenberg et al., 1991).

Findings: Non-adherence to preventative medication was associated with perceived symptoms of inhaler usage, as well as with more general concerns about treatment and these perceptions had a bearing on the effectiveness of the medication. Analysis of factors related to health-related quality-of-life and symptom morbidity through logistic regression models, illness representations, perceptions of stress and social support were directly related to these outcomes whereas adherence was not.

Discussion: The present study highlights the critical role that cognitive factors play both in determining adherence to preventive medication and adaptation to a chronic condition such as asthma. The findings have theoretical implications in terms of extending the self-regulatory model to incorporate beliefs other than those pertaining to illness; it also has practical implications for the design of self-management interventions to improve adherence and adaptive outcome in asthma.

Perceived parenting self-efficacy (PMP S-E) of mothers who are breastfeeding hospitalised pre-term neonates: implications to health care  
C.L. BARNES & E.N. ADAMSON-MACEDO, University of Wolverhampton.

Background: Self-efficacy is acknowledged as one of the strongest predictors of health behaviours and it may play an important role in facilitating breastfeeding of preterm babies. Although it is recognised that breastfeeding is best for babies’ health, the incidence of breastfeeding by mothers of preterms is low. This study tests the hypothesis that the perceived parenting self-efficacy (PMP S-E) of mothers who are breastfeeding their preterm hospitalised babies is lower than their non-breastfeeding counterparts.

Methods: A between subjects design was used; 50 mothers (25 in each group) of relatively healthy pre-term babies were recruited from West Midlands hospitals. Criteria for inclusion were: birthweight <2.5 kg, gestational age <37 weeks, without neonatal period and no congenital malformations. The Perceived Maternal Parenting Self-Efficacy (PMP S-E) Likert-type scale previously validated by the authors was used; it comprised 20 items items.

Findings: A one-way factorial ANOVA has shown that PMP S-E was significantly lower in mothers who were breastfeeding hospitalised babies (p < 0.001), as predicted; gestational age (GA) was used as a covariate and ANCOVA results suggested that the variance in maternal self-efficacy scores is independently explained by breastfeeding (F(1,49) = 4.21; p < 0.04).
Discussion: Breastfeeding a preterm baby appears to act as mediator on how the mothers perceived getting self-efficacy within a hospital. These mothers appear to need more support in the areas of caregiving procedures, evokes changes in their babies’ behaviour, reading their babies’ signalling and situational issues. These findings have implications for Neonatal Health Psychologist’s practice and research, particularly with regard to the facilitation of breastfeeding.

Communicating information about medicines: The ‘benefits’ of a benefit statement

E. FERRERELLI & D.C. BERRY, University of Reading.

Background: Social cognition models suggest that perceived risk and benefit are key factors in determining health behaviours. Previous research has shown that providing health information about medication side effects can have detrimental effects on people’s perceptions and intended health behaviours. The present study examines the effects of providing written information about a medication’s benefits. Experiment 1 looks at whether the benefit information offsets negative effects of side effects information. Experiment 2 examines the effects of benefit information alone.

Methods: Two factor between-participants designs were used: With /without benefit statement, with/without side effects information. (Experiment 1): With/without benefit statement, mild/severe benefit (Experiment 2).

Participants and procedure: Participants (N1 = 188, N2 = 454) were given a written hypothetical scenario where a fictitious antibiotic, which included a side effect profile and a benefit statement was prescribed, and were then told they would be dropdown being diagnosed with an acute infection and being prescribed this fictitious antibiotic, which included the manipulated explanation.

Measures and analyses: Six-point Likert ratings scales of satisfaction, perceived risk, perceived benefit, and intention to comply, and multivariate analyses were used.

Findings: Experiment 1 showed that inclusion of a benefit statement did not affect perceived risk but did positively affect intention to comply, when adding benefit information. Experiment 2 showed that a benefit statement by itself had a positive effect (regardless of illness severity) on perceived risk but did not affect intention to comply.

Discussion: Both experiments showed beneficial effects of adding benefit information about a medicine’s benefits, particularly for offsetting the negative effects of side effects information.

Developing a questionnaire measure of holistic treatment beliefs: An internet-based pilot study

F.L. BISHOP, L. YARDLEY & G. LEWITH, University of Southampton.

Background: Holistic beliefs about treatment are related to complementary and alternative medicine (CAM) use. A comprehensive measure of such beliefs is needed to facilitate investigations of the role of different treatment beliefs in health care. The purpose of this study was to develop a comprehensive, generic questionnaire measure of beliefs about treatment in the context of CAM use that could be used in the Holistic Treatment Beliefs Questionnaire (HTBQ).

Methods: HTBQ items were developed from a review of existing research on why people use CAM. An internet-based pretest HTBQ was constructed and advertised through health-related websites. The online questionnaire also included the previously validated HTBQ (Hyland, Lewith & Westoby, 2003) and a measure of CAM use. Three-hundred-and-twenty-eight completed questionnaires were received.

Results: Exploratory factor analysis suggested a three-factor solution. Three factors were extracted using Principle Axis Factoring with Direct Oblimin rotation. Based on these factors, three subscales were developed measuring beliefs about natural treatment, participation in treatment and holistic health. The internal consistency of the subscales was acceptable (Cronbach’s alpha ranges from 0.68 to 0.75). The criterion validity of the HTBQ was acceptable: High users of CAM scored significantly higher on all HTBQ subscales than low users of CAM. Correlation between the HTBQ and the HCAMQ further demonstrated the validity of the HTBQ.

Conclusion: The HTBQ measures three dimensions of beliefs about treatment with acceptable validity and reliability. The HTBQ could be particularly useful for research seeking to clarify the relative importance of treatment beliefs in explaining why people use CAM.

Risk perception and fuzzy sets

S.L. BROWN & A. MORLEY, Dept. of Psychology, University of Reading.

Background: This study investigated recent claims that individuals perceive the likelihood of negative health consequences in terms of a fuzzy set, rather than the single estimates used in traditional risk perception scales. We also investigated whether comparative optimism can be partly explained by the use of fuzzy sets.

Methods: Using an independent groups design, participants were asked to rate the likelihood of eight harmful outcomes. These outcomes were presented on an unmarked semantic differential scales. Single estimates were compared to two responses representing the upper and lower bounds of a set described as ‘realistic probability’.

Findings: For the midpoints of the bounded sets as were strongly predictive of AUDIT scores as single estimates (the AUDIT is a predictor of alcohol dependence and harm). They were also better predictors of self-reported worry and fear about the consequences of drinking and intentions to reduce drinking. Compared to single estimates, analyses using the midpoints of bounded sets showed that comparative optimism was significantly reduced, but still exists.

Discussion: Our findings suggest that people appear to use a fuzzy, rather than a literal, representation of outcome likelihood when they make decisions about health endangering behaviours. This is partly responsible for comparative optimism. Theoretical and practical implications are discussed.

Reliability and validity of a computerised dental anxiety scale for children and adolescents: The Smiley Faces Programme

H. BUCHANAN, University of Derby & N. NIVEN, University of Derby.

Background: To provide further reliability and validity data on a computerised dental anxiety scale for children and adolescents using faces as a response set (the Smiley Faces Programme: SFP).

Methods: The SFP was completed by 464 children and adolescents (range – 6 to 15 years; mean age 10.8 years). For validity purposes, 241 participants also completed two other children’s dental anxiety measures (the Modified Child Dental Anxiety Scale and the Dental Fear Survey). For test-retest purposes 100 of the participants completed the SFP two weeks later.

Findings: The SFP demonstrated good internal consistency (α = 0.8), test-retest reliability was good (r = 0.8, p < 0.001) and significant moderate correlations were found between the SFP and the Modified Child Dental Anxiety Scale (r = 0.6, p < 0.001). The local anaesthetic and drill were the most anxiety-provoking items.

Discussion: This study suggests that the SFP is a valid and reliable measure for assessing children and adolescents’ dental anxiety and may help encourage dentists to formally assess dental anxiety.

Developing a theory of quality of life in patients with an Implantable Cardioverter Defibrillator

J. BURKE, Staffordshire University, C. HALLAS, Harefield Hospital, D. WHITE, Staffordshire University, N. NIVEN, University of Wales, C. CORNELLY, Cardiothoracics Centre Liverpool NHS Trust.

Background: The implantable cardioverter defibrillator (ICD) is an invasive device which terminates potentially fatal ventricular arrhythmias by delivering a high-energy shock to the heart. ICD implantation has been associated with poor psychosocial functioning (Sears & Conti, 2002), however, the cause of this remains unclear. The current study employed grounded theory methodology in order to develop a theory of quality of life for ICD recipients.

Method: Semi-structured interviews were conducted with 13 ICD recipients selected through theoretical sampling at regular ICD check-up clinics. Data collection was guided by the principles of grounded theory. Initially, keywords, themes and phrases were identified from interview transcripts, and associated to form categories through open and axial coding. Constant comparison techniques were employed in the development of concepts and higher order categories. These categories were meaningfully integrated about a core category.

Findings: Perceived control emerged as the core category. Biographical factors, the experience of cardiac illness, illness interpretation, coping strategies and social integration all emerged as subcategories, which contributed to the relationship with perceived control over the illness and its treatment.

Discussion: Experimental factors directly to the ICD and its therapy were not the most significant factors in determining quality of life. The modest impact of the ICD and the emergence of ‘perceived control’ as the primary category in the theory has important implications for the development of psychological intervention programmes aimed at improving quality of life for ICD recipients.

Secondary prevention of Coronary Heart Disease: Illness and treatment beliefs as determinants of health-related behaviour

M. BYRNE, Dept. of Psychology and General Practice, NUI, Galway, J. WALSH, Dept. of Psychology, NUI, Galway & A.W. MURPHY, Dept of General Practice, NUI, Galway.

Background: Leventhal’s self-regulatory model has been successfully used as a framework for predicting health-related behaviour among patients from a range of chronic illness groups. The aim of the present study was to examine, among a sample of patients with established Coronary Heart Disease (CHD), the relationship between patients’ illness perception and treatment beliefs, and their secondary preventive behaviour, including smoking, exercise, diet, alcohol consumption and medication adherence. Methods: Medical and demographic data were gathered from the medical charts of 1,611 patients with established CHD from 35 randomly selected general practices in the West of Ireland. Data on patients’ illness perceptions and medication beliefs, as well as self-report data about patients’ lifestyles were provided from postal questionnaire (1084 patients responded; 69 per cent response rate).

Findings: The value of patients’ beliefs in predicting secondary preventive behaviour was examined using hierarchical linear regression and sequential logistic regression. Illness perceptions appeared to be only weak predictors of smoking, exercise, diet, alcohol consumption and medication adherence, accounting for about two per cent of the variance in these behaviours. Of the illness perceptions of control, a higher perception of disease severity and a lower level of disease-related anxiety were related to more positive behavioural outcomes. Medication beliefs were quite strong predictors of medication adherence, accounting for about nine...
The Clinical utility of Social Cognition models is limited by their inability to explain how decisions relating to health are affected by the socio-political context of health care. Research generated by critical approaches fleshes out the complexity of such decisions. A number of practical implications issue from seeing medication taking behaviour in this way. These include the development of prescribing guidelines and working with feelings of guilt and blame in those individuals whose treatment fails.

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Achievement motivation, optimism, psychological well-being and self-rated health: Some longitudinal data

T. CASSIDY, Thames Valley University.

Background: To investigate the relationship between home background, achievement motivation, optimism, psychological well-being and self-rated health.

Methods: Participants were assessed at age 16 and again at age 23 on a range of aspects of home and social background, crowding, social support, cognitive and parental encouragement. In addition they completed measures of IQ, achievement motivation, optimism, psychological well-being and health.

Findings: Support is strong for predicting previous exercise behaviour.

Discussion: It is suggested that achievement motivation and optimism are contributing factors in the development of vulnerability/resistance to life stress and that they mediate the effects of home and family background.

Taking responsibility: Clinical applications of critical approaches to pill taking behaviour

P. CHADWICK, Cancer Research UK Health Behaviour Unit, UCL & A. KOCSIS, Clinical Health Psychology, St. Mary's Hospital, London.

Background: Critical approaches to health psychology may have limited appeal because of their tendency to question traditional approaches without offering constructive alternatives. However, insights generated by critical qualitative research can enrich traditional understandings of health phenomenon and generate practical clinical strategies on a number of different levels. This paper provides an example of the practical implications of a material-discursive approach to understanding non-adherence to HIV drug therapy.

Methods: A material-discursive perspective was used to analyse transcripts of interviews with eight gay men who had experienced significant phycological renewal through antiretroviral therapy.

The analysis focussed on education the meaning of prescribed medication taking and the social cognitive processes of 85 women in forming their intention to take the pill. The findings of this study are discussed in relation to future research and practice.

Predicting exercise in Chinese adolescents: The Theory of Planned Behaviour (TPB) versus the Transtheoretical Model of Change (TTM)

P. CALLAGHAN, City University & P. NORMAN, University of Sheffield.

Background: The aim of this study was to determine how well the TPB and the TTM explained exercise behaviour in Chinese adolescents.

Methods: A longitudinal design was used to analyse transcripts of interviews with eighty gay men who had experienced significant psychological renewal through antiretroviral therapy.

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Background: To investigate the relationship between home background, achievement motivation, optimism, psychological well-being and self-rated health.

Methods: Participants were assessed at age 16 and again at age 23 on a range of aspects of home and social background, crowding, social support, cognitive and parental encouragement. In addition they completed measures of IQ, achievement motivation, optimism, psychological well-being and health.

Findings: Analysis of the data, using path analysis, shows that economic advantage and parental encouragement predict optimism, achievement motivation, psychological well-being and self-rated health.

Discussion: It is suggested that achievement motivation and optimism are contributing factors in the development of vulnerability/resistance to life stress and that they mediate the effects of home and family background.

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Parenting and compliance in young children with diabetes
V. CHISHOLM, C. DONALDSON, Queen Margaret University College, Edinburgh, L. ATKINSON, Child Psychiatry Programme, Centre for Addiction and Mental Health, Toronto & University of Toronto, A. PAYNE, Glasgow Caledonian University, C. KELNAR & K. NOYES, Royal Hospital for Sick Children, Edinburgh.
Background: The incidence of insulin-dependent diabetes is increasing in younger children and their health is dependent on compliance with an intensive management plan. The fact that parents must contend with distinctive developmentally-specific caretaking challenges, most paediatric compliance research concerns adolescence. The objective of this study was to investigate maternal strategies for promoting cooperation with the treatment regimen in four- to eight-year-old children with type 1 diabetes.
Methods: We recruited 50 children and their mothers from the Diabetes Clinic at the Royal Hospital for Sick Children in Edinburgh. We used assignments from the developmental, diabetes and clinical psychology literature. We videotaped mother and child solving a problem related to the diabetes, and then sat separately and conducted an interperson transaction analysis of their socioaffective and cognitive features.
Findings: All measures of parenting stress were significantly correlated with psychological adjustment problems in the child. In addition, parenting stress measures were associated with a variety of child adjustment problems. These included: (1) associations with biometrical indices of health status and with children’s dietary behaviour and the presence of sweets, and (2) problems concerning individual adjustment (e.g. self-efficacy concerns) and relationship (e.g. child rearing and discipline) issues; and (3) problems implementing the treatment regimen (e.g. conflict over food).
Discussion: Findings from different sources confirm the importance of the interpersonal context in which diabetes is managed and associated with outcomes in the young child which are critical for optimal disease adjustment. Findings also demonstrate that parenting research provides a useful analytic framework for understanding the factors involved in promoting young children’s cooperation with the treatment protocol.

The pregnancy experience of methadone-maintained women
Despite recent enhancements in healthcare staffing priorities for drug-using pregnant women, a dearth of relevant research precludes strong evidence-based practices. There is a clear need for further research to inform and educate those working with this population (Hutchins & Dipietro, 1997; Kettinger et al., 2000; Pows et al., 2000) and, furthermore, for research which moves away from the descriptive to take account of the subjectivity of the women’s experience (Barclay, 1997). This study describes preliminary findings from a longitudinal study investigating the pregnancy and early parenthood experience of women who have a history of drug use and who are managing their addiction through the use of prescribed methadone. In particular, the study seeks to identify the women’s perceptions of their changing healthcare, support and social needs during this transition period. Semi-structured interviews were carried out with 20 methadone-maintained women during their first trimester of their pregnancies. Interviews were guided by the participants themselves and were analysed according to grounded theory using open line by line coding. Three categories of ‘consciousness’ emerged describing the women’s motivation as a result of the pregnancy to identify, sustain and reinforce their trajectory and the problems they had already experienced in their lifestyles. Integrated and encapsulated within this category and representative of this consolidation process were concepts identified as ‘reflection’, ‘self-assessment’, ‘acceptance’, ‘identity’, ‘planning’ and ‘hope’. The analysis provides the basis of a needs assessment for methadone-maintained women experiencing pregnancy and will enable the development of appropriate and informed strategies for healthcare and drug service delivery.

Factors influencing the effectiveness of a group intervention for smoking cessation
C.C. CHRYSSANTHOPOLOU, D. SHAH-ARMON & V. SAUNDERS, Specialist Smoking Cessation Service, Hillingdon Primary Care Trust.
Background: The Specialist Smoking Cessation Service at Hillingdon Hospital provides a seven-week treatment programme for individuals who are wishing to quit smoking. We have used a withdrawn-oriented therapy for smoking (Hajek, 1989). The present study aimed to determine which factors, if any, influenced the effectiveness of this intervention. The factors examined were nicotine dependence, motivation to quit, motives for smoking, and socio-demographic characteristics.
Methods: The research is based on 637 smokers who joined the programme between August 2000 and February 2003. Nicotine dependence, motivation to quit, motives for smoking and socio-demographic characteristics were treated as the independent variables and were assessed prior to the first session through self-report questionnaires. The dependent variable was four-week abstinence measured via carbon monoxide levels in expired breath.
Findings: No significant differences were found between successful quitters (N = 343) and non-quitters in terms of nicotine dependence and socio-demographic characteristics. Significant differences emerged with respect to motivation to quit and motives for smoking. Successful quitters reported higher levels of motivation to quit [1 (635) = -2.31, p < 0.01] and were less likely to report boredom as a motive for smoking [1 (635) = 2.33, p < 0.01] compared to those who were unsuccessful.
Discussion: Results corroborate previous research documenting the crucial role of individuals’ motivation in increasing the efficacy of group interventions for smokers. Furthermore, findings highlight the role of motivation as a predictor of relapse and underscore the importance of considering the psychological motives for smoking initiation and maintenance in future psychosocial interventions for smokers.

Prevalence of sexual and physical abuse in women with fibromyalgia: A community-based study
Background: Previous studies of sexual and physical abuse in fibromyalgia (FM) have relied on either cold (caretaking) or non-personal samples. In this study we rely on a community sample of women to test the hypothesis that women with FM are more likely to have PTSD than women without FM.
Methods: Eligibility was limited to women already enrolled in a community study of FM. In the earlier study, women were phenotypically examined for FM and interviewed to determine if they had major depressive disorder (MDD). A total of 52 female participants, 45 in the FM group and 7 in the control (no FM) group. Sexual and physical abuse were assessed using standardized questionnaires.
Findings: Women who reported a history of rape were 3.1 times more likely to have FM than women who did not (p < 0.5). Other forms of sexual and physical abuse were reported equally often by FM and Control participants. Childhood abuse was not reported more often in the FM group. Women with FM were more likely to have PTSD (p < 0.01). When PTSD was included in a regression model to ‘predict’ FM, the increase in risk due to self-reported rape was reduced from 3.1 to 1.7 (p = NS).
Discussion: With the exception of rape, no self-reported sexual or physical abuse event was associated with FM in this community sample. In accord with the trauma literature, PTSD was more prevalent in the FM group. Chronic stress in the form of PTSD but not MDD mediated the relationship between rape and FM.

Lifestyle self-management intervention in patients with Type 2 diabetes
M. CLARK & S.E. HAMPSON, Dept. of Psychology, University of Surrey.
Background: Lifestyle and behavioural factors play an important role in the development of Type 2 diabetes and management of this chronic illness involves a combination of medication and lifestyle change. However, lifestyle change is often the most difficult and challenging aspect of care for both patients and health care professionals.
Aims: To develop, implement and evaluate in a randomised controlled trial a brief intervention to improve lifestyle self-management in patients with Type 2 diabetes.
Method: 100 patients with Type 2 diabetes, aged between 40 to 70 years completed assessments at four time points, baseline, three months, six months and one year. Intervention participants also received follow-up telephone calls at one week, three weeks and seven weeks post-initial assessment.
Findings: Results at six and 12 months follow-up suggest that the intervention was successful in helping patients in the intervention group to reduce their fat intake and increase their lifestyle physical activity levels. These self-reported changes in behaviour were reflected in the objective data with increased physical activity. Those with fewer comorbid diseases at baseline, higher baseline scores on physical activity self-management and greater self-confidence in abiding physical activity and education, fewer comorbid diseases at baseline, higher baseline scores on physical activity self-management and greater self-confidence in adhering to the treatment programme, and those with fewer comorbid diseases at baseline showed less improvement on changing fat intake habits, as did participants who regarded their diabetes as less serious and did not believe in the importance of diabetes self-management. Higher HbA1c was related to lower baseline scores on dietary self-management and higher baseline barriers to healthy eating.
Discussion: These results will be discussed in terms of implications for practitioners and the development of future intervention programmes for this patient group.

Comparison of patients and health care professionals’ beliefs about and attitudes towards Type 2 diabetes
M. CLARK & S.E. HAMPSON, Dept. of Psychology, University of Surrey.
Background: Understanding the behaviour of people with diabetes is important if we are to increase our knowledge of their beliefs and attitudes towards diabetes and its treatment. Attitudes to diabetes also influence the behaviour of health care professionals. The investigation of attitude differences in beliefs and perceptions of diabetes, and the relationship between diabetes and eating behaviour, is an important task. This study examines beliefs about and attitudes towards diabetes of health care professionals and patients with diabetes, and explores discrepancies in those attitudes, which may act as barriers to effective diabetes care and therapeutic outcomes for patients with Type 2 diabetes.
Method: 104 primary health care professionals (nurses, dietitians, general practitioners) and 100 of their patients with Type 2 diabetes completed the Diabetes Attitude Scale – third version (DAS-3). Health care professionals also completed a questionnaire related to their provision of diabetes care.
Findings: Doctors were less supportive of the
Handwashing practices in catering establishments: Using the theory of planned behaviour in an organisational context

D. CLAYTON, University of Wales Institute Cardiff, C. GRIFFITH, University of Wales Institute Cardiff & P. PRICE, University of Wales, College of Medicine.

Background: Previous research indicates that handwashing is of critical importance in preventing food-borne disease outbreaks from catering establishments. Despite evidence that handwashing is neglected in food businesses, very little research has investigated the determinants of caterers’ handwashing practices. Therefore, this study was aimed at determining whether caterers’ implementation of adequate handwashing practices could be predicted by the constructs of the Theory of Planned Behaviour (TPB).

Methods: 115 participants from 29 catering businesses took part in the study. Each participant completed three occasions for a total of 270 food preparation actions. Participants completed a questionnaire designed to measure constructs of the first TPB. The data was assessed using MEANS and REGRESSION to discover key factors for implementing adequate handwashing practices in the catering industry.

Findings: Results showed a lack of and/or inadequate implementation of handwashing at critical points. All food handlers in this study were trained in food hygiene and yet none of the food handlers demonstrated handwashing at the appropriate occasion. Intentions and perceived behavioural control constructs were significant predictors of handwashing malpractices (p < 0.01). Differences in handwashing between participants were not significant.

Discussion: Implications for designers of training and research findings that there is no positive organisational context. Results support previous data regarding the applicability of the TPB in predicting initiation in this group. The Theory of Planned Behaviour in an organisational context was useful in predicting handwashing in the catering industry.

Implementing best breastfeeding practice in midwifery: Using interpretative phenomenological analysis to discover key factors

M. COOK, University of Leeds, L.M. WALLACE, Coventry University & R. SHAW, Leicester University.

Background: Quality is a principal concern of current National Health Service (NHS) policy (Department of Health, 1997). Currently, far more is known about what constitutes best practice in most areas than is known about how to change hospital policy and professionals’ behaviour in accordance with it. The British Psychological Society for Reviews and Dissemination (1999) reviewed the literature on getting evidence into practice. Their recommendations included conducting a local diagnostic analysis, piloting change strategies, and having discrete dissemination, implementation and maintenance strategies.

Methods: In the first T4P, 46% of participants were presented with information on the benefits of breastfeeding. They were then given a recognition memory test based on this information. The second study was based on N = 94 participants. Participants were asked to rate their intentions to exercise on either a bipolar (0–10) or bipolar (−5 to +5) scale. Previous research has shown that ratings on bipolar scales are significantly higher than those on unipolar scales.

Findings: A hierarchical regression demonstrated that intention stability affected participants’ performance on the recognition memory test. Participants with more stable intentions had significantly better recognition memory than participants with less stable intentions. For the second experiment, there was an interaction between intention stability and condition: Participants with more stable intentions gave significantly higher ratings on bipolar and unipolar scales. In contrast, participants with less stable intentions gave significantly higher ratings in the bipolar condition, than in the unipolar condition.

Discussion: The present research shows that intention stability affects participants information processing. This finding suggests that health interventions could usefully employ measures of temporal stability to ensure that the intervention is targeted at those who are most likely to benefit.
treatment beliefs are independently associated with treatment adherence. We set out to develop and evaluate a questionnaire that provides a valid, reliable measure of patients’ beliefs about the role of CR in recovery from AMI. We hypothesised that CR beliefs may help to identify potential non-adherers.

Methods: Questionnaire items were generated from literature and semi-structured interviews with patients. The questionnaire was prospectively evaluated in 130 patients with AMI (82.4 per cent (104) male, mean age 58.4 years (SD 10.67)). Principle components analysis was conducted with varimax rotation. Independent samples t-tests and logistic regression were used to determine discriminant validity.

Findings: Five factors were produced, accounting for 65.5 per cent of variance. Four factors were significantly related to the necessity of CR (a.71), concerns regarding exercise (a.79), practical barriers (a.70), suitability (a.74). CR attenders were more likely to feel CR was necessary and to understand its role than non-attenders (17.69 (SD 2.72) vs. 16.89 (SD 3.03) p = 0.029). Patients expressing concerns about exercise and reporting practical barriers to attending CR were more likely to feel CR was necessary (p = 0.007). Patients expressing concerns about exercise and reporting practical barriers to attending CR were more likely to feel CR was necessary (p = 0.007) than non-attenders (17.69 (SD 2.72) vs. 16.89 (SD 3.03) p = 0.029). Patients expressing concerns about exercise and reporting practical barriers to attending CR were more likely to feel CR was necessary (p = 0.007) than non-attenders (17.69 (SD 2.72) vs. 16.89 (SD 3.03) p = 0.029). Patients expressing concerns about exercise and reporting practical barriers to attending CR were more likely to feel CR was necessary (p = 0.007) than non-attenders (17.69 (SD 2.72) vs. 16.89 (SD 3.03) p = 0.029).

Discussion: Beliefs about CR can be meaningfully quantified and could be used in intervention studies to optimise CR attendance.

Changes in symptom experiences over time predict adherence to highly active antiretroviral therapy (HAART): Results from a prospective study

V. COOPER, G. GELLAITRY, M. HANKINS, Centre for Health Care Research, University of Brighton, M. FISHER & R. HORNE, Brighton & Sussex University Hospitals NHS Trust.

Background: HIV-positive individuals taking highly active antiretroviral therapy (HAART) are required to maintain an unprecedented level of adherence to ensure clinical benefit and prevent viral resistance. Despite the sub-optimal rates of adherence prevalent, we tested the hypothesis that changes in patients’ experiences of symptoms over time impact on adherence and adherence perceptions.

Methods: As part of a prospective study, consecutive patients (N = 65) completed validated questionnaires assessing the type and severity of symptoms they attributed to HIV and those they attributed to HAART, perceptions of HIV and HAART and adherence. Assessments were repeated at baseline and six months after starting HAART and after one and six months of treatment.

Findings: Participants who perceived an improvement in HIV-related symptoms between baseline and six months reported higher adherence at six months (p < 0.05). Similarly, those who perceived an improvement in HAART related side effects between one and six months were more adherent at six months (p < 0.05). Results are consistent with a causal relationship, since improvement of symptoms was not predicted by earlier adherence (p > 0.1). Those reporting an improvement symptom profiles or side effects had more positive perceptions of HIV and HAART (perceived fewer and more consistent symptoms, fewer negative consequences, more control, fewer new emotional representations, and were more convinced of their personal necessity for HAART and had fewer concerns) after six months of treatment. All relationships were significant at the five per cent level.

Discussion: These findings are consistent with an extended regulatory model, wherein symptom experiences guide adherence and influence perceptions of illness and treatment.

The development of a self-management programme for patients with Ulcerative Colitis


Background: To develop a self-management programme for patients with ulcerative colitis (UC).

Methods: Colitis patients in North Tyneside were invited to focus groups to consider educational and support needs. Further, an analytic regression was used to analyse meeting transcripts to identify themes. An education programme was devised to address these themes, and a facilitator-centred approach was tested. The self-efficacy model provided a theoretical basis to promote behaviour change. Patients attending local hospitals with a poor quality of life, self-rated using the inflammatory Bowel Disease Questionnaire, attended the programme. Reflectionary diaries were written by facilitators and observer noted on the first working day after each meeting. These were assessed using framework analysis.

Findings: Two groups were observed. Three observation methods were used: recording to calculate the proportion of time facilitators, patients and relatives spoke, Bales’s interactive Process Analysis to identify dominant, and friendly individual’s, and an ethological method.

Discussion: Participants identified their learning goals but needed to review these during the programme. Individuals felt generally friendly and positive towards the tasks used to achieve their learning goals. They felt able to share their experience with others. Initially group exercises and worksheets took too long to complete, and were revised to allow group members more opportunity to reflect and compare experience. The use of self-contraction was less successful in the early sessions.

Conclusion: Early resistance to self-contraction could be explained in terms of the transtheoretical model of behaviour change, or prior expectations of passive learning. A more subtle approach to contracting was employed in the second group.

A thematic analysis of postings to an online bulletin board for individuals coping with Irritable Bowel Syndrome

N. L. COULSON & H. SEMPER, University of Derby, Derby.

Background: The growth of internet access has created new opportunities for people with health-related concerns to engage in supportive communities. This study explored a network of individuals coping with similar problems. The aim of this study was to examine the content of messages posted to an online bulletin board used specifically by individuals living with Irritable Bowel Syndrome (IBS).

Methods: This was a qualitative retrospective study of 414 postings made to an online bulletin board over a period of four months (February to May, 2003) using thematic analysis.

Findings: The main key themes were symptom interpretation; diagnosis; interaction with the health-care system; treatment decisions; coping and social support.

Discussion: This data reveal the online bulletin board to be a rich and valuable source of information and support to individuals living with IBS. Support received in the forum can be used to facilitate the processes of symptom interpretation through the sharing of experiences and knowledge transfer and underpinning the adjustment of IBS symptoms. Moreover, the data suggest that the information gathered from the bulletin board influenced their interaction with the health care system. In addition, the data provide support for specific tests, medications. Finally, the provision and receipt of social support was evident in the majority of postings, with informational and emotional support being the most common types expressed. In conclusion, the use of the bulletin board appeared to be an integral part of the coping process.

Expressing distress: A qualitative study of the experience of written emotional disclosure

R. CROCKETT, King’s College London, S. MICHEL, University College London & J. WEINMAN, King’s College London.

Background: Written emotional disclosure has been found to have a variety of benefits for a range of types of people. Although extensively studied at a nomothetic level, the processes at work have not been studied at an idiographic level. Therefore, to further the understanding of these processes, a qualitative study of participants’ experiences of written emotional disclosure was conducted.

Methods: The writing intervention was implemented with a group of seven pre-reception house officers (PRHOs) whom, research suggests, experience high stress levels. Semi-structured interviews were then conducted, transcribed and analysed using Interpretative Phenomenological Analysis.

Findings: Four themes were identified: the initial responses to the writing, the experience of writing, the function of the writing, and the context of the writing. A super-ordinate theme of the self was also identified as linking the data. This theme was expressed in a tension between the individual’s sense of their needs, the demands the intervention made on the individual and the benefits it was perceived to offer. The study also found that the individual’s characteristics, as well as situational factors influenced the participants’ response to the writing intervention.

Conclusions: The study found support for each of the pathways, cognitive, emotional and behavioural, that have been suggested to account for the health effects of written emotional disclosure. In addition the study suggests that, if written emotional expression is to be used as an intervention, the particular characteristics of the individual and their situation need to be taken into account.

Choroid Plexus Cysts (CPC): The best way to terrify a pregnant woman? A pilot study to assess the long-term adjustment of mother following a false positive soft-marker screen during prenatal ultrasonar screening

J. CROTON, J. HEWISON, L. DYE, School of Psychology, University of Leeds & G. MASON, Leeds General Infirmary.

Background: The psychological consequences of ultrasonar screening has been under-investigated to date. The use of ultrasound technology means that the unborn child is scrutinised more than ever before. This pilot study investigated the effects of how new technologies impact on the long-term psychological well-being of women, specifically false positive soft marker screens. It also assessed the feasibility of using standardised psychological measures with this specific population.

Method: Women who had a CPC diagnosed on prenatal ultrasound scan (three years previously) and who went on to have a healthy infant were selected (N = 9) and matched with women who had a normal scan (N = 9). Women were matched by age, parity and expected date of delivery. All women completed a standardised battery of questionnaires. These included standardised psychological measures for example the STAI, GHQ28, Parenting Stress Index and the CBCL 1/1/2 – 5. Women’s retrospective self-report was examined.

Findings: Preliminary exploratory analysis revealed several important findings. CPC women reported more negative words about their screening experience. They also scored higher on several of the psychological measures. All the women reported completing the questionnaire without any difficulties.
Discussion: These results suggest that CPC women may feel differently to controls about their screening experience. The implications of these results will be discussed, as well as their significance for evidence-based practice.

Factors contributing to patient satisfaction with hospitals and private clinics in Greece

T. DALLAS & C. ERTUBEY, University of Luton.

Background: This study investigated patient satisfaction in the Greek health system using seven detailed items of interest to a patient about various aspects of the relationship between patient, doctor and the health system.

Methods: 15 patients (mean age 48 years) were randomly chosen from the outpatient department of the General Peripheral Hospital of Ioannina (Ss 12, mean age 54) and from a private clinic (mean age 45) in Greece respectively. Interviews took place while they were attending the hospital.

Findings/Discussion: Overall satisfaction with the treatment received in both hospitals. There were more similarities than differences between the two groups of patients. When patients were asked about their satisfaction with doctors, the doctor-patient relationship the two groups differed in their expectations. State hospital patients expected improved health from the consultation procedure, both of which are predominately problems of state hospitals. Consequently, the needs of the increasing number of patients who remain in the system need to be targeted. There is a lack of studies exploring interventions that may target the 301


dissatisfaction with the consultation procedure. The explanations of dissatisfaction with the organisation of the system and the bureaucratic procedures, both of which are predominately problems of state hospitals. Interestingly, although the state hospital patients faced more problems they were generally more satisfied with their system compared to the private clinic due to the need that the state hospital patients were mostly older and poorer and possibly felt more obligated to the state system, whereas private hospital patients were relatively younger, wealthier and were paying quite a lot for the services they received.

Comparison of the acute effects of 10 minutes of moderate intensity exercise and 10 minutes of a cognitive distraction task on desire to smoke and nicotine withdrawal symptoms in sedentary smokers

J.Z. DANIEL, M. CROPLEY, University of Surrey, M. USSHER, St. George's Medical School, University of London & C. FIFE-SCHAW, University of Surrey.

Background: Previous research has suggested that a short bout of moderate intensity exercise is effective at producing transient reductions in nicotine withdrawal symptoms and desire to smoke in sedentary smokers. An unresolved issue concerns the mechanism responsible for this effect. It is not entirely clear why the reductions in tobacco withdrawal symptoms are due solely to the effects of exercise or by individual differences in the approach that smokers use during exercise. This study was conducted in order to address this issue.

Methods: 40 sedentary smokers attended a laboratory session and were allocated to one of four conditions: 15 minutes of moderate intensity exercise on a stationary cycle ergometer; 15 minutes of moderate intensity exercise on a stationary cycle ergometer with attention on a stationary video game; 15 minutes of moderate intensity exercise on a stationary cycle ergometer with attention on a stationary video game and a cognitive distraction task condition. All participants rated their desire to smoke and withdrawal symptoms at baseline (at five and 15 minutes of resting), immediately after the exercise period and at the end of the video game condition (5 minutes post-task).

Findings: Using Greenhouse-Geisser epsilon calculations there was a significant group by time interaction between the exercise and cognitive conditions on several items, including desire to smoke a cigarette (F(3,499,132.9)=17.2, p < 0.001) and nicotine withdrawal (F(3,669,139.4)=14.5.p < 0.001). Post-hoc analysis revealed that ratings of symptoms during and directly after exercise were significantly reduced from baseline in the exercise condition (p < 0.001), but not for the cognitive distracter condition.

Discussion: The cognitive distracter alone is not sufficient to produce reductions in withdrawal, thus distraction as a possible mechanism for the effects observed here and elsewhere may be weak, and as such other potential theories need to be investigated.

Exploring the information needs of patients with malignant melanoma at an outpatient clinic

C.J. DARWIN, L.B. MYERS, University College London, S. AYERS, St. George's Hospital Medical School & S. MICHIE, University College London.

Background: The number of people with malignant melanomas has increased. Melanomas are often diagnosed at an advanced stage and require considerable treatment, thus patients need to be informed of their diagnosis, the treatment options available, and the outcomes of treatment. Consequently, the needs of the increasing number of patients who remain in the system need to be targeted. There is a lack of studies exploring interventions that may target the dissatisfaction with the consultation procedure. The explanations of dissatisfaction with the organisation of the system and the bureaucratic procedures, both of which are predominately problems of state hospitals. Interestingly, although the state hospital patients faced more problems they were generally more satisfied with their system compared to the private clinic due to the need that the state hospital patients were mostly older and poorer and possibly felt more obligated to the state system, whereas private hospital patients were relatively younger, wealthier and were paying quite a lot for the services they received.

A longitudinal study of Quality of Life (QoL) in chronic illness

B. DIBBI & C. ERTUBEY, University of Southampton.

Background: To assess adjustment over time, as measured by change in QoL and response shift, and to determine the factors predicting change in QoL.

Method: At baseline and 10 month follow-up 301 people with Meniere's Disease who were members of a self-help group (SHG) completed questionnaires assessing functional QoL (using the SF-36) and goal-oriented QoL (using the newly developed GOQOL). Baseline predictors of response shift, and to determine the factors predicting change in QoL were defined in terms of responses to a situation whereby a peer offered alcohol as easier to cope with than drinking oneself.
Patients’ psychological perceptions and immunological responses before and after Cardio-Pulmonary Bypass (CPB): The impact on neutrophil activity and health outcomes

D.R. ELLARD, J.H. BARLOW, R. MIAN, Coventry University & R. PATEL, University Hospitals Coventry and Warwickshire.

Background: Neutrophils, components of the non-specific immune system have recently been implicated in disease states (e.g. myocardial infarction). This study explored the relationships between a ‘naturalistic’ stressor (heart-surgery), psychological well-being and both ‘natural’ and ‘elective’ activity and the phagocytic capacity of neutrophils and the effects these may have on outcome.

Methods: Ninety patients who were to undergo CPB were assigned to one of two groups. An ‘elective’ group N = 64 (51 males, 13 females) and an ‘acute’ group N = 26 (22 males, four females). Patients were seen the evening before surgery and at clinic six or seven weeks after discharge using standard measures to assess psychological well-being. Small peripheral blood samples were taken. Neutrophils ‘Current’ activity was determined from whole bloods’ capacity to phagocytose zolbong (3% NBT) (per cent NBT positive cells), phagocytic capacity, from stimulated whole blood, luminol-dependent chemiluminescence.

Findings: Results revealed a consistent, statistically significant association between stress and per cent NBT cells pre and post-surgery (p < 0.001) in both groups. Phagocytic capacity was significantly greater in the ‘acute’ group both before and after surgery (p < 0.02). There was a significant difference on perceived stress (p < 0.001) between groups, pre-surgery, both significantly reduced post-surgery. The ‘acute’ group had the highest stress. No significant differences were found between or within the groups for anxiety, depression, and positive and negative effect.

Discussion: Results highlighted a consistent significant relationship between perceived stress and the ‘activity’ of neutrophils. The implication of which could be that stress activated neutrophils may play an important role in both cause tissue damage and affect health outcomes.

The 24-hour Sleep Catastrophising Scale: Development and validation

J. ELLIS, M. CROPLEY & S.E. HAMPSON, University of Sheffield.

The concept of catastrophising is born from early work on hypochondriasis and its later conception on the continuum of ‘health anxiety’. Catastrophising has been examined in relation to several health conditions and sleep researchers have alluded to a form of sleep specific catastrophising. The aim of the present study was to examine whether sleep catastrophising exists and whether this is related to self-reported insomnia, actual sleep parameters, and other health characteristics. Our findings suggest that catastrophising is related to reports of sleep onset insomnia, early morning awakenings, more dysfunctional beliefs about sleep and poor adaptation to stress but unrelated to the overall amount of sleep in the day. Further research is needed in this area to discuss in relation to preventative sleep medicine, the possible mechanisms under which sleep catastrophising influences sleep, and the cognitive consolidation model of insomnia.

An exploration of the factors influencing clinic attendance and non-attendance in young adults with Type 1 diabetes

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Background: Non-attendance at diabetes clinic is a significant problem which impacts on the efficiency of diabetes healthcare delivery and has been associated with negative health outcomes for patients. However, previous research has provided only limited understanding of the factors influencing attendance. Methods: The current study used a qualitative methodology to explore in greater depth the factors influencing clinic attendance and non-attendance.

Results: The participants were 90 patients who were to undergo CPB from the UK. The current study used a qualitative methodology to explore in greater depth the factors influencing clinic attendance and non-attendance. The participants were 14 young adults (male) aged 19 to 35 years old with Type 1 diabetes. Seven were defined as regular attenders (history of consistent attendance), five as partial attenders (history of inconsistent attendance) and two as non-attenders (history of persistent non-attendance). A semi-structured interview, which was audio-taped and transcribed. Inductive thematic analysis was used and comparison of the patterns of data from regular, partial and non-attenders across the emergent themes identified the following factors as influential on attendance behaviour.

Results: Results were influenced by a strong belief in ones own responsibility for health, an emphasis on the screening role of the clinic, and by the positive nature of relationships with clinic staff (particularly the diabetes specialist nurse) which fostered a collaborative approach to care. Non-attendance was influenced by negative experiences of transition from paediatric care, lack of recognition of the need for adaptation to diabetes, internal barriers including psychological distress, problems fitting attendance around work schedules and dissatisfaction with the location and surroundings of the clinic.

Discussion: These findings demonstrate the impact of psychological factors on attendance behaviour and illuminate new directions for future research and intervention.

Decision about intentions to use medical bioengineering: Differential sensitivity effects between America and the UK

E. FERGUSON, K. FARRELL, K.C. LOWE, University of Nottingham, G. MATTHEWS, University of Cincinnati & V. JAMES, National Blood Service UK.

Background: The use of bioengineering for medical interventions is increasing. Evidence suggests that Americans, compared to Europeans, perceived such technology as less risky. This raises two questions: First: ‘What accounts for the country by frame interaction?’ One possibility is differential sensitivity across nations to the presentation (framing) of risk information. Second: ‘Is this country-nation difference reflected in behavioral decision-making?’. We were interested in risk preferences and decision-making with respect to the use of bioengineered artificial blood. (human, fluorocarbon or bovine (cow) derived).

Methods: Methods: A two-way (1) type of blood (donated, human engineered, fluorocarbon or bovine) by (2) frame (positive vs negative) between subjects design. The current study used a qualitative methodology to explore in greater depth the factors influencing clinic attendance and non-attendance. The participants were 14 young adults (male) aged 19 to 35 years old with Type 1 diabetes. Seven were defined as regular attenders (history of consistent attendance), five as partial attenders (history of inconsistent attendance) and two as non-attenders (history of persistent non-attendance). A semi-structured interview, which was audio-taped and transcribed. Inductive thematic analysis was used and comparison of the patterns of data from regular, partial and non-attenders across the emergent themes identified the following factors as influential on attendance behaviour.

Findings: Findings: Findings: Correlations were found between; catastrophising and pain intensity (r = 0.70, p = 0.0005); catastrophising and depression (r = 0.70, p = 0.0005); and satisfaction with social support and pain intensity (r = –0.34, p = 0.04). There were no significant correlations found between either catastrophising and amount of social support (r = –0.04, p = 0.83), or satisfaction with social support (r = 0.23, p = 0.16).

Discussion: The proposal that catastrophising has a functional, support seeking purpose is questioned, although such a function may be utilised but unobservable. Social support remains an important consideration given its association with pain intensity and depression, while the maladaptive nature of catastrophising is confirmed. The low number of participants may affect the reliability of the results obtained and restricts more elaborate analysis of the data.

Non-medical influences upon medical decision-making

D. FLYNN, P. VAN SCHAIK, A. VAN WERSCH, University of Teesside, A. DOUGLASS & P. CANN, James Cook University Hospital.

Background: According to the ‘prescriptive approach’, medical decision-making (MDM) is based on rates and probabilities of disease, and objective signs and symptoms. Conversely, the ‘descriptive approach’ acknowledges that MDM is a social transaction, strongly influenced by ‘non-medical factors’ (NMFs).

Methods: A search of the research literature on MDM, restricted to English language papers during the period 1980–2001, was conducted to determine amount of and satisfaction with support.

Findings: Findings: Findings: Over 200 empirical studies demonstrated significant variation in MDM as a function of NMFs in four main categories: patient (e.g. socioeconomic status), doctors (e.g. specialty, age, personality traits), health care system (e.g. characteristics of primary and secondary care) & decision-making environment (e.g. time, pressure). Significant variation in MDM as a function of NMFs was evident for a wide variety of medical and surgical treatments; however, clinical consequences of this variation such as increased morbidity and mortality is unclear.
Discussion: To increase the appropriateness and reduce the inequity in MDM, the use of computerized systems is proposed to support physicians’ mental processing and patient education to increase participation in shared-decision making (SDM) with physicians. Health psychologists are conducting pioneering work in this area to enhance the use of decision-making strategies by patients and physicians. The SDM is congruent with their values and preferences. Future research should address the structure, process and outcomes of SDM including the clinical consequences of variation as a function of NMFs. A new conceptual model of MDM that incorporates SDM is proposed to guide future investigations in these areas.

‘Achieving togetherness, time and understanding’. Training and Support Programme for caregivers of children with disabilities


Background: Therapeutic massage can be a helpful intervention for people with a disability or a chronic condition, and their families. The aim of this study was to explore the experience of the Training and Support Programme (TSP) for caregivers of children with disabilities.

Methods: A total of 15 caregivers of children with disabilities participated in the study and completed Home Record Sheets to monitor their own and their children’s progress through TSP. Content analysis was used to analyse the data.

Findings: The majority of caregivers were mothers (81 per cent). Children had a range of disabilities including cerebral palsy, autism, epilepsy, musculoskeletal problems and chromosome disorders. After attending the TSP, nearly a third (30 per cent) of caregivers reported increased happiness and enjoyment and over half of them (53 per cent) were more relaxed. Approximately half of the parents reported positive effects on children’s bowel movement (40 per cent), mobility (42 per cent) and sleep patterns (50 per cent). Potential positive effects for the carers comprise a sense of security and confidence (12 per cent), developing a closer relationship with their child (52 per cent) and a better tolerance for child’s problems (33 per cent). Caregivers also found the TSP to be effective, natural and relaxing, providing them with the opportunity to improve and maintain psychological well-being.

Discussion: Further quantitative studies are necessary to assess caregiver’s well-being.

Men and chronic illness: A qualitative study of LUTS

K. CRONON, University of East London, L. GLOVER, University of Hull, M. O’NEILL, Littlemore Hospital, Oxford & M. EMBERTON, University College London Medical School.

Background: Men often fail to pay attention to symptoms, to seek help from healthcare professionals and to undergo screening. It is, therefore, important to understand how men determine their health status and how they conceptualise and manage them. Benign Prostatic Hyperplasia (BPH) is a progressive enlargement of the prostate that occurs in most men over 55. The symptoms associated with this are referred to as Lower Urinary Tract Symptoms (LUTS).

Methods: 16 men with LUTS were interviewed to examine the relationship between detecting symptoms and seeking medical help, perceptions of risk and the timing of symptoms on daily life. Transcripts were analysed employing IPA.

Findings: Four major themes were identified:

- Uncertainty/Trying to understand, Implications, Ways of Coping and Self-concept/Identity.
- Uncertainty about the nature and origins of their condition and its gradual onset contributed to the delay in seeking medical advice. Men adopted a range of coping strategies to manage their symptoms and reported that their symptoms did not have a major impact on their daily lives.

- Discussions about whether men need to be better informed about chronic conditions and to be encouraged to attend their doctor more regularly and to be proactive in raising their concerns. This should routinely ask questions based on an anticipation of what men of a particular age might be suffering from. Many men felt that the vail was more likely to be a problem-solving approach to managing symptoms.

Patients’ perception of information about highly active antiretroviral therapy (HAART): Impact on treatment decisions

G. GELLAIRTY, V. COOPER, L. DOWDELL, Centre for Health Care Research, University of Brighton, M. FISHER & R. HORNE, Brighton and Sussex University Hospitals NHS Trust.

Background: The aim of this study was to profile patients’ satisfaction with information they had received about highly active antiretroviral therapy (HAART) in relation to treatment uptake.

Methods: As part of a prospective investigation into uptake and adherence to HAART, participants were invited to complete questionnaires investigating their satisfaction with information relating to practical aspects and potential problems of HAART, perceptions of information from different sources and beliefs about HAART, following a clinically recommended treatment offer. Interviews were also conducted.

Findings: Patients’ perception of total satisfaction scores indicating variation in patient satisfaction and information requirements. Those who declined HAART (N = 28) were less satisfied with the information they had received than those who accepted the treatment recommendation. (N = 86) (p < 0.05). Levels of satisfaction were associated with stronger concerns about the adverse effects of medication (p < 0.05). Interview data revealed four main themes related to information; Clinical information; Sources of information; Amount/availability of information; and Information requirements.

Discussion: These findings have improved our understanding of how people faced with treatment decisions perceive information about HAART, and how this impacts on treatment decisions. The study emphasises the importance of providing information that meets patients’ personal needs, including their specific concerns with implications for the design of interventions to support informed decision making.

Exploring expectations of primary health care services as an explanation for the increase in demand. Increasing expectations, service utilisation and the role of social class

J. GIBSON, L.B. MYERS & S.P. NEWMAN, University College London.

Background: Various studies have shown health inequalities between social classes and also the high use of health services in primary care by the middle classes. Research conducted in the 1980s attributed the increased use of health services to rising expectations that medical care can achieve better health. The current study used survey data from social class on expectations of primary health care services in an attempt to explain this high use.

Methods: The design of this study was cross-sectional. Social class was measured by occupation, education, and material circumstances. Participants (N = 102) also rated the importance of their expectations with a GP (19 items, measured on a five-point scale) and gender. Analyses were Pearson correlations and Multiple Linear Regressions.

Findings: Expectations of primary health care services were high throughout the sample (mean = 3.87). Principal component analysis of expectations yielded a four factor solution: Factors 2, 3 and 4 (expectations of treatment, negative expectations, expectation of examination) were significant positively correlated with education and negatively correlated with material circumstances. Multiple regression indicated that both occupation and education were significant predictors of these three measures of expectation.

Discussion: Two measures of social class (occupation and education level) were significant predictors of expectations. That the higher the occupation and education level, the higher expectations. It could be argued that government health policy, outlined in papers such as the NHS Plan.

The effects of written guided disclosure on distress of parents of children with leukaemia

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Background: Research has shown that children with leukaemia do not show severe mental-health changes compared to controls. In contrast, parents of children with leukaemia (PCWL) may manifest significant psychological distress. These parents of healthy children. The present pilot study examined whether writing in a guided manner, about the traumatic event of receiving the child’s diagnosis and treatment, reduced parents’ distress.

Methods: Since we have small numbers at our clinic, we used an AAB design. Eight PCWL competed measure of post-traumatic stress disorder (PTSD) and depression at Time 1, Time 2 and Time 3 after writing, with one month gaps between each period. The previously developed guided disclosure protocol (GDP) aims at changing the manner in which the brain processes traumatic memories, and asked parents to describe receiving the diagnosis chronologically, to explicitly label their emotions, to express how they think about their life (insight) and whether it contributed to their personal growth.

Findings: No significant differences were found in levels of PTSD and depression between both baselines. However, significant reductions were found in PTSD symptoms from the first baseline to post-treatment. No reductions were found for depressive symptoms. Time from diagnosis was unrelated to outcomes.

Discussion: With the first among the studies attempting to prevent distress in PCWL. The GDP appears to reduce PTSD but not depressive symptoms. This study needs to be replicated in a larger sample and other ways for reducing parents’ depression are needed.

The relation between gerotranscendence (old-age wisdom) and elderly patients’ use of primary care

Y. GIDRON, Ben-Gurion University, Israel & Southampton University, A. VOLFER, Ben-Gurion University, Israel & Z. RONEN, General HMO, Israel.

Background: According to the recently developed gerotranscendence (G) model, elderly people who achieve a high level of G have a certain type of ‘wisdom’ and acceptance in viewing themselves and the world, and perceive closeness to people who may be far from them in time and place. Their life satisfaction is enhanced as a result. Thus, we examined the relation between G and frequency of health-care visits (HCV) in elderly people. Furthermore, we hypothesised that G would moderate the effects of patient characteristics on HCV.

Methods: 80 elderly people living in one of six villages in the South-East region of Israel took part in this study. The HCV was measured by the HCV-G scale, and were evaluated for demographic and background data. They were then followed prospectively for six months in relation to patient initiated (PI) and doctor initiated (DI) HCV.

Findings: G was strongly inversely correlated with patient initiated visits. G was a significant predictor of doctor initiated visits. A higher level of G was associated with a lower number of doctor initiated visits.
with number of PI visits (r = 0.87), but weekly satisfaction being the alleviation of withdrawal treatment satisfaction. This was, however, in conflict with staff and particularly doctors. Furthermore, contradicting previous findings, a majority of patients reported a preference for the non- official relatives in the treatment. Conclusion: The best predictor of patients; satisfaction being the alleviation of withdrawal symptoms; the importance of self-efficacy and subjective norm in the prediction of intentions. Findings/Discussion: Findings show that condom use in South Africa can be predicted successfully by social cognition variables and provide useful information for the design of effective HIV/AIDS education programmes.

Psychological distress and cancer incidence in the Whitehall II Study A.M. GOLDSMITH, College London, R. FÜHRER, McGill University & S.A. STANSFIELD, Queen Mary, University of London

Background: Using longitudinal data from the Whitehall II study, this research has investigated whether elevated distress in cancer-free participants was associated with an increased risk of cancer over a mean 10.7 years of follow up. Pathways were explored between distress and cancer. Results: The hypotheses were formulated using Steptoe’s (1991) model of Psychobiological stress response, with the aim of assessing the implication of the cognitive–behavioural pathway.

Methods: The sample consisted of 6799 men and 3300 women who returned the baseline questionnaire and at a follow up period of two weeks. Standardised assessments of the Theory of Planned Behaviour (TPB), Protection Motivation Theory (Milne et al., 2000) and a Composite Weighted Exercise Score (WES) were used. The primary outcome measure was each of these described. A follow-up questionnaire was sent after two weeks.

Findings: Analyses of demographic, TPB, frequency of physical activity and WES indicated no difference at baseline. MANOVA (four groups * two time) indicated no main effect for WES across the four groups (F(3, 227) =0.217, n.s.), no Group*Time interaction (F(3, 277) =0.400, n.s.) but a significant Time effect (F(1, 277) = 20.443, p <0.001). A discriminant analysis indicated a moderate effect for making an Implementation Intention on the frequency of subsequent behaviour.

Discussion: Motorial and volitional intervention did not increase the frequency of total leisure time physical activity.

Inpatient detoxification treatment evaluation: Adequate information provision predicts patients’ satisfaction C.E. GINESTET & T. DOMAH, Thames Valley University & Max Glatt Unit.

Purpose: To determine the role of the partners in the factors influencing their decision to use a condom.

Methods: A questionnaire was administered at Time 1 and a short follow-up set of items were administered one week later at Time 2, thereby allowing a comparison of intention from actual behaviour.

Participants: Participants in the study were 152 young adults (18 to 26 years) living in the Kwazulu Natal region of South Africa.

Measures: Both direct and belief-based measures of the core constructs contained within the TPB were assessed together with a set of individualistic items. The factors influencing their decision to use a condom.

Measures: Analyses of multiple regression provided strong support for the TPB, accounting for some 67 per cent of the variance, and highlighted the importance of both self-efficacy and subjective norm in the prediction of intentions.

Findings/Discussion: Findings show that condom use in South Africa can be predicted successfully by social cognition variables and provide useful information for the design of effective HIV/AIDS education programmes.

The role of partner relationships in young adults’ adherence to the diabetes self-care regime R. GILLBRAND, University of Glasgow.

Background: The investigation of young adults with diabetes has revealed social support to be the main indicator of good adherence to the self-care regime. However, previous studies based mainly in paediatric services have assessed adherence to the diabetes self-care regime.

Participants: Participants were recruited by self-referral and how this compares with their own provision of services for men, their pattern of maintenance and control in interactions with practitioners.

Purpose: This study investigated the views of male GPs on managing current service demands was seen as a major challenge and for them to avoid negative effects on their service and associated with negative images of masculinity. Male patients appeared to use a variety of ways of presenting at surgery to enable them to avoid negative effects on their self-image. Like non-medical men, male GPs


Background: This paper presents the results of three studies assessing the effectiveness of a modified form of the Theory of Planned Behaviour (TPB), Protection Motivation Theory (Milne et al., 2000) and a Composite Weighted Exercise Score (WES) were used. The primary outcome measure was each of these described. A follow-up questionnaire was sent after two weeks.

Findings: Analyses of demographic, TPB, frequency of physical activity and WES indicated no difference at baseline. MANOVA (four groups * two time) indicated no main effect for WES across the four groups (F(3, 227) =0.217, n.s.), no Group*Time interaction (F(3, 277) =0.400, n.s.) but a significant Time effect (F(1, 277) = 20.443, p <0.001). A discriminant analysis indicated a moderate effect for making an Implementation Intention on the frequency of subsequent behaviour.

Discussion: Motorial and volitional intervention did not increase the frequency of total leisure time physical activity.

‘Too busy doing other things’: Male GP’s attitudes towards their own health and that of their patients S. GROGAN, S.C. HALE & S. WILLOTT, Staffordshire University.

Purpose: While statistically men have a shorter life expectancy, they are less likely than women to consult their GP with health problems. Previous research indicates that this is related to a lack of information on health topics, and a need to review current service delivery for men (sensitive GPs).

Method: Semi-structured interviews were carried out in 2004 and 2005. Data were collected at the time of routine GP visits, during telephone calls, and during telephone follow-ups. The interviews were audiotaped and subjected to thematic analysis.
emphasised the need to control their own health care, however, this was often in a way which may have neglected needs for their babies.

Conclusion: This study suggests that men’s health care behaviour is more related to their need for control than with levels of information and that the pressures of service provision and men’s need to promote a positive image of masculinity may influence patterns of self referral.

Perceptions of the cost implications of health and safety failures K. HAEFELI & C. HASLAM, Institute of Work, Health & Organisations, University of Nottingham & R. HASLAM, Health & Safety Economics Unit, Loughborough University.

Background: A study conducted by an active campaign to improve awareness of health and safety issues in the workplace. Although such campaigns have led to improvements in the management of health risks and expectations of employers, the costs of health and safety based on accurate cost/benefit assessments. This study is assessing companies’ perceptions of the impact of accidents and work-related ill health.

Methods: Four focus groups were conducted with managers and health and safety representatives to explore the perceptions of the costs of workplace accidents and work-related ill health. Participants comprised representatives from industries involved in the working on sectors across a range of industrial sectors. Each discussion was recorded and fully transcribed. The qualitative data was then used to develop themes and sub-themes emerging from the data through content analysis. The findings were then verified with the companies.

Discussion: The findings are providing greater understanding of awareness of health and safety issues in the workplace. The findings will inform interventions aimed at raising awareness of the financial consequences of health and safety inadequacies and the benefits of investing in effective health and safety measures.

‘What’s going to happen. What are they going to do?’: Psychosocial issues in pre-term labour J.M. HAINSWORTH, J.H. BARLOW, Coventry University & S. THORNTON, University of Warwick.

Background: The identification of women at risk of psychologically mediated complications during and after pregnancy is felt to be an important part of obstetric care. Attention has turned to investigating the relationship between stress, social support and pre-term labour. The aim of this study was to describe women’s experiences on admission to hospital with a pregnancy-related complication using interviews thus allowing women’s voices to be heard.

Method: A qualitative interview study was conducted of women admitted to hospital in pre-term labour (N=8) and women admitted with hypertension (N=12), Issues explored included women’s condition at the time of admission, their expectations concerning their delivery; the degree of stress experienced whilst in hospital and at home; and current coping strategies. Qualitative data were analysed using Interpretative Phenomenological Analysis (IPA).

Findings: Overall, women described similar feelings in relation to their experience of being admitted to hospital with a pregnancy-related complication. Key themes to emerge related to coping with the uncertain nature and course of a pregnancy-related complication; the importance of being given consistent and accurate information; and being believed (e.g. physical symptoms and associated distress). The exception was that a number of the hypertensive women felt a ‘fraud’, as they often did not have any symptoms. Women who had previously experienced a premature birth, were clearly anxious about their current condition.

Discussion: The majority of women interviewed valued the opportunity to discuss their experiences, hopes and fears following admission to hospital, and revealed a number of important clinical aspects to their maternity care. For those women who reported poor symptoms, further professional input may be necessary.


Background: Analysis of health statistics has shown that while men have a shorter life expectancy and suffer from more chronic health problems, this has been attributed to genetic, behavioural and sex role differences. This study aimed to evaluate men’s and women’s attitudes to health care using a qualitative methodology.

Method: Semi-structured interviews were carried out with 20 men and 20 women (aged 46 to 79 years) who had been recently referred to a urology clinic. Interviews were audiotaped and subject to thematic analysis.

Findings: Men and women differed substantially in their experiences of urinary tract illness, in the ways they cope with health problems, sought medical help and in their relationships with health care providers. Men’s health behaviours were heavily influenced by parental anxieties whereas women made health choices based on education or personal experience. Findings suggest that women use hope and their health experts to develop and maintain their own health, whereas men are handicapped by their need to maintain a traditional macho image and maintain strength and self reliance. Men had more negative attitudes towards male GPs than women did whereas women’s prior relationship with their GP was seen as more important than the GPs sex.

Discussion: These findings suggest that sex roles are influential in both men’s and women’s health care behaviour and have implications for both understanding the differences between men’s and women’s health behaviours and in targeting interventions relating to encouraging earlier self referral.

Coping with Ankylosing Spondylitis A. HAMILTON-WEST & I. QUINE, University of Kent.

Background: The study focused on individuals with the chronic condition Ankylosing Spondylitis (AS) and addressed the following questions: What does it mean to live with the condition on a daily basis? What methods do people use to cope with the condition? Are these methods related to the individual’s gender? What coping strategies can be identified, in particular stress-related coping strategies? How do stress-related coping strategies relate to the impact of AS on patients? The intervention tested her was based on Pennebaker’s emotional expression paradigm in which participants write about a stressful (experimental condition) or neutral (control) topic for 20 minutes on three consecutive days.

Results: AS has negative impacts on many areas of life. In addition to the physical effects of the condition, AS was associated with changes to the individual’s working life, social life, personal relationships and mood. However, the majority of participants were also able to describe positive impacts of their condition (e.g. increased sense of meaning/purpose in life, new or stronger relationships, feelings of achievement). The methods participants used to cope with AS were influenced both by their pre-existing style of coping and by daily fluctuations in pain and mood. The emotional writing exercise was associated with significantly improved global health ratings at follow-up relative to controls.

Conclusion: Although chronic conditions may be associated with negative effects on a wide range of areas of life, patients are often able to cite benefits. Emotional expression may aid in the process of finding meaning from adversity and to a more positive perception of the condition.

Exploring Theory of Planned Behaviour constructs to explain staff adherence to a mental health guideline A. HANBURY, L.M. WALLACE, D. CUSHWAY & M. CLARK, Coventry University & Wolverhampton City Primary Care Trust.

This qualitative study explored, in relation to constructs of the Theory of Planned Behaviour (TPB), the perceptions and attitudes of mental health (MH) professionals in a Midland’s Primary Care Trust (PCT) towards working with guidelines on mental health care provision. A seven-day contact (SDC) guideline in particular. This national guideline, positing that service-users should receive contact within seven-days of discharge from inpatient care, was developed following the finding that suicides peak in the first two weeks following discharge (Safety First, 2001) and features in the National Service Framework for Mental Health (2000). The aim of the study was to gain an understanding of the factors underlying adherence to the SDC guideline, since this was identified as an area for improvement by the collaborating PCT.

One staff member from each of eight relevant services within the PCT directorate experiences and attitudes was interviewed, including nurses, social workers, and occupational therapists. Interviews were semi-structured and focused on Specific TPB constructs: attitudes (ATT), social norms (SN) and perceived behavioural control (PBC). Interviews were transcribed and analysed using Interpretative Phenomenological Analysis (IPA).

Six themes were identified and subsequently related to the constructs of the TPB. The themes were: importance of training in SDC and PBC constructs, either individually or an intervention of the two, suggesting interplay of these constructs underneath the SDC guideline. However ATT, PBC and SN all appeared related to a theme concerned with the...
role of disciplinary and team differences in guideline adherence, suggesting that the team or profession an individual works in may be particularly influential. These findings will be used in future research to design items for a TPB guideline, that can then be utilised in designing and testing an intervention to increase adherence.

**Long-term adjustment among the partners of cardiac patients**

H. MANLEY, University College London

While an extensive body of research literature suggests that cardiac patients are at risk of psychological distress following hospital discharge, little attention has been paid to the psychosocial consequences of the cardiac event for their partners. This is despite evidence that partners often play a key role in facilitating the process of rehabilitation for the cardiac patient. To investigate this issue, a longitudinal study was conducted of 238 cardiac partners (177 females and 61 males), with adjustment being assessed at six and 12 months following the discharge of the patient from coronary care. Analyses revealed that the partners of cardiac patients were likely to report high levels of both anxiety and depression up to one year following the cardiac event. Furthermore, among the sample, female partners were more likely to report a poorer QoL across a range of functional areas compared to male partners (p = 0.001), and partners from lower social class groups were reported poorer functional outcomes in comparison to their higher social class counterparts (p = 0.02).

The findings of this study raise important questions for the design of support services following the discharge of cardiac patients. It may be the case that certain family networks operate to disproportionately impact on the partner in the role of carer, in that it may actually be placing the health of the individual at risk. In view of this data, the design of cardiac rehabilitation services which target the family more broadly will be considered.

**Changes in affective and likelihood ratings in response to the presentation of absolute and comparative risk information**

P. HARRIS, University of Sheffield

Background: When absolute and comparative risk were crossed experimentally, Klein (1997) found participants were disturbed by their comparative risk but typically not by their absolute risk. Klein participants were crossed experimentally, Klein (1997)

**The accounts of people managing primary systemic vasculitis, a chronic autoimmune disease**

E. HARROLD, M. KOUTANTJI, K. HENWOOD, S. PEARCE, University of East Anglia, S. LANE & D.G.I. SCOTT, Norfolk and Norwich University Hospital

Background: Primary systemic vasculitis (PSV) is an autoimmune condition causing inflammation of blood vessels and damage to organs. The exact cause is unknown but modern therapy has changed the presentation of this condition in many patients to one of relapsing and remitting chronic disease. The aim of the study was to gain an understanding of the patient’s perspective in order to inform the management of this condition. The overall impact of PSV was that the participants’ lives were restricted and socially isolated. They experienced physical disability, fatigue, pain and varying levels of psychosocial distress. They were focused on being accessible medical support. The participants had strongly differing attitudes to seeking information about the illness, seeking support from patients with similar diagnoses and to accessing medical input.

**The impact of hand osteoarthritis on the individual: A focus group study**

S. HILL, B.N. ONG, P.Y.L CHOI & K. DZIEDZIC, Primary Care Sciences Research Centre, Keele University

Background: Osteoarthritis (OA) is a common disabling complaint in older people, the hands being second only to the knee. The degree of involvement of OA varies across the hands. Little is known about the effects of hand problems in OA. The aim of this focus group study was to explore patients’ illness perceptions in order to gain an understanding of the impact of hand OA on the individual.

Methods: Four focus groups were conducted. The focus groups consisted of patients from either primary or secondary care with a clinical diagnosis of hand OA. The verbatim transcripts were content analysed using open, axial and selective coding.

Findings: Themes generated included: (i) Functional impact, in terms of everyday activities and self-care; (ii) Psychological impact, including frustration and self-concept; (iii) Coping and control, particularly in terms of conventional medication and ‘alternative’ forms of treatment; and (iv) ‘Other’ illness perceptions in relation to the Common-Sense Model, a model developed to help understand the self-regulation processes by which individuals make sense of an illness experience.

Discussion: Clinical care is largely geared towards the treatment of symptoms using conventional advice and patients do not like to take. Patients often resort to self-help and ‘alternative’ forms of treatment. Lack of available information/education was expressed, particularly in relation to coping. This is a key area for the involvement of a multidisciplinary team, including a health psychologist.

**Talking about sex in primary care: Gender relations in the consultation**

S. HINCLIFF, M GOtt & E GALENA, University of Sheffield

Background: This paper investigates how gender of the patient or general practitioner (GP) can create barriers to discussing sexual health matters in primary care consultations.

Method: In-depth interviews were conducted with 22 GPs (nine women and 13 men aged 34–57) recruited from contrasting types and geographical locations across Sheffield. Data were analysed thematically, assisted by the qualitative software programme NUD*IST.

Findings: GPs identified a number of gender-related barriers that impede discussion of sexual health in consultations. These include patient preference for a same-sex GP, a consequence of which was that some GPs felt ‘de-skilled’ when it came to treating patients of the opposite sex, and how clear gateways to discussing sexual health presented when the patient was female but not when it was male.

Discussion: Barriers to discussing sexual matters in consultations have the potential to impinge upon would-be treatment for the patient: inadvertently not exploring sexual problems because the patient is the opposite sex to the GP, or because no opportunities present during the consultation, can have a direct and indirect affect on the patient’s life, health and intimate relationships. Implications for practice largely to the provision of training for medical students and qualified GPs regarding the management of sexual health problems. A further implication relates to extending the role of Practice Nurses, however problems surrounding this will be discussed.

**Computer-facilitated smoking cessation services: How well does the internet do in the provision of tailored support?**

I.C.A. HOBBIS & S.R. SUTTON, University of Cambridge

Background: The Internet offers the possibility of wide-reaching, easily accessible smoking cessation services, with the added potential of creating tailored interventions using personal assessment information. The number of generic sites currently available is vast with variable content and reliability.

Methods: A review of web-based smoking cessation sites was conducted to determine the degree of personalisation offered. The number sites offering personalisation were targeted. Twenty-six sites were reviewed in detail. Sites were evaluated according to the Health on the Net Foundation criteria, highlighting the potential for misleading patients and the effects of inferring site quality from the presence of commercial sites.

Results: The majority of sites are commercial, offering smoking cessation products, for example NRT or self-help guides. A significant number also offer generic education and advice to support quitting. Sites offering personalised tailoring of advice and information do not meet initial review criteria, of which 21 were reviewed in detail. Sites were evaluated according to the Health on the Net Foundation (HON) Code of Conduct, for content and for the degree of personalisation offered. Literature searches were conducted for empirical evaluations of sites.

Discussion: The majority of sites are commercial, offering smoking cessation products, for example NRT or self-help guides. A significant number also offer generic education and advice to support quitting. Sites offering personalised tailoring of advice and information do not meet initial review criteria, of which 21 were reviewed in detail. Sites were evaluated according to the Health on the Net Foundation (HON) Code of Conduct, for content and for the degree of personalisation offered. Literature searches were conducted for empirical evaluations of sites.

Results: Few sites currently meet HON criteria, highlighting the potential for misleading and inaccurate information to be posted. Furthermore, there are few published evaluations of the effectiveness of sites available.

Discussion: Whilst the internet offers a rich and varied medium through which smoking cessation services can be offered, currently this resource is poorly used. The quality of the services offered is also variable as the content and reliability of advice is generally unregulated. Personalisation and evaluation of user-friendly, accurate, personalised services is encouraged.
Exercise levels and individual differences in choices of exercise and physical activity
A.J. HULL & M. MORRIS, University of the West of England.

Background & Methods: This quantitative, quasi-experimental, between groups study aimed to assess how much exercise and/or physical activity four groups of ‘exercisers’ (Swimming, Gymnastics and Yoga) and a group of ‘non-exercisers’ undertook, whether groups differed in this and in certain personality variables, the latter were predictive of group membership. The personality variables were extraversion [EPO-R Shorter Version], self-esteem [Rosenberg Self-Esteem Scale], self-efficacy [Generalised Self-Efficacy Scale], and the exercise orientation questionnaire with six factors, self-control, orientation to exercise, self-loathing, identity, competition and tradition. One-hundred-and-fifty participants were recruited from five Leisure Centres plus one health club and 30 ‘non-exercisers’ from local communities.

Findings: 63 per cent of ‘non-exercisers’ were taking some exercise. Most ‘exercisers’ and ‘non-exercisers’ undertook more than the recommended levels of physical activity and a group of ‘heavy exercisers’, doing significantly more exercise than the others, was identified. Analyses were carried out for Original exercise groups and for revised groups, with ‘heavy exercisers’ as a fifth group. Significant differences between groups in extraversion, self-control, orientation to exercise, identity (revised group only) and competition were found. Different patterns in correlations of the dependent variables, significant at the one per cent level, for each group were described. Discriminant analysis, with the dependent variables as predictor variables and independent variable as a critical variable, revealed that exercise to be the sole predictor for both original F(3,146) = 5.979; p < 0.001 and revised F(4,145) = 6.346; p < 0.005) exercise groups (35% of per cent and 26 per cent overall success respectively).

Sexual risk-taking behaviours and condom use among HIV negative and HIV positive male sex workers B. HUTCHIN, L. University of Gloucestershire.

Background: This research considers health and sexual risk-taking behaviours in a sample of London-based male sex workers. Many sex workers work privately and independently with a primarily male clientele. Because of the lack of empirical studies in this area, this study is exploratory to gain understanding of the experiences related to risk-taking behaviours, condom use and sexual health.

Methods: 50 in-depth interviews were thematically analysed, using a grounded theory approach, to gain an understanding of sex worker’s experiences related to risk-taking behaviours and sexual health.

Findings: It is well established that condom use among sex workers (both male and female) differs according to the client’s race, age and sexual orientation. This is a finding that is consistent with the data collected from these London-based interviews. This study demonstrates that whether and how a condom is used can differ according to a number of situational contexts. Sex workers are most likely to use condoms with regular partners and less likely to use condoms with regular partners.

Discussion: One important finding from this research is that sex workers report sometimes not using condoms when performing oral sex on clients to whom they report feeling attracted as well as engaging in higher risk condomless penetrative sex. Condoms are more likely to be used when performing oral sex on clients who are considered unattractive by the worker and/or because of poor standards of personal hygiene. Whether or not a condom is used depends to a large extent on the type of activity and even client characteristics and physical attributes.

Can implementation intentions increase fruit and vegetable consumption with cardiac patients? C. JACKSON, R. LAWTON, M. CONNER, C.J. LOWE, P.R. KNAPP, D.K. RAYNOR & S.J. CLOSS, University of Leeds.

Background: Eating at least five portions of fruit and vegetables each day reduces death or cardiovascular illness in people with existing cardiovascular disease (CVD). This prospective study tested the efficacy of implementation intentions to increase fruit and two extra portions of fruit or vegetables each day.

Methods: A total of 119 CVD patients (71 male, 48 female, aged 47 to 84 years) were requested to increase their intake and randomly assigned to three groups (1 control – time filling activity, N = 44; 2. TPB questionnaire, N = 38; 3. TPB questionnaire plus implementation intention, N = 37). Participants were telephoned at 7, 28 and 90 days after recruitment. Self-reported daily fruit and vegetable intake was recorded at each time point. Dependent variable was the change in daily fruit and vegetable intake.

Findings: A repeated measures ANOVA revealed no main effects for time or group. There was a significant interaction effect (F (4,112) = 2.50, p = 0.047). At seven days follow-up, the intervention group had increased their daily intake by more than the other two groups. (F (2,98) = 3.90). At 90 days follow-up, the intervention group had increased their intake by less than the other two groups (F (2,58) = 2.44, p = 0.096).

Discussion: These results suggest that implementation intentions can increase daily fruit or vegetable intake in the short term but question their value for a longer time period. Asking people to increase their intake and then telephoning them can be an effective strategy.

Psychosocial impact of corrective surgery in strabismic adults S. JACKSON, N. RUMSEY, University of the West of England & R. HARRAD, Bristol Eye Hospital.

Background: Over the past 30 years only six studies have examined the psychological impact of strabismus in adults. There is no data on a UK population and no validated data with validated questionnaires and relating surgical results to psychosocial outcomes.

Methods: A questionnaire was completed by 407 adults undergoing surgery to correct diplopia). Patients provided data on their severity of their squint (W = 28, N = 20, p < 0.01). This study provides more definitive evidence of whether and how a corrected diplopia can improve these patients’ quality of life.

Findings: There is no correlation pre- or post-operatively between the degree of eye deviation and subjective distress scores on the psychosocial scales. The Derriford Appearance Scale (DAS), the WHOOQL (short form), and the Hospital Anxiety and Depression Scale (HADS) were also used to gain an account of exercise maintenance. The aim of the present study is to follow-up six months throughout their university careers, to look at the predictors of both initiation and maintenance of exercise behaviour. The present paper will include the data for the first year.

Methods: A questionnaire was completed by 407 students, (332 female and 75 male) shortly after starting at the University. Measures include motivational variables derived from the Theory of Planned Behaviour, measures of previous exercise behaviour, anticipated regret, expectations of change, risk/optimism and general self-efficacy. Asking people to increase their intake and then telephoning them can be an effective strategy.

Predicting exercise initiation and maintenance: A longitudinal study of students F. JONES, M. CONNER, University of Leeds, P. HARRIS & C.J. ARMITAGE, University of Sheffield.

Background: Poor levels of physical fitness in young people have been identified as an increasing problem. While research has identified many of the predictors of physical activity, many who start to exercise will soon give up. Models of health behaviour may provide a less adequate account of exercise maintenance. The aim of the present study is to follow-up students, every six months throughout their university careers, to look at the predictors of both initiation and maintenance of exercise behaviour. The present paper will include the data for the first year.

Methods: A questionnaire was completed by 407 students, (332 female and 75 male) shortly after starting at the University. Measures include motivational variables derived from the Theory of Planned Behaviour, measures of previous exercise behaviour, anticipated regret, expectations of change, risk/optimism and general self-efficacy. Asking people to increase their intake and then telephoning them can be an effective strategy.

Discussion: The study indicates that similar variables are relevant to intentions to exercise in both habitual exercisers and non-exercisers. Subsequent analyses will examine these relationships longitudinally and also assess the relationship between intentions and subsequent behaviour in the two study groups. The findings should help further our understanding of exercise initiation and maintenance.
Effects of a self-paced walk on affect and desire to smoke during smoking deprivation

M. KATOMERI, A. TAYLOR, De Montfort University & M. USSHER, St. George’s Hospital Medical School.

Exercising may be useful for aiding smoking cessation, potentially by boosting psychological defences or increasing attentional focus. The present study investigated the effects of a one mile, self-paced, treadmill walk on subjective and objective measures of desire to smoke and affect for only the exercise group, 40 minutes following both conditions. Repeated measures ANOVA’s revealed significant overall interaction effects for time*condition, for both measures. Combining the two groups, baseline analyses revealed that after smoking abstinence, cycling for 10 minutes resulted in increased affect and desire to smoke, for up to 10 minutes. The present study investigated the effects of a one mile, self-paced, treadmill walk on subjective and objective measures of desire to smoke and affect for only the exercise group, 40 minutes following both conditions. Repeated measures ANOVA’s revealed significant overall interaction effects for time*condition, for both measures. Combining the two groups, baseline analyses revealed that after smoking abstinence, cycling for 10 minutes resulted in increased affect and desire to smoke, for up to 10 minutes.

Asthma self-management: The effect of repressive coping and anxiety

E. KEMHAJDJIAN, L.B. MYERS & J. STYGALL, Unit of Health Psychology, University College London.

Background: It is 24 years since Weinberg, Schwartz and Davidson (1979) identified a group of individuals who possess a repressive coping style. ‘Repressors’ are identified by their low scores on self-report measures of anxiety and high scores on measures of distress. Numerous studies have found that repressors dissociate their somatic reactions from their perceptions of distress, with repressors in potentially stressful situations reporting high levels of distress but exhibiting high levels of physiological activity. As few studies have investigated repressive coping in adult asthma patients, the current study investigated self-report and objective measures of asthma in adults with a repressive coping style.

Method: Lung function (objective measure of asthma control), attributions of asthma symptoms, (anxiety and fear of asthma symptoms (self-report measures) were measured in patients at hospital asthma clinics. Asthma physicians rated patients’ anxiety. Repressors (N = 15) were defined using tertiary splits on anxiety and defensiveness. Borderline repressors were omitted and all other participants were defined as non-repressors (N = 23). Two were entered as co-variates. Analyses of variance were performed.

Results: Repressors compared to non-repressors scored significantly lower on objective lung function, and reported fewer asthma symptoms and reported that they were more calm and content, less tense and worried and more in control of their asthma. No repressor attributed any symptom to anxiety. However, asthma physicians rated repressors as more anxious than non-repressors.

Attachment style and symptom reporting: Examining the mediating effects of anger and perceived social support

T. KIDD & D. SHEFFIELD, Staffordshire University.

Background: Attachment style has been linked to social support (Rholes, Simpson & Stevens), anger (Milkulincer, 1998), and health-related variables such as somatic symptoms and social support (Ciechonanowski, Walker, Katon & Russo, 2002; Feeney & Ryan, 1994). The aim of this research was to examine the inter-relationships of these variables with attachment style.

Methods: 191 participants (141 females, 50 males) completed the following questionnaires: The Revised Children’s Revised (Collins & Read, 1990); The State-Trait Anger Inventory – Y2 (Spiegelberger, 1997); The 28-item General Health Questionnaire (Goldberg, 1978) and Perceived Social Support (Blum & Zigmond, 1987).

Findings: Significant differences were found between attachment groups and somatic symptoms F(3, 187) = 3.44, depression symptoms F(3, 187) = 9.95, and anxiety symptoms F(3, 187) = 3.43. Post hoc analysis showed differences were present between secure and preoccupied attachment on social, and depressed outcomes (p < 0.05). Negative correlations were found between perceived social support and social anxious, social secure, and social symptom reporting. Trait anger was positively correlated with somatic, anxious, depressed and social symptom reporting. Trait anger was positively correlated with somatic, anxious, depressed and social symptom reporting. ANCOVA revealed that there were no differences between attachment styles and any of the symptom scales when perceived social support, anger-in, and trait anger were entered as covariates.

Discussion: The results indicate that specific insecure attachment styles are associated with increased symptom reporting, and they suggest that social support and self-mediate the relationship between attachment style and symptom reporting.

A survey of patterns and sources of stress among medical and nursing staff in an Intensive Care Unit setting

J. KINGLY, D. PRATT Manchester Mental Health and Social Care Trust, R. SLATER & M. DIXON, Manchester Royal Infirmary.

Background: The intrinsic nature of the clinical work within Intensive Care Units has been advanced as a major source of stress within this setting. Non-clinical aspects of the work environment and the interface between work and non-work are also important contributors to the stress experiences of healthcare staff. Mapping the levels, patterns and sources of stress is an important first step in planning intervention and the levels of distress among healthcare professionals. The aim of this research was to determine the inter-relationships of these variables with attachment style.

Methods: A survey of medical and nursing staff (N = 184) from an adult ICU were invited to participate, anonymously, in a self-report study of stress experiences. Fifty-three per cent of staff chose to participate. A number of measures were used – namely the General Health Questionnaire (GHQ 12), the State-Trait Anxiety Inventory (STAI) and an adaptation of the Relationship Questionnaire for Junior Hospital Staff (SMUJH). Relationships between the psychological measures and responses to the GHQ were examined.

Results: GHQ scores indicated high levels of distress in each staff group, with a trend to higher levels among junior staff. State anxiety scores were also higher among less experienced staff. Levels of stress showed some interesting differences between medical and nursing staff. Shift patterns were also a predictor of stress. Negative effects of work requirements on non-work life experiences were particularly identified by medical respondents.

Conclusions: Overall, the levels of objective psychological distress were high and could not be accounted for solely in terms of high but transient state anxiety. Sources of stress varied somewhat between professions. Professional support or training interventions need to take these findings into account. Survey results were fed back for internal consideration and discussion with service commissioners and have been used to enhance professional training support for junior nursing staff. A larger-scale survey of sources of stress experienced by Critical Care medical staff is being proposed.

Patients’ beliefs about the causes of their SLE, RA and OA

A. KIRK, D.A. ISENBERG, M. SHIPLEY & S.P. NEWMAN, University College London.

Current understanding of Systemic Lupus (SLE), Rheumatoid Arthritis (RA) and Osteoarthritis (OA) remain unclear. Both rheumatology and psychology text books and information booklets stress that, as yet, there are no answers as to the cause of these conditions. It has been reported that individuals engage in spontaneous attempts to explain events (Wong & Wiener, 1981) and when confronted with a diagnosis there is a powerful inclination to find a cause (Bulman & Wortman, 1977). This cross-sectional study of 286 patients examined the perception of causes (IPQ Causes Subscale of SLE (N = 103), RA (N = 101) and OA (N = 82). Besides the IPQ, other measures included the Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983), the HADS (Zigmond & Snaith, 1983), the Brief COPE (Carver, 1997) and Escape/ Avoidance scale from the IPQ. Groups were classified by cluster analysis of their causal beliefs and group differences analysed by ANCOVA. All groups were classified as repressors, with no distinct causal beliefs from RA and OA. With the SLE group those who believed that stress caused their illness were more anxious (p < 0.05), used more drugs (p < 0.001), and had more social disengagement as a coping strategy. RA patients who believed stress was a cause were significantly more depressed (p < 0.05) and cope differently. The OA group which endorsed chance as the cause of their illness were significantly less accepting of their situation. Overall, the importance of stress as a cause or stress is associated with lower psychological well-being. This study demonstrates the importance of causal beliefs on coping and psychological well being in arthritis patients.

The application of the Stages of Change model to promote treatment outcome in the management of chronic pain


Background: The management of chronic pain is a challenge for the individual as well as health care professionals. Evaluation of treatment effectiveness is of immense value in applied pain research for theoretical, clinical and financial reasons. Psychological input to pain services take many forms (including psycho-education, consultation-liaison, and group work). This paper presents an evaluation of a structured multidisciplinary Pain Management Programme (PMP) based on psychological principles and the Stages of Change model, over a single year.

Method: All patients on the PMP completed the Pain Coping Strategies Scale (PCSS). Patients were allocated to the Stages of Change model groups based on the results of the PCSS. This research involved four groups: pre-treatment (P), Hospital Anxiety and Depression Scale (HADS) and Health Status Questionnaire (SF-36) at pre-treatment, at course end and at follow up. One-hundred-and-eight patients returned the questionnaires.

Findings: Using repeated measures ANOVAs, two variables changed over the period of the course and follow-up. Reinterpretation coping and higher order coping factor cognitive coping were significant (p < 0.05). Multifactor mixed design ANOVAs demonstrated the use of coping self-statements increased linearly over time.
Study
C.D. LLEWELLYN, N. McGURK, Dept. of Oral & Maxillofacial Surgery, Guy’s Hospital, London & J. WEINMAN, Unit of Psychology, Guy’s, King’s & St. Thomas’ School of Medicine.

Background: It is known about the types of expectations patients with head and neck cancer (HNC) have regarding their treatment and recovery, and how these relate to the information supplied by healthcare professionals. The aim of this study was to investigate the types of expectations patients had prior to treatment and the extent to which these had been met and subsequently to investigate the role information played in the development of patient expectations.

Methods: Sixty interviews were conducted with an opportunity sample of 16 participants with HNC (71 per cent female). Ages ranged from 38 to 75 years and time since diagnosis ranged from two to 548 days. Data were analysed using a framework analysis approach (Ritchie & Spencer, 1994). This technique involves identifying recurring and important themes based on a combination of a priori issues, emergent themes and recurring attributes or experiences.

Findings: Respondents described expectations reflecting two subordinate themes: relating to ‘specific’ expectations centred around: side-effects; return to work/resuming roles and aesthetic aspects of treatment and ‘global’ expectations regarding the whole cancer experience. Patients’ expectations were underpinned by expectations being surpassed. A large proportion of patients described the whole experience as being worse than they expected. This was highlighted by a sense of enormity about treatment (surgery and/or radiotherapy) and the recovery process but also due to uncertainty about treatment and secondly, to investigate the role information played in the development of patient expectations.

Discussion: Unrealistic or unmet expectations appeared to be related to psychological difficulties with adjustment at various stages post-treatment. A complex illustration of the informational needs of patients versus the role of information in treatment and recovery emerged in this patient sample. This has consequences for patients quality of life and has clear implications for supplying information on an individual basis.

Application of the person-environment approach to railway safety: How to equip the train driver for the cab

Background: As an application of Health Psychology consultancy to ‘human factors’ aspects of railway driving, to enhance safety, the effectiveness of a four-day training programme to enhance train driver’s performance, through improving self-management skills, is presented. Corresponding skills include managing pressure, trauma, concentration, sleep, communication and self-awareness. Course content is based on the premise that performance is a function of the interdependence between the person and the environment (Lewin, 1954).

Method: A longitudinal single cohort design involving 170 new train drivers was used. Outcomes assessed at pre, mid and post intervention stages comprised self-report measures of stress (PSS: Perceived Stress Scale, Cohen et al., 1993), coping strategies (General Self Awareness Questionnaire, Schwartz, 1998) and a purpose designed enhancing performance questionnaire (Lunt & McAliefe, 2002). This contained quantitative and qualitative questions concerning attitudes to the training, self-ratings of concentration and pressure levels and management of negative pressure. A one-way between subjects ANOVA compared quantitative responses. A thematic analysis based on grounded theory was made of qualitative replies.

Findings: Nearly 80 per cent of drivers believed that the training both improved their concentration and reduced their tendency to make errors (e.g. Signals Passed at Danger). Statistically significantly more drivers were able to manage pressure (GSAQ means: 14.75 (pre), 17.94 (post), p < 0.001), through lifestyle changes concerning exercise, sleep strategies and relaxation.

Discussion: Programme effectiveness will be explained in terms of maximising person-environment fit (French, Caplan & Harrison, 1992). The efficacy of Health Psychology interventions in improving railway, and consequently, public safety will be demonstrated.

The use of reliever medication in asthma: The role of negative mood and symptom reports
J. MAIN, R. MOSS-MORRIS & R. BOOTH, University of Auckland, A.A. KAPTEIN, University Medical Centre & J. KOLBE, Greenlane Hospital Auckland.

Background: Research suggests that up to one third of patients have reduced the perceived necessity of their reliever medication. There is some evidence that overuse of reliever medication is related to psychological distress or negative affect. It has been suggested that negative affect influences individuals’ perceptions of the seriousness of their asthma and motivates them to use more medication. The aim of this study is to investigate whether the number of symptoms an individual associates with asthma is related to negative affect, perceived asthma severity and the use of reliever medication.

Methods: 42 adult asthma patients completed a daily questionnaire over seven consecutive days. The questionnaire measured negative affect and the number of different symptoms patients associated with their asthma. These symptoms included those typical of asthma, as well as non-specific somatic and distress symptoms. Subjects were also asked to record their daily use of reliever medication and their peak flow values. Data were then analysed using hierarchical regression analyses.

Findings: Data analysis demonstrated that, even when controlling for lung function, both asthma symptom labelling (p < 0.005) and negative affect (p < 0.01) were related to reliever use.

Discussion: A mediation model suggested that negative mood leads patients to associate a wide range of non-specific symptoms with their asthma, thereby altering the perception of the severity of the asthma, which in turn influences their use of reliever medication. The results of this study are discussed in relation to asthma self-management strategies.

The emotional impact of human papillomavirus (HPV) testing in women with abnormal cervical smear test results

Context: Concerns have been expressed about the potential of HPV testing to cause considerable distress to women who learn they have the virus. This is the first population-based assessment of anxiety in women undergoing HPV testing, following abnormal smear test results.

Method: State anxiety, distress and concern about smear test results were assessed within two weeks of receipt of the result and compared across four groups of women: those receiving abnormal smear test results, tested for HPV and found to be (a) HPV positive (N = 327), (b) HPV negative (N = 300), and two groups that were not tested for HPV: those who received (c) an abnormal smear test result (N = 104) and (d) a normal smear test result (N = 176).

Results: Women with abnormal smear test results who tested HPV positive were significantly more anxious, distressed and concerned about their test results than the other groups, with state anxiety levels approaching clinical significance. Two variables independently predicted state anxiety in HPV positive women: the perceived risk of developing cervical cancer, and, not understanding the meaning of the smear test result.

Conclusion: In the short term, informing women with an abnormal smear test result that they were HPV positive was associated with high levels of anxiety. There was no evidence that receipt of an HPV negative result was reassuring in women with an abnormal smear test result. Studies are now needed to determine whether such high levels of anxiety can be avoided or reduced by increasing women’s understanding of the meaning of an HPV positive result combined with an abnormal smear test result.

Osteoarthritis, identity and coping: An interpretative phenomenological approach
A.L. MANDEVILLE, J.A. SMITH, K. MULLIGAN & S. NEWMAN, University College London.

Background: Osteoarthritis (OA) is a common painful disease of the joints affecting 15 per cent of the population age 55 or above (Yelin 1992, McKinlay et al., 1995). The aims of this study were to investigate whether the number of symptoms an individual associates with OA is related to negative affect, perceived OA severity and the use of reliever medication. The emotional impact of human papillomavirus (HPV) testing in women with abnormal cervical smear test results.
Emotional disclosure and health: The role of emotional intelligence
F. MATTHEWS & G. KINMAN, University of Luton.

Background: Research suggests that emotional intelligence can be an autonomic nervous system activity, immune functioning and physical health.

Methods: The study used self-reported measures of emotional intelligence, health and emotional disclosure. Participants were informed not to discuss their emotions in the test, with negative consequences for their health. Significance was set at p < 0.05.

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Results: Emotional intelligence was positively correlated with health outcomes. Emotional disclosure was found to be associated with improved health outcomes. The results suggest that emotional intelligence and emotional disclosure are important factors in determining health.

Conclusion: The study highlights the importance of emotional intelligence and emotional disclosure in maintaining health.

Predicting infant feeding intentions and behaviours using an extended Theory of Planned Behaviour: Utility of moral norms, descriptive norms and self identity

Background: This study utilised an extended version of the Theory of Planned Behaviour (TPB; Ajzen, 1991) to investigate the factors that influence the infant feeding choice of primiparous women. The predictive utility of additions to the model (descriptive norms, moral norms, and self-identity) were also examined.

Methods: Using the 1998 Department of Environment, Transport and the Regions (DETR) data, a resamplification of deprivation was identified in Birmingham, Bradford, Leeds, and two London boroughs. A total of 411 women from these areas were recruited into the project. 301 participants returned completed questionnaires (response rate 73 per cent). These participants subsequently provided information regarding how they had fed their baby at discharge from hospital (N = 236), two weeks (N = 236) and six weeks (N = 232).

Findings: The TPB provided good prediction of intentions (R2 = 0.60; attitude, subjective norm and perceived behavioural control significant (p < 0.001)). Moral norms and descriptive norms, explained additional variance in intentions (p < 0.001). In addition, self-identity explained significant additional portions of the variance in intentions (p = 0.001) and the TPB variables. The TPB also predicted behaviour well (83 per cent correctly classified at discharge, 82 per cent correctly classified at six weeks, 71 per cent correctly classified at six weeks). Intention, not Perceived Behavioural Control (PBC), significantly predicted behaviour at discharge and two weeks (p < 0.001), whereas both PBC and TPB variables were predictive of behaviour at six weeks (p < 0.05).

Discussion: These findings suggest the need for a broader conception of the active influence of intentions, and add to a growing body of literature supporting the inclusion of self-identity in the TPB.

Symbolic diversity, reporting and adherence in a group of patients taking anticoagulation treatment
J. MILLER, University of London & CHCR University of Brighton, R. HORNE, CHCR University of Brighton & J. WEINMAN, University of London.

Background: This study utilised an extended version of the Theory of Planned Behaviour (TPB; Ajzen, 1991) to investigate the factors that influence the infant feeding choice of primiparous women. The predictive utility of additions to the model (descriptive norms, moral norms, and self-identity) were also examined.

Methods: Three cross-sectional studies were carried out. Two samples of patients were recruited from an anticoagulation outpatient clinic (N = 73, N = 143) and one from GP practices (N = 111). Patients completed questionnaires assessing their illness perceptions (IPQ Moss-Morris et al., 2002) and treatment adherence (MARS-S Horne et al., in preparation). Analysis of Covariance was used to determine differences in adherence to treatment between symptomatic and asymptomatic patients.

Results: Patients on warfarin treatment and who report symptoms related to their medical condition were less likely to be adherent to their treatment. Symptomatic patients were more likely to perceive warfarin more negatively, and to report a result of their illness and report greater emotional distress towards their illness. Symptomatic patients also had more valid reasons for not taking their treatment and reported more negative, depression and negative affectivity.

Discussion: Interventions based on the CSM to improve warfarin adherence may be especially effective in patients who are symptomatic.

The British Psychological Society 2004 Proceedings
Using implementation intentions to control stress. Can we use internal cues to control behaviour? S. MILNE, University of Bath, P. GOLLWITZER, New York University, Universität Konstanz & P. SHEERAN, University of Leeds.

**Background:** Implementation intention (II) research tends to use an external cue for the critical situation at which behaviour will occur. Health psychologists are often interested in controlling behaviours where the external situations may be hard to define. This study compared an II where the critical situation is an internal state with a traditional II.

**Method:** Participants were randomly assigned into three groups: control, internal II and external II. All participants completed a questionnaire, including the perceived stress control technique to control the following week. The internal II group made the action plan ‘When I feel x (e.g. my heart pounding) I will do y (e.g. visualisation)’. Behaviour (using the technique) and perceived stress were measured a week later.

**Findings:** An ANOVA showed a significant effect of condition on behaviour (F (1,97) = 10.369, p = 0.001). Post-hoc analyses revealed significantly higher technique use in the control group and both II groups but no significant differences between the different IIs. A 2x2 split-plot ANOVA showed a significant times condition interaction for depression (F (2, 97) = 7.893, p < 0.001).

**Discussion:** An II based on an internal state was as effective as an external cue in changing behaviour. This change in behaviour successfully reduced perceived stress and had implications for behaviours where an external cue is not readily identifiable.


**Background:** Out-patient appointments for RA patients requiring drug monitoring often result in little or no intervention (Hewlett et al., 2000). A programme for oral anti-coagulation therapy demonstrated successful patient self monitoring and improvement in treatment-related quality of life (Cromheeke and improvement in treatment-related quality of life measures (Cromheeke et al., 2000).

The present study evaluated whether following training, RA patients maintained on Methotrexate can successfully monitor their blood results and symptoms and initiate an out-patient appointment when necessary.

**Method:** 50 RA patients on Methotrexate attended a two-hour training programme which emphasized monitoring of blood results and symptoms. Patients were sent and assessed their blood results at the time of acute gastrointestinal infection also themselves too hard and then collapse at the RAC and analysed with two-way ANOVAs. Measures were taken on six-point Likert scales by half. Relative risk reduction was communicated as ‘… is reduced by 50 per cent’.

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**Results:** Participants completed the second questionnaire and 14 per cent of these met Rome criteria for IBS. A series of ANCOVAs controlling for age and gender showed that patients with IBS reported higher perceived stress scores, negative perfectionism scores and a greater variety of situational triggers. Smokers with high S scores were more likely to report craving cognition in terms of reward (versus avoidance of a negative state).

**Discussion:** Different traits relate to different smoking variables, suggesting that the inconsistency in the present findings could partly be attributable to dependent variable choice. The implications of the study for the assessment of relevant individual-level variability will be discussed.

**Effects of baseline information on communication strategies in the domain of health.**

H.M. NATTER & D.C. BERRY, University of Reading.

**Background:** Two experiments investigated effects of improved presentation formats of absolute risk reductions. It was predicted that including the baseline risk (Experiment 1) and presenting both relative and absolute group (392x270) Findings: Over a four-month period a mean score of 95 per cent correct judgements was achieved. Analysis revealed most errors were only made in month one with the majority of participants producing 100 per cent correct assessment of blood results in months two, three and four. Patient satisfaction with the programme was high.

**Discussion:** Following training RA patients on Methotrexate can successfully monitor their blood results and appropriately initiate follow-up appointments. Participants have a better understanding of their treatment process and greater involvement in their care. Further development of the programme will determine the cost-effectiveness of this alternative delivery of care.

Personality and smoking: Applying the Five Factor Model N.G. MOGHADDAM & E. FERGUSON, University of Nottingham.

**Background:** Examination of the associations between personality dimensions, smoking variables and smoker status may help to elucidate the aetiology of nicotine dependence and contribute to understanding of individual treatment response. Empirical investigations of the personality-smoking relationship have been inconclusive, and few studies have used contemporary conceptualisations of personality.

The present study explored the relationship between the Big Five (BS) personality dimensions and smoking behaviour in a sample of 139 smokers and former-smokers.

**Methods:** Participants completed a questionnaire comprising a 50-item measure of the BS trait dimensions, variance scores of dependence and craving state, and an assessment of smoker history/hypotype (composed of qualitative and instrumental items).

**Results:** Hierarchical regression analyses indicated that four of the five personality dimensions were associated with the assessed smoking variables. Smokers with low Emotional Stability (ES) were more likely to exhibit greater dependence on nicotine. Smokers low in ES, Agreeableness (A), Conscientiousness (C) were more likely to report higher levels of craving. Smokers low in Psychoticism (P) and ES were more likely to report craving reduction behaviour, and to endorse a greater variety of situational triggers. Smokers with high S scores were more likely to report craving cognition in terms of reward (versus avoidance of a negative state).

**Discussion:** Different traits relate to different smoking variables, suggesting that the inconsistency in the present findings could partly be attributable to dependent variable choice. The implications of the study for the assessment of relevant individual-level variability will be discussed.

Depressed and anxious mood in patients who have been admitted to hospital with heart failure: The role of illness beliefs K. MULLIGAN, University College London, P. HARGRAVE, Whittington Hospital, London, A. ZAPHIRIOU, Imperial College London, S. HARDMAN, Whittington Hospital & University College London & S.P. NEWMAN, University College London.

**Background:** Heart failure is a major health problem with profound detrimental effects on psychological well-being. Depression has been found to be associated with greater morbidity and mortality in heart failure. This study evaluated the beliefs of patients with heart failure and their inter-relationships with mood.

**Methods:** 68 patients who had been admitted to hospital with heart failure were assessed immediately prior to discharge on depression and anxiety (HADS) and illness beliefs (IPQ).

**Findings:** 19 per cent of patients scored within the probable clinical range (> 11) for depression and 25 per cent for anxiety. Correlations indicated that greater symptom severity (p < 0.005), perceived control consequences (p < 0.001), and belief in a longer timeline (p < 0.005) were associated with higher depressed mood scores. Smokers with high S scores were more likely to report craving cognition in terms of reward (versus avoidance of a negative state).

**Discussion:** Depression and anxious mood was associated with patients’ beliefs about their heart failure. Illness beliefs could be targeted in interventions aiming to improve depressed mood in patients with heart failure.
Are general and specific self-efficacy beliefs related to self-examination behaviour? M.C. NEIPP, S. LOPEZ-ROIG, M.C. TERROL, M.A. PASTOR & J. ROODPH. Miguel Hernandez University, Spain & M. JOHNSTON, University of Amsterdam.

Background: Following surgical treatment, breast cancer patients worry about a possible recurrence. Breast self-examination (BSE) is a way to detect a possible lump. Bandura’s Social Cognitive Theory predicted that women would be more likely to engage in BSE if they had higher Self-efficacy beliefs. The aim is to assess relationships between women’s self-efficacy and breast self-examination behaviour currently and predictability over time.

Method: The patients were 31 breast cancer patients attending standard follow-up protocols for the post-surgical care in an outpatient unit in Alacant (Spain). They had had unilateral mastectomy and were currently free of disease. They completed: (a) General Self-Efficacy Scale (GSES; Baessler & Schwarzer, 1996, preliminary validation Martin-Aragon, Pastor, Lopez-Roig, Rodriguez-Martin & Terol, 1997); (b) specific self-efficacy questions; and (c) assessment of frequency of BSE. Data were collected at three times.

Results: Women who carried out breast self-examination had more general self-efficacy (efficacy in managing difficult events) (t = –2.84, p < 0.003) and gender were greater specific self-efficacy (efficacy in carrying out a core self-examination and in finding a lump in their breasts) (t = –5.87, p < 0.001). Moreover, specific control between BSE and examination with a better predictor of breast self-examination behaviour than GSES at first interview (R2 = 0.5, p < 0.001) and across time (R2 = 0.17, p = 0.04, p < 0.001), (R2 = 13.8, p = 0.38, p < 0.001).

Discussion: The results confirm the hypothesis that self-efficacy, especially specific self-efficacy, predict BSE. It may, therefore, be possible to identify patients in likely to engage in BSE.

Perceived control in childbirth: Implications for the prevention of post-partum post-traumatic stress disorder K.V. NEWBY & O. DUNN, Health Services Research Centre, Coventry University.

Background: This study aimed to provide evidence to support a theoretical relationship between loss or lack of perceived control over the outcomes of childbirth related to mother-child survival and well-being and the post-partum development of PTSD.

Methods: 11 women between six and 16 weeks postpartum were interviewed about their experiences of childbirth. The participants were identified as having experienced either high or low perceived control (PCON) (Wallston, 1989) during childbirth. Two participants within the low perceived control group had clinically significant symptoms of PTSD. Transcripts were analysed for (a) differences in level of perceived control (t = 2.26, p < 0.05) and (b) aspects of childbirth that were perceived. Aspects of childbirth that were perceived.

Results: On the basis of the findings, coping strategies during birth and the support provided by health professionals/partners. These suggestions not only have the potential to impact upon the prevention of post-partum PTSD but also to positively impact upon participants’ overall satisfaction with the childbirth experience.

Discussion: This investigated the sexual behaviour and attitudes of adolescents.

Methods: A cross-sectional survey of 381 white and Asian adolescents aged 13 to 18 years old examined reported sexual activity, contraceptive use, and attitudes towards the provision of sex education and sexual health services.

Results: A significant relationship was found between BSE and participants’ attitudes and perceptions – adolescents reporting higher levels of perceived control were more likely to report having ever had sex than Asian adolescents (t = 6.112, p = 0.013). Boys reported finding sex education significantly more enjoyable than girls (t = 8.218, p = 0.0004) of friends (t = 8.644, p = 0.0001) of friends.

Discussion: This study investigated the sexual behaviour and attitudes of adolescents.

Method: Fagerstrom Nicotine Test was used to detect smokers (N = 24) and non-smokers (N = 24) among the university students. All participants were primed, using Scrambled Sentence Task, either with smoking or neutral words prior to a modified Stroop task. In this task, they received one of the four orders of word presentation with categories of smoking, neutral, positive and negative expectancy. After those implicit measures, Smoking Consequences Questionnaire (SCQ) was used as explicit measure of smoking outcome expectancies.

Results: Analysis revealed a main effect of Group (F (1,36) = 5.619, p = 0.029) and gender (t (24) = 2.236, p = 0.026) and also sex education significantly more enjoyable than girls (t (19) = 8.218, p = 0.0004) of friends (t = 8.644, p = 0.0001) of friends.

Discussion: This study investigated the sexual behaviour and attitudes of adolescents.

Conclusion: Results are important in understanding the role of automatic and implicit cognitive processing in addiction.

Psychological outcome and quality of life following liver transplantation: A controlled, prospective, single-centre study R.E. O’CARROLL, University of Stirling, M. COUSTON, J. COSSAR, G. MASTERTON & P.C. HAYES, Scottish Liver Transplant Unit, Edinburgh Royal Infirmary.

Background: Liver transplantation is a well-established treatment for liver failure. Prolongation in survival is accepted, but the long-term effects of liver transplantation on cognitive and psychological outcome are unclear.

Methods: In a prospective, single-centre study, neurological and psychological data were prospectively collected in 164 patients who were assessed for liver transplantation. Memory impairment, psychomotor slowing, anxiety and depression were commonly observed.

Results: Severity of liver disease at assessment was significantly associated with slowing of reaction time. Memory impairment distinguished those who were not listed for transplant because of illness severity. One year post transplant, follow up data from extended patients revealed significant improvement in most psychological domains relative to both healthy comparator and pre-transplant chronic liver disease who were not transplanted. Immunosuppression (cyclosporin versus tacrolimus) did not have differential effects on quality of life, fatigue or affective status, although those taking cyclosporin showed greater...
improvements at one-year follow-up on simple and choice reaction times. Elevated levels of anesthetic-plasma-transplantation score were associated with poorer psychosocial outcome one year post transplant. Severity of liver disease was not related to psychosocial outcome one year. Good psychological outcome at one year was maintained at three-year follow-up.

Intentions to use hormonal male contraception: The role of message framing
D.B. O’CONNOR, University of Leeds, E. FERGUSON, University of Nottingham & R.C. O’CONNOR, University of Strathclyde.

Background: A hormonal male contraceptive is likely to be soon available. Little research has investigated the factors that may influence intentions to use this form of contraception. The present study aims to investigate the effects of goal framing on intention to use hormonal male contraception.

Method: A two-way, between-participants (N = 278) design was used. Participants were randomly assigned to one of two conditions (gain versus no gain). Twenty eight participants then indicated their intention to use the daily ‘male pill’ and an injection delivery method (lasting up to two to three months).

Results: The framed message participants were then asked to indicate their intention to use the daily ‘male pill’ and an injection delivery method as significantly more likely than those in the gain frame condition. No gender effects were observed.

Discussion: This is the first study to investigate the impact of message framing on intentions to use male hormonal contraception. The results have important implications for how information is presented about this novel male method and are consistent with Levin et al.’s typology of framing effects.

There’s nothing so practical as a theoretical integration
S. ORBELL & M. HAGGER, University of Essex.

Background: Relatively few studies have attempted to compare or integrate different theoretical approaches. Such an approach may lead to greater parsimony in our theorising and, importantly, may provide clearer implications for practitioners. The aim of the present study was to examine the role of four theoretical accounts of attendance/non-attendance: (a) an avoidant response to emotional distress; (b) a reasoned action (Fishbein, 1975); (c) a planned behaviour (Ajzen, 1985); and (d) a coping response to illness threat (Fishbein, 1975); (c) a planned behaviour (Ajzen, 1985); and (d) a coping response to illness threat (Fishbein, 1975). This study therefore involves an investigation of the effects of goal framing on intention to use hormonal male contraception.

Method: Two scenarios were developed and were pre-randomised into a ‘male pill’ and an injection delivery method (lasting up to two to three months).

Results: The framed message participants were then asked to indicate their intention to use the daily ‘male pill’ and an injection delivery method as significantly more likely than those in the gain frame condition. No gender effects were observed.

Multidimensional health locus of control and response to kidney transplantation
A. ORR, P. FINN, P. BRITTON, University of Teesside & M. HOLMES, Leeds Metropolitan University.

Background: This study investigates the role of locus of control of kidney transplant recipients with functioning and failed grafts and their satisfaction with the service. The effect of social support and adherence to immunosuppressants is also assessed.

Multidimensional health locus of control theory (Rotter, 1952) attempts to define the extent to which individuals attribute outcomes to their own uncontrollable factors or to external factors. Social support was assessed by measuring the amount of support received and the perceived usefulness of such support. Adherence to immunosuppressants was assessed by monitoring pill counts, hospitalisation rates and percentage of patients' adherence using the Morisky measure (Morisky et al., 1986).

Findings: In this sample the internal health locus of control was associated with the least number of hospitalisations and the highest percentage of patients taking their medication regularly. There was a significant difference between groups in terms of the number of professional boundaries the ICPs were found to have. Phase 3: The study found that there was a significant difference between groups in terms of the number of professional boundaries the ICPs were found to have.

Compliance of health care professionals with Integrated Care Pathways
D. PARKER & T. CLARIDGE, Dept. of Psychology, University of Manchester.

Background: This paper will describe a three-stage investigation of the compliance of health care professionals with Integrated Care Pathways (ICPs), which are documents encouraging standardised care of patients with specific conditions. The first stage investigated the number of professional boundaries the ICPs were found to have. Phase 3: The study found that there was a significant difference between groups in terms of the number of professional boundaries the ICPs were found to have.

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Supporting children of cancer patients: Staff attitudes, confidence and current practice
L.E.L. PETTIGREW, J. ANDERSON, Beatson Oncology Centre, L. GREEN, Cancer Services, WELSH, Beatson Oncology Centre.

Background: The diagnosis and treatment of a parent with cancer can be a stressful experience for the whole family. Evidence suggests that a third of children will experience significant distress and that anxiety is related to parental adjustment and quality of family communication about the illness. Medical and nursing staff can play a vital role in ensuring the needs of children are not minimised or overlooked either through direct support or referral to existing and new specialist services. The aim of this study was to explore the current practice, attitudes and confidence of staff in dealing with their patient’s children.

Methods: A questionnaire was distributed to staff working at the Beatson Oncology Centre, a regional cancer centre, and to two allied hospices. One-hundred-and-twenty-four questionnaires were returned from doctors (N = 26), nurses (N = 58), professionals allied to medicine (N = 36) and others (N = 34).

Findings: The majority of staff (92 per cent) had not received any training relating to working with children who have a family member with cancer. Whilst most staff (76 per cent) will ask patients if they have children, fewer record these details (59 per cent) and fewer still would consider speaking directly to the children (26 per cent). Few staff felt confident about assessing how patient’s children were coping (17 per cent) or knowing when it would be appropriate to refer to a specialist service (28 per cent).

Discussion: Clinical Health Psychologists offer support to children and their families rely on primary caregivers for appropriate referral. However most staff lack specific training and many do not feel confident about assessing children’s difficulties. Such training is crucial to meet the psychosocial needs of cancer patients with children.

Cancer genetic risk assessment: Does a distraction-based coping intervention reduce distress?
C. HELPS, K. BRAIN, C. WILKINSON, University of Wales College of Medicine, P. BENNETT, Bristol Clinical Psychology Training Programme and K. GRAY, Institute of Medical Genetics, University Hospital of Wales.

Background: The aim of the study was to assess the effectiveness of a written distraction-based coping intervention in reducing distress in women undergoing cancer genetic risk assessment.

Method: Design: Participants were pre-randomised into treatment (distraction leaflet) and control condition and required to complete a postal questionnaire at three time points: upon referral, during the waiting period (four weeks post-referral) and after notification of risk status.

Results: Participants (47 female referrals into the Cancer Genetics Service for Wales (treatment N = 24; control N = 23)) have completed their Time 1 questionnaires and 25 (treatment N = 12; control N = 13) have completed Time 2 questionnaires. Recruitment and data collection is ongoing.
with minimal disruption. Could be integrated into existing NHS services undergoing cancer genetic risk assessment. The individuals to manage intrusive worries when controls.

Discussion: The intervention may help individuals to worry when undergoing cancer genetic risk assessment. The 'self-help' easily accessible nature of the intervention leaflet may offer a low-cost but potentially effective alternative to current psychosocial support which could be integrated into existing NHS services with minimal disruption.


Background: The Breastfeeding Best Start (BBS) study was commissioned by the Department of Health in 2001 to ask whether midwives could be trained to deliver a hands-off intervention to primiparous mothers wishing to breastfeed within 24 hours of delivery, and whether this new protocol increased breastfeeding duration. This project investigates midwives’ perceptions of the BSB protocol tested and their breastfeeding.

Methods: Participants were 170 hospital and community-based midwives, midwifery care assistants and midwifery managers. Data collection included open-ended anonymous questionnaires, focus groups and semi-structured interviews. Interpretative phenomenological analysis (IPA) was employed to explore individuals’ beliefs and experiences.

Results: Findings across all three methodologies confirm midwives wanted to promote breastfeeding but believed the government does not provide sufficient resources to do so. Minimal staff training limited their confidence. They felt midwives need a clear and specific plan of action within midwifery guidelines and training. They also identified the need for more breastfeeding training and more effective promotion of breastfeeding within midwifery education. This study targeted midwives’ perceptions of the BSB protocol tested and their breastfeeding.

Discussion: The use of three different qualitative methods enabled an in-depth analysis of midwives’ experiences, and triangulation of data collection and multiple analysts gave added validity to the findings. As a result of this investigation it is clear that further research is needed to improve health behaviours driven by autonomous motivation and for individuals lacking in confidence to reduce stress predicted appropriate implementation intentions may be explained by illness representations or coping procedures? Method: 38 RA outpatients were randomly allocated to treatment or control groups. The treatment group was offered a group self-management programme. Participants were assessed at baseline, pre-intervention (six weeks), post-intervention (12 weeks) and follow-ups (six and 12 months). Assessments included self-report questionnaires, tender joint score and blood tests.

Findings: Illness representations and coping procedures were found to mediate the relationship between experimental condition and future health outcomes (pain, disability, emotional distress, social function, quality of life and self-efficacy).

Discussion: Results are discussed in relation to the published literature, methodological limitations are acknowledged, and theoretical and clinical implications delineated and areas for future research identified.


Background: Implementation intentions involve the planning of when, where and how a behaviour will be performed. Health-intervention studies typically involve the request for individuals to form such plans but fail to account for people in the control group who form spontaneous plans. This study compared those who asked to form implementation intentions, those using them without instruction (spontaneous formers) and those who did not specify a plan.

Methods: 225 participants were asked to choose a health behaviour that they intended to perform once in the next two weeks and were asked to form implementation intentions.

Findings: A variety of behaviours including registering with a doctor (72 per cent) were chosen. Of those not asked to form implementation intentions, 52.8 per cent did so of their own accord. Chi-square analyses showed that while there were no differences in the success of spontaneous formers and those asked to form implementation intentions, both outperformed a control group who were asked to form spontaneous intentions.

Discussion: Using implementation intentions, as an intervention, would be most beneficial for health behaviours driven by autonomous motivation and for individuals lacking in confidence to reduce stress.

Quality of life and breast cancer treatment: Patient reported side effects after two to three years of adjuvant tamoxifen M.H. PRICE, L.J. FALLOWFIELD, P. MURRAY, R. DRAY, A. BRIGHTON, R.C. COOMBES, L. GIBSON, Medical Oncology, Charing Cross Hospital, J. BLISS & E. HALL, Institute of Cancer Research, London.

Background: The benefits of hormone therapy in prevention, adjuvant and advanced breast cancer are well documented and regarded as less toxic than many other cancer treatments. However, recent research suggests that clinicians may underestimate the adverse effects of these treatments may have on patient’s quality of life.

Discussion: The standard adjuvant treatment recommendation for post-menopausal women with oestrogen receptor positive tumours is for them to receive five years of tamoxifen, a selective oestrogen receptor modulator. The study provided evidence of both patients and doctors roles. The patient reported endocrine side effects of women who have being taking tamoxifen for two to three years.

Method: In this multi-centre trial, women with primary breast cancer treated surgically and with adjuvant tamoxifen for two to three years, are randomly allocated to either continuing tamoxifen or exemestane, a novel aromatase inhibitor, to compete a standard of five years endocrine treatment. Five-hundred and twenty-four patients were recruited to the Quality of Life (QOL) sub-protocol were assessed at baseline using the FACT-ES questionnaire, a well-validated measure incorporating an endocrine subscale specifically developed for use in determining the impact anti-oestrogen therapy has on patient quality of life.

Results: Endocrine subscale data indicated 38.5 per cent of patients reported having hot flushes ‘quite a bit’ or ‘very much’. Further frequently reported symptoms included: weight gain (34 per cent), night sweats (27 per cent), loss of interest in sex (22.1 per cent), bloated-ness (13.4 per cent), breast sensitivity (12.4 per cent) sleep difficulty (19.3 per cent), loss of energy (15.5 per cent), lack of energy (13.8 per cent) and mood swings (10.7 per cent).

Discussion: Comprehensive evaluation of quality of life and patient reported endocrine side effects of hormone therapy is vital to help determine supportive interventions needed to accompany the most efficacious treatments and aid decision-making.

Alcohol consumption as a coping mechanism after MI: The role of illness representations, anxiety, depression and stress S. PULLEN, J. BATH, J. HARRISON, M. GILES & L. EARLL, Health Psychology Dept., Gloucestershire Royal Hospital.

Background: The study aimed to assess the influence of illness representations, anxiety, depression and stress upon post-MI alcohol consumption. The study adopted Leventhal’s Self-Regulatory Model of Illness Behaviour (SRM) (1980). A qualitative design was used to explore the associations of illness representations, anxiety, depression and stress upon post-MI alcohol consumption. A qualitative design was used to explore the relationship between psychological stress and alcohol consumption in further detail and also to investigate the patient’s beliefs about the stress management component of the course.

Methods: Statistical analyses were performed upon the pre-existing database of 349 patients who had completed the Time One (Before programme) cardiac rehabilitation questionnaire. The questionnaire included the Illness Perception Questionnaire (IPQ), Health Anxiety and Depression Scale (HADS) and measures of psychological stress and alcohol consumption. Semi-structured interviews were carried out with nine cardiac rehabilitation patients. IPA was performed upon the verbatim transcripts of these interviews.

Discussion: The role of illness representations, anxiety, depression and stress upon post-MI alcohol consumption. A qualitative design was used to explore the relationship between psychological stress and alcohol consumption in further detail and also to investigate the patient’s beliefs about the stress management component of the course.

Quality of life: The role of illness representations, anxiety, depression and stress in further detail and also to investigate the patient’s beliefs about the stress management component of the course.

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the chronic nature of their heart condition and also to provide stress management strategies.

The understanding of secondary prevention in cardiac rehabilitation


Background: The study aimed to evaluate the understanding of secondary prevention among a sample of patients undergoing a hospital based cardiac rehabilitation programme. The National Service Framework (NSF) for Coronary Heart Disease (CHD) outlines the need to implement proven secondary preventive measures (Department of Health 2000). The challenge of transferring these experiences in CHD care is particularly difficult because of the complexity of treatments. Psychological factors are important predictors of adherence in CHD, outlined with the NSF. They can also be a barrier to making the lifestyle changes necessary to reduce cardiac risk (Pg 2, Standard 7). Individuals are believed to hold complex views about their illness and medication, which are thought to determine treatment adherence (Petrie & Weinman, 1997). The study adopted Leventhal’s Self-Regulatory Model of Illness Behaviour (SRM) (1980). A qualitative design was used to assess the patients’ illness and medication beliefs in relation to secondary preventive medication.

Methods: Semi-structured interviews were conducted with eight patients attending an eight week follow-up of the cardiac rehabilitation programme. The sample consisted of seven men and one woman with ages ranging from 56 to 72 years. The technique of IPA was used to analyse the interview transcripts.

Findings: The major themes emerged from performing IPA upon the transcripts included the following: ‘Searching for answers’, ‘Positive outlook’, ‘Relationship with health professionals and medical history’ and ‘Individual and medicinal context’.

Conclusion: It is essential that patients understand that secondary prevention of CHD relies upon a combination of cardiac medication and their own health-related behaviours. The four major themes of this study highlighted patients’ fundamental recognition of the controllability of their condition.

Between acculturation and ambivalence: Knowledge of genetics and attitudes towards genetic testing in a consanguineous Bedouin community

A.E. RAZ & M. ATAR, Ben-Gurion University of the Negev.

Background: The Bedouins of the Negev (southern part of Israel) are a community at risk for specific medical conditions, such as consanguinity and congenital anomalies as a result of frequent consanguinity (partially patrilateral parallel cousin Marriage) and under-utilisation of prenatal genetic tests (particularly secondary prevention of CHD). Objective: To assess the knowledge and attitudes of Bedouin schoolchildren and their teachers towards genetic testing, outlined with the NSF. Carrier-matching programme aimed at reducing the prevalence at birth of genetic diseases.

Methods: A sample consisted of 61 teachers and 40 schoolchildren as part of guided interaction in small groups, conducted in Bedouin schools between 1999–2001.

Results: Significant knowledge and attitude towards genetic testing between students and teachers was found to have a statistically significant effect on the interpretation of the general role of genetics programme among students.

Discussion: The difference between teachers and pupils is discussed in the context of the latter’s acculturation, which contradicts tradition and parental authority and can generate ambivalence about genetic testing discussed in the context of the Health Belief Model and the complex interplay of tradition, Islam, cousin marriage and biomedicine.

Prison staff coping with self-inflicted death in custody

L. REGAN, J. BORRILL, R. TEERS & T. CASSIDY, Thames Valley University & The Safer Custody Group, HM Prison Service.

Objective: To explore the incidence of trauma, and the factors that mediate the impact in prison service staff who have dealt with a self-inflicted death in custody in the previous three to seven months.

Design: A survey using interview and questionnaire data collection techniques. A sample of 48 prison service staff who had dealt with self-inflicted death in the previous three to seven months were interviewed and assessed on measures of trauma, problem-solving style, optimism, control and social support. Quantitative analysis shows that approx 38 per cent exhibit clinical level of trauma, with social support being mediated by optimism, problem-solving style, control and level of involvement in the incident. There was a lack of social support, although it did correlate with both problem-solving style and control. Qualitative analysis provides more detailed information on trauma symptoms and suggests that mission failure and dealing with Coroner’s Courts are important aspects.

Conclusion: The prison service is currently working to improve staff performance and it’s national welfare service provides counselling and critical debriefing where resources allow. This research, when complete, will inform the development and future direction of this service.

Perceived stress and mental health among consultants in the north west of England

U. ROUT, Laxmi Medical Centre & R. ROUT, Cambridge University.

Background: Due to frequent changes in the National Health Service in the UK, the medical profession has found itself increasingly under pressure. Whilst research has been carried out on stress among junior doctors, general practitioners, little is known about stress experienced by hospital consultants. The aim of this study was to identify sources of stress, job satisfaction and mental health among consultants in the north west of England.

Methods: Both qualitative and quantitative methods were employed in this research. Thirty consultants were interviewed and a stressors questionnaire was constructed. A package of questions was unacceptable by some consultants and the stressors items were distributed to 200 consultants. One-hundred-and-thirteen questionnaires were analysed by using SPSS (Univariate, Bivariate and Multivariate Analysis were performed).
Results: The top stressors identified were: time pressure, NHS changes, lack of resources, conflict with work, and unpredictable demands, increased expectations from patients and factors not under their control. The consultants were least satisfied with their hours of work, job recognition, and financial reward they get for their work. They were most satisfied with the clinical aspects of their jobs rather than administrative or financial aspects. The data was compared with junior doctors it was found that consultants had better mental health.

Discussion: This finding suggests that stress management is important for consultants and other health care professionals need to be initiated and evaluated. There may be substantial benefits in creating a support network for consultants.

Enabling communication about sexual problems: Views of a therapy team and their clients with multiple sclerosis

R. RUBIN, Canterbury Christ Church University College.

Background: Estimates suggest that up to 70 per cent of men with multiple sclerosis may be impotent, but less than 20 per cent of these patients will ever discuss this with health professionals. The aim of this study was to explore the reasons for difficulties in discussing sexual problems with clients from the points of view of both a Disability and Rehabilitation Team and their male clients with multiple sclerosis.

Methods: A focus group discussion was held with a multi-disciplinary disability and rehabilitation team of ten therapists. 2: Semi-structured interviews were conducted with ten clients of the team. Discussions focused on facilitating discussion of sexual problems between therapist and client. Analysis was thereafter performed using McNiff’s (1993) model (Anon, 1976): P giving permission, L giving limiting information.

Findings: The therapists were concerned at being ‘unprofessional’ if they did not have enough information. They complained about total lack of training. Clients wanted permission to talk about sex, but found it extremely difficult to bring up the topic. Overall, it seemed that whether or not subsequent difficulties were discussed was dependent on the therapist and not the client.

Discussion: These findings suggest that therapists need more training in enabling clients to talk about sex, and in giving sufficient information. Currently, very little time or resources are allocated to this area, which is so crucial to clients’ quality of life.

Introducing a new cross-culturally valid instrument for the exploration of distress in the General population – piloting Bart’s Explanatory Model Inventory (BEMI) K. RÜDELL, K.S. BHUI & S. PRIEBE, Queen Mary University of London.

Background: The varies across cultures making it difficult for health professionals to diagnose and treat it adequately. A cross-culturally valid instrument is needed to comprehensively access individual's perspectives and document them. This pilot study’s aim was to explore the instrument’s ecological and concurrent validity and explore cultural differences in perceptions of distress.

Method: A two-phase design was used to explore perceptions, N = 68 IBD patients were recruited from the functional status of the illness, but we cannot rule out the hypothesis repeated with other non-bowel functional illnesses.

The roles of perceived control and self-efficacy in predicting intentional non-adherence to the insulin-treated diabetes mellitus regimen

E.P. ST. LEEGER, L.B. MEYERS, S.P. NEWMAN, University College London & H. JUREL, University College London Hospitals.

Background: This study aimed to provide further insight into the relationship between self-efficacy, beliefs and other control beliefs within the context of a new behavioural domain, notably, adherence to insulin-treated diabetes mellitus.

Method: A cross-sectional, correlation design was adopted. 85 participants completed five self-report questionnaires, a measure of general self-efficacy, Regimen-Specific self-efficacy (R-S SE), general locus of control, Regimen-Specific perceived control (R-S PC) and Regimen-Specific adherence. Results were Pearson correlations and Multiple Linear Regression. Findings: R-S PC (r = 0.27, p = 0.047) was better at predicting adherence behaviour than the general measures of SE (r = 0.27, p = 0.81) and control (CHLC = 0.01, p = 0.931; PHLC = 0.146, p = 0.203). Hierarchical multiple regression analysis showed that R-S SE explains more of the variance in adherence behaviour than R-S PC (r = 0.27, p = 0.047; r = 0.191, p = 0.142, respectively). R-S SE and R-S PC were significantly correlated with one another (r = 0.575, p = 0.0001). Principal components analysis reported a three-factor model with all factors incorporating both SE and PC items.

Discussion: Regimen-Specific measures of control are more predictive of adherence to insulin-treated diabetes than general measures of control. The two control components were highly correlated in relation to the insulin-treated diabetes regimen although distinctions can be observed depending on the regimen behaviour being measured.

Predicting testicular self-examination for cancer in men: Extending the Theory of Planned Behaviour with masculinity, knowledge and past behaviour

T. SALEEM & L.B. MEYERS, University College London.

Background: Monthly Testicular Self-Examination (TSE) is simple to perform and effective in detecting abnormalities and has been recommended for early detection of testicular cancer. The objective of this study was to isolate predictive factors based on Azjen’s (1985) Theory of Planned Behaviour (TPB) and extending the theoretical model by other predictors that have recently been implicated in TSE behaviour (masculinity, TSE knowledge and past TSE behaviour) to predict men’s intentions to engage in TSE.

Method: 138 men completed a questionnaire measuring the constructs of TPB, masculinity, TSE knowledge and past TSE behaviour.

Findings: Multiple linear regression analysis revealed that the proposed model was more successful than TPB model in explaining variance in intention to perform TSE by explaining 68 per cent of the variance in intention. All the variance
in intention was explained by the TPB constructs and past behaviour in predicting intentions, whilst manipulative (e.g. manipulative) construct was mediated via attitudes and perceived behavioural control (PBC).

Discussion: The result findings lend strong support for the extended TPB in explaining variance in intention. There was strong support for past behaviour as an independent predictor of intention. Anticipated regret appears to act earlier on in the causal pathway being mediated by attitudes and PBC. This suggests theoretical based interventions designed to encourage men to TSE can be explained by TPB model but in addition need to integrate theories of masculinity and the influence of past behaviour.

Withdrawal-oriented therapy as a treatment for smoking cessation in the NHS
A.M. SANCHEZ & F.B. GILLISON, University of London.

Smoking cessation has major health benefits with no apparent risks, and is the most effective and successful way of helping smokers to stop smoking. The most effective programmes involve highly supportive withdrawal-oriented treatments, which combine psychological and pharmacological support in a group setting. The smoking cessation clinics in East London follow the withdrawal oriented model and are conducted by health psychologists. The group format of the treatment consists of a total of seven weekly sessions which takes advantage of the support and motivation the group can offer. Components of the sessions are designed to establish and maintain long term. Health psychologists have an important role in developing and expanding existing services. The empirical findings and theoretical knowledge on which the components of this treatment package are outlined in this presentation.

Adding an affective component to the TPB: Two types of regret for two types of behaviour
T.M. SANDBERG & M.T. CONNER, University of Leeds.

Background: There is growing research to support the idea that processes such as anticipated regret add explanatory value to the TPB (e.g. Richard, van der Pligt et al. 1996). This TPB study, however, limited to a direct effect of regret on behaviour or a moderating effect of regret on the intention-behaviour relationship. This is in contrast to previous research (e.g. Sheeran & Orbell, 1999).

Discussion: This study considered a variety of behavious (e.g. smoking, healthy eating) which may be considered as pro self or anti self. It demonstrated not only that regret was the most significant contributor to the model in the majority of behaviours, but also that the nature of regret varied depending on behaviour type. This has practical implications for interventions designed to motivate future health behaviour, such as cancer screening.

Stress – can you beat it? Examining the application of a practical stress management programme in relation to organisational change and self-efficacy

Background: Few organisational stress management interventions are empirically assessed. A practical stress management intervention within a social services department undergoing organisational and operational change, is presented. Its effectiveness is examined applying the Transtheoretical Change Model (Prochaska & Diclemente, 1992) and the Theory of Self Efficacy (Bandura, 1977).

Method: A prospective design with pre and post intervention comparison was employed involving 178 social services staff. A qualitative preliminary stress audit and a post intervention stress audit was followed by pre and post intervention self-report measures of perceived stress (Perceived Stress Scale; Cohen et al., 1993), coping strategies used (General Self Awareness Questionnaire, Schwartz, 1998), and workplace environment (Work Environment Scale, Moos, 1984). Workshop satisfaction feedback was also gathered. Qualitative responses were analysed using thematic analysis based on grounded theory. Student t-test and one-way ANOVA comprised the quantitative analysis.

Findings: Delegates cited client contact, communication problems, workload and insufficient support as their main sources of stress. Pre and post intervention comparison yielded a significant reduction in reported stress (t(176) = 4.04, p < 0.05) and significant increase in taught strategy usage (GSAQ means: 15.6 (pre), 17.5 (post), p < 0.05) a significant group. This was reinforced by positive workshop satisfaction feedback.

Discussion: Practical issues encountered in applying a stress management consultancy and evaluation are discussed (e.g. role of management, and organizational policies). Ways of optimising maintenance of change through applying Health Psychology interventions in organisations, are considered.

The impact of emotional disclosure and psychological factors on wound healing
S.E. SCOTT, M. EBRECHT, S. HARTLEY, K. MATTHEWS, J. HEXTALL, M. DYSON & J. WEINMAN, King’s College London.

Background: This study suggests that disclosure of traumatic experiences has positive health consequences, via an upregulation of the immune system. In addition, psychological factors have been linked to changes in the immune system, and more specifically with wound healing. The present study primarily aimed to determine the impact of a disclosure intervention on the progress of wound healing and secondly the association of psychological factors with wound healing, in a controlled study. By promoting self-disclosure, it is anticipated that undergoing a disclosure intervention will result in an improvement in patient outcomes.

Method: A prospective, longitudinal design with random assignment to the control (writing about time management) and experimental group (writing about a traumatic event). Participants completed baseline questionnaires, followed by three post intervention questionnaires measuring a range of psychological factors and health-related behaviours. Accurate indication of the healing of a small punch biopsy was determined by using a high-resolution ultrasound scanner. Findings: Participants who wrote about traumatic events had significantly improved wound healing, while dispositional optimism related to better progress in wound healing. Regression analyses indicated these were not independent predictors. Low self-esteem correlated with slower wound healing, although this was not anticipated. Loneliness and social support were not related to the rate of wound healing.

Discussion: It is concluded that a relatively brief and easy to administer intervention can have beneficial effects on wound healing. Furthermore, this study provides additional evidence supporting a relationship between perceived stress, emotional distress, dispositional optimism and wound healing. The use in patient samples is indicated, in conjunction with suggestions for advancement of this exciting development.

A comparison between self-report and objective measurement of walking
E. SCOTT & F. EVE, School of Sport and Exercise Sciences, University of Birmingham.

Background: Various investigations have examined walking behaviours using both self-report and objective measures. Few investigations, however, have studied the correlation between actual walking and self-reported walking. This study aims to compare four self-report measures of walking with actual walking.

Methods: 40 participants made two visits to the laboratory. During the first visit participants were issued with a pedometer (Polar FT1) and a piece of exercise in the correct usage. The second visit occurred four days later, at which time the pedometer was returned and the participants completed a questionnaire and two interviews. The questionnaire contained scale correspondent items typically employed in Theory of Planned Behavior research designed to assess both walking behaviours and other forms of physical activity. The first interview was a five-day version of the Paffenbarger seven-day physical activity recall interview and the second was an adapted version of the seven-day recall focussing on walking as a form of transport. All measures were converted to minutes spent walking activity using the Product Moment Correlation Coefficients calculated.

Findings: Correlation between actual and self-reported walking was found to range from 0.217 (TPB measure from questionnaire) to 0.573 (seven-day PAR interview).

Discussion: This study demonstrates a low to moderate correlation between actual and self-reported walking, suggesting that self-report measures are not the most accurate measure of measuring walking. This may be because walking, although a recognised form of physical activity, is primarily a method of transport and, as such, is an automatic behaviour requiring little conscious thought or awareness.

Representations of Type 2 diabetes: Do partners’ beliefs impact on patients’ health behaviours?
A. SEARLE, P. NORMAN, R. THOMPSON & K. VEDHARA, University of Bristol.

Background: The illness representation framework is utilised in the context of managing Type 2 diabetes with a focus on partners’ impact on patient health behaviours.

Method: Patient and partner representations were assessed at 0 and 12 months with the Revised Illness Perception Questionnaire (IPQ-R). Behavioural outcomes were assessed...
using self-report measures of medication adherence, physical activity and diet. Findings: An design (N = 164 dyads) demonstrated a high level of agreement for patients and parents for the five ‘core’ dimensions of illness representations, however, differences existed between patient and parent representations. Patients with poorer medication adherence held stronger beliefs in perceived consequences (p < 0.05) and beliefs of cause (p = 0.05), partners held stronger beliefs regarding the patients’ timeline (p < 0.05), personal control (p = 0.01) and emotional representations (p < 0.01). Patients undertaking higher levels of physical activity had stronger personal control beliefs (p < 0.05), partners of those patients also reported stronger personal control beliefs (p < 0.05). Dietary behaviour was also affected by patient and partner representations, for example, patients with higher fibre intake held higher timeline scores (p < 0.001), consequences and has less illness coherence (p < 0.05) while partners held stronger control beliefs.

Discussion: Patients and partners representations of diabetes have implications for healthcare belief of medication adherence, physical activity and dietary choices. These issues will be examined further with the analysis of follow up data and discussed at the meeting.

Causal models of raised cholesterol and perceptions of effective risk-reduction: Self-regulation strategies for an increased risk of cardiovascular disease V. SENIOR, University of Surrey & T.M. MAINAN, Kings’ & St Thomas School of Medicine. Background: Self-regulation models of illness suggest that causal models and perceptions of control are determinants both of perceptions of effective risk-reduction strategies and risk-reducing behaviour. This model is tested in people with Familial Hypercholesterolaemia (FH), an inherited predisposition to cardiovascular disease.

Methods: 317 participants with FH in a trial of genetic and non-genetic risk assessment, completed a self-report causal model, perceived control, perceived effectiveness of risk-reducing strategies, dietary fat intake, and medication adherence. A cross-sectional analysis of data collected six months after the risk assessment is presented.

Findings: Genetic causal model related was perceived medication to an effective risk-reduction strategy (Beta = 0.133, p < 0.05). Behavioural causal model was related to perceived dietary intervention as an effective risk-reduction strategy (Beta = 0.292, p < 0.001). Perceiving FH as more controllable was associated with greater perceived effectiveness of both medication and diet in risk-reduction (Beta = 0.156; Beta = 0.166, p < 0.05, respectively). The perceived effectiveness of medication was associated with greater adherence to medication (OR = 1.94, p < 0.01).

Discussion: These data support self-regulation models. Causal model and perceptions of control are associated with perceptions of effective risk-reduction strategies, but not behaviourally-based methods. A genetic causal model was associated with the perceived effectiveness of biologically-based methods, but not behaviorally-based methods, of risk reduction. Genetic testing for preventable diseases is likely to reinforce genetic causal models and, therefore, the perceived effectiveness of biologically-based methods of risk reduction. As perceiving medication as more effective is associated with greater adherence to medication, genetic testing in risk management might help to increase adherence to biologically-based methods of risk reduction.


Background: Regular self-monitoring of blood glucose has been found to be an important factor in maintaining proper glycemic control. However, compliance with recommended self-monitoring is found to be poor. Past research suggests that cognitive factors play a role in determining compliance with various aspects of the self-care regime. The present study used an extended Theory of Planned Behaviour (TPB; Ajzen, 1991) model to predict self-monitoring in Type 1 diabetes.

Method: 64 adult Type 1 diabetics were required to complete a questionnaire measuring variables from the TPB, as well as data relating to quality of care and perceived effectiveness of biologically-based and behaviourally-based methods of reducing risk. As perceiving medication as more effective is associated with perceptions of effective risk-reduction strategy (Beta = 0.282, p < 0.001). The perceived effectiveness of biologically-based methods, but not behaviourally-based methods of reducing risk: Self-regulation strategies and perceptions of effective risk-reduction.

Genetic testing for preventable diseases is likely to reinforce genetic causal models and, therefore, the perceived effectiveness of genetic casual models, perceived control, perceived effectiveness of risk-reducing behaviour. This model is tested in people with Familial Hypercholesterolaemia (FH), an inherited predisposition to cardiovascular disease.

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An interpretative phenomenological analysis of young women’s experiences of infant feeding in low-income communities R.L. SHAW, University of Leicester & L.M. WALLACE, Coventry University.

Background: Young women living in low-income areas of the UK are amongst those least likely to breastfeed. A study by investigating the infant feeding experiences of Asian, Black and White first-time mothers in Coventry.

Methods of data elicitation and participants: Focus groups were held with 15 health professionals (community midwives and health visitors) to explore their perceptions of young mothers, individual interviews were conducted with 11 mothers (one Bangladeshi, two Black, three Pakistani and three White).

Framework of analyses: Interpretative phenomenological analysis was used.

Findings: The focus groups yielded in-depth experiential insights. Differences existed between people with a strong intention and those with a weak intention to self-monitor. Six barriers: (1) inaccurate breast milk estimation, (2) lack of accuracy in timing, (3) lack of support, (4) lack of information, (5) lack of family support, (6) lack of confidence in self-monitoring.

Discussion: Clear plans about self-monitoring and trying to minimize risk were as important as the plan. Education sessions could also address previous failed attempts; health professionals felt obliged to be all-knowing about breastfeeding and ethnicity but were forced to acknowledge varying levels of ignorance, while young first-time mothers were so despondent over pregnancy that feeding method was not always considered seriously. Qualitative methodologies are useful in revealing the subjectivities and detail within the field of breastfeeding research.

Meta-analysis of implementation intentions: Analysis of volitional problems and component processes P. SHEERAN, University of Sheffield & P.M. LWITZER, University of Konstanz/ New York University.

Background: This paper presents a meta-analysis of the utility of implementation intentions (Lutzker, 1993, 1999) in addressing volitional problems associated with both wanted and unwanted behaviours; and (b) automatising behavioural responses. For wanted behaviours, the facilitation of self-monitoring could help to reinforce genetic casual models and, therefore, the perceived effectiveness of genetic causal models, perceived control, perceived effectiveness of risk-reducing behaviour, which were considered to be important in influencing outcomes. These three features of automaticity associated with the formation of implementation intentions were examined, namely lack of intended discrepancy, and automaticity.

Methods: Computerised literature searches and informal sources produced 85 independent tests of the relationship between implementation intentions and future behaviour (N = 8155). Findings: The overall effect size associated with forming an implementation intention was d = 0.63 (95 per cent CI = 0.58 to 0.68). Hayes’ mediation intensions had reliable effects of medium-to-large magnitude for volitional problems associated with both wanted and unwanted behaviours. These findings were consistent with the current meta-analysis. Evidence was obtained for component processes of implementation intentions. Effect sizes for lack of intention and lack of self-monitoring were d = 0.72, 0.77, and 1.12, respectively.

Discussion: This meta-analysis indicates that implementation intentions are associated with automatisation of responses and are highly effective in overcoming a variety of volitional problems. Implementation intentions warrant further and widespread application in health psychology research.


Background: To examine willingness to volunteer for an HIV vaccine trial. Men reporting unprotected anal intercourse (UAI) in the previous three months with a man of unknown or discordant HIV status were considered to be at high-risk (N = 412, 81.4 per cent).

Results: Just under a quarter of the HIV negative men (23.4 per cent) said they were quite likely to volunteer for a trial compared with those at low-risk (37.2 per cent vs 20.2 per cent, p = 0.001). Of the 506 HIV negative men surveyed, eight (1.6 per cent) were both high risk and quite likely to volunteer. Based on these findings, we estimated that to recruit 1000 high-risk men (37.2 per cent v 20.2 per cent, p = 0.001).

Method: HIV negative gay men (N = 506) were surveyed in central London in February - March 2002. Information was collected on willingness to volunteer for an HIV vaccine trial. Men reporting unprotected anal intercourse (UAI) in the previous three months with a man of unknown or discordant HIV status were considered to be at high-risk (N = 412, 81.4 per cent).

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Quality of life and coping strategies after liver transplant

C. SIGHINOLFI, C. SICA, D. COMELLI, University of Modena & C. GHINELLI, Hospital of Modena & M. JOHNSTON, University of Aberdeen.

Aims: The aims of this study were to examine the QoL of QoL of people who underwent liver transplant, to investigate post-operative coping strategies and to examine a possible correlation between the two variables.

Methods: This was a cross-sectional study of liver transplant patients (N = 30) from the Multi-Visceral Transplant Centre of Modena (Italy). The Italian adaptation of SF-36 (Apolone, Mosconi & Ware Jr., 1997) was used to assess QoL and the Italian adaptation of COPE (Sica, Novara, Donz & Santoro, 1997) was administered to evaluate coping strategies. T-test and one-way ANOVA were used for the statistical analysis.

Results: QoL was similar to the norm group on six of the eight SF-36 subscales. Transplant patients showed the significantly lower scores on Role Physical (t = 5.41, P < 0.001) and Role emotional scales (t = 3.39, P < 0.001). No significant differences were found about QoL over time although the subgroup with the furthest time since transplant had the highest scores on seven of the 14 COPE scales. A larger use of coping strategies such as Positive Attitude, Planning, Religion and Acceptance was associated with higher levels of some QoL domains (i.e. social, mental and psychological).

Conclusions: Liver transplantation results in important implications for QoL. There is a need to persist in physical and emotional functioning. The demanding of the transplant seem to require a broad range of coping strategies and this seems to lead to a higher level of QoL.

Can the role of taste mediate the physiological changes caused by psychological stress?

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Background: Sensory stimulation and sensory depression in modifying physiological changes caused by stressful events has been studies by researchers with a view to decreasing pharmacological intervention. This study was carried out in order to determine whether the effects that a sweet taste has on the heart rate of physically stressed babies can be replicated in adults who have been exposed to an emotional stressor. A randomised comparison of the effects of a stressor on physiological changes mediated by a sweet tasting drink and a neutral drink consumed immediately after the stressor and subsequently (two minutes) post-stressor using no drink as a control procedure.

Methods: In total, 20 participants were randomly allocated to receive either 20 ml of 20 per cent glucose solution or 20 ml water. A pulse oximeter was used to measure pulse rate continuously. The heart rate from contact with the researcher was minimised. The stressor was a coloured photograph of a computer screen while taken from a medical textbook. Diabetics and individuals with taste impairment were excluded from the study.

Findings: A two-way mixed analysis of variance was used to analyse the data. As expected the heart rate of those who had a sweet drink returned to baseline levels faster than other groups. In contrast, the heart rate of the control group remained elevated even after two minutes.

Discussion: The results are consistent with those found in neonatal studies which suggest that stimulation of a sweet taste could have an effect on physiological changes (i.e. heart rate) caused by stress. This type of study deepens our understanding of the relationship between behaviour and physiology. It is therefore, essential to investigate further the mechanisms that reduce stress.

A systematic review to examine the impact of psycho-educational interventions on health outcomes and costs in adults and children with difficult asthma

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Background: Research highlights the importance of psychosocial factors in ‘difficult’ asthma. This study reviewed the content, effectiveness and cost-effectiveness of psycho-educational interventions for difficult asthma that aimed to address these factors.

Methods: 32 sources were searched using asthma terms combined with complex permutations for describing psychological, educational, self-management and multifaceted interventions. Abstracts were screened in duplicate, against prior definitions, to identify eligible interventions targeted to patients with forms of risk factors for difficult asthma. Studies were classified by intervention type and patient group (paediatric, adult) and, within eight domains, graded on dimensions of quality related to study design with which they targeted difficult asthma. Descriptive, methodological, effectiveness and cost-effectiveness data were extracted from studies above a specified quality score.

Findings: Searches identified 20,000+ citations. After preliminary screening and removal of duplicates 400 possibly relevant abstracts were assessed. Two-hundred-and-ten relevant papers were obtained, classified and graded. Forty-five studies with high grades were judged likely to include at least a large minority of patients with difficult asthma, were selected for data extraction. Overall, only one randomised trial (n = 104) was identified. From those, asthma interventions and outcomes assessed were heterogeneous, and relatively few studies evaluated focal techniques. Applied psychological theories in interventions of other types or considered psychological outcomes.

Discussion: Despite the importance of psychosocial factors in contributing to adverse asthma outcomes few studies targeting difficult asthma incorporated psychological theories outcomes in the design, delivery and evaluation of interventions. Results will highlight the potential role for health psychology in this field.

Illness perceptions, depression and coping in people with multiple sclerosis

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Background: The small amount of research that has been carried out with MS concerning illness perceptions has largely considered people with MS as a single population. A recent study was designed to test the notion that given the variable nature of MS, differences could be expected between people with different subtypes of MS. Measures of coping and illness perception were also administered to evaluate the wider context of illness perceptions.

Methods: This study used a cross-sectional between-subjects design. There was one independent variable (Subtype of MS) with three levels (Benign, Relapsing-Remitting and Progressive). There were four dependent variables (scores on the IPQ-R, CRI and HADS questionnaires) with between two to eight levels each. Component Analyses was also used to check the theoretical factors underpinning the questionnaires.

Findings: Results showed significant differences between people with subtypes of MS on the IPQ-R and depression scores but not on coping scores. Anxiety was fairly high in all MS groups.

Discussion: The suggestion that illness perceptions and coping may vary with the subtypes of MS is not surprising, but high levels of anxiety and little variation in coping strategies across the subtypes is a cause of concern and suggests the need for specifically focussed interventions designed to promote effective coping.

Exploratory study of illness representations among men with erectile dysfunction

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Background: Erectile dysfunction (impotence) is one of the commonest conditions in men over 40 years of age with estimates of over 50 per cent of men between 40 and 70 experiencing some degree of erectile dysfunction. The object of the study was to apply an illness representations framework to examine patients’ beliefs about erectile dysfunction and the association between those beliefs and reported quality of life.

Method: 41 patients attending two secondary care clinics at a teaching hospital were invited to participate in this study. The variance in quality of life could be explained by beliefs about the consequences of erectile dysfunction, emotion and sexual functioning (Beta = 0.357, p < 0.001) and that this increased to 33.7 per cent by the inclusion of masculinity (Beta = 0.310, p < 0.05).

Discussion: The results will inform health care professionals of the influence of patient’s beliefs regarding erectile dysfunction on their emotional and physical quality of life. An educational intervention could improve patients’ perceptions of the consequences of erectile dysfunction and could also include a cognitive component to examine patients’ beliefs about their sexual function and how this relates to perceptions of their own masculinity.

Patients’ perspectives on living with diabetes: An exploration of adaptation and the self using Interpretive Phenomenological Analysis

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Purpose: Coping with diabetes mellitus is demanding both in terms of its complex self-management regimen and the psychosocial sequelae of threatened complications. Medical sociological research and the self-regulatory model (SRM) in psychology both describe illness as a threat to a person’s sense of self. Such threat is proposed to influence coping activities, such as self-management in diabetes. Therefore, the present study aimed to explore the relationship between diabetes, coping and the self.

Method: Nine, semi-structured interviews were conducted with adult type 1 diabetics (aged 25 to 35), all of whom had been diagnosed in their mid-teens and for a minimum of 10 years (a range of 10 to 20 years). The analysis adopted was Interpretive Phenomenological Analysis (IPA).

Findings: Four, super-ordinate themes emerged: ‘patients’ perspectives of healthcare’, coping with self-management’, ‘acceptance and autonomy’ and ‘the self under threat’. Essential coping strategies were both autonomy and integrating diabetes into one’s sense of self. Most participants reported coping well, although there were two, anomalous accounts. The self was
under threat from a number of sources, including ‘stigmatisation’, ‘discrimination’ and ‘negative media’. An important trend was ‘barriers to present quality of life with a future self’, as this had self-reported effects on self-management. Conclusion: Therefore, even after a minimum of 10 years of illness, the psychological impact of participants' diabetes was still evident. Also findings were consistent with the self-regulatory model. The ‘self-systems’ are related to coping and adaptation. Implications for healthcare are discussed and also future, psychosocial research for the design of interventions.

A conceptual model of adherence to prescribed anti-hypertensive medication
L. STEADMAN, L. QUINE & D.R. RUTTER, Centre for Research in Health Behaviour, University of Kent.
Background: Hypertension is a major risk factor for stroke and heart disease, and it is, therefore, vital for patients to monitor and control blood pressure. In total, 17 per cent of the hypertensive patients were sent a questionnaire via their GPs measuring beliefs about their anti-hypertensive medication. The results suggested that social-cognitive factors are important predictors of adherence to anti-hypertensive medication. The importance of establishing a conceptual model of adherence to anti-hypertensive medication was considered from Time 1 data and will be updated when Time 2 data has been fully analysed. Preliminary findings using path analyses showed significant paths to adherence (beta = 0.21, p < 0.001) and behavioural control (beta = 0.07, p = 0.05). Paths from knowledge of hypertension, conscientiousness, and hypertensive self-image to adherence were all significant (beta = 0.07 p = 0.05, 0.09 p < 0.01, and 0.17 p < 0.001 respectively). The socio-economic and demographic factors that showed significant paths to adherence were having a car available (beta = 0.12 p < 0.01) and being married (beta = 0.08, p < 0.01). Further analysis of the predictors of adherence to anti-hypertensive medication showed that medical risk factor showed a significant path to adherence (beta = 0.09 p < 0.001), and genetic risk factors. In total, 17 per cent of the variance in adherence was explained. Discussion: The results suggest that social-cognitive factors are important predictors of adherence to anti-hypertensive medication. The significant role of hypertensive self-image suggests that the promotion of a positive hypertensive self-image would be a possible target for intervention.

Predicting who may benefit from a diabetes self-management intervention
Background: Self-management interventions (SMI) are accepted as an important component of care for patients with Type 2 diabetes. Identifying those who may benefit from SMI is important but little is known about who may benefit. The study examines the baseline characteristics of the intervention group in a successful RCT in Type 2 Diabetes. Methods: 65 individuals with Type 2 diabetes were recruited on clinical and psychosocial variables prior and post a self-management intervention. Residualised change scores were calculated for outcome variables (diet, exercise, blood glucose monitoring, blood pressure control). Correlations between baseline demographic, clinical and psychosocial characteristics with residualised change scores were performed to guide model development.
Findings: No demographic (age, gender, education level) or clinical characteristics (years diagnosed, complications) significantly predicted change in the assessed outcomes. Change in dietary behaviour was significantly predicted by baseline level of social support for diet (33 per cent) and was significantly predicted by exercise specific self-efficacy (12 per cent). Although a correlation was found between predicted baseline and change in monitoring, mood was not a significant predictor in the regression analysis. No baseline characteristics were correlated to change in metabolic control.
Discussion: Demographic and clinical factors were unrelated to any changes following the intervention. Changes in diet and exercise were predicted by psychosocial variables at baseline, but no baseline predictors were found for changes in monitoring or blood pressure control. These findings suggest that few patient predictors factor benefit from a self-management intervention.

Stress, anxiety and depression in urban and rural police officers
M. STIRLAND & R. KNIBB, University of Nottingham.
Introduction: The police force is thought to be one of the most stressful occupations (Storch & Panzarella, 1999). In a large body of literature has looked at stress in the police force, however, many studies have used anxiety questionnaires to demonstrate a link between anxiety and stress (Evan & Galton, 2003). This study investigated levels of perceived stress, anxiety and depression in urban and rural police officers and also those working in the City of Nottingham.
Methods: 250 questionnaires were distributed to police officers based at urban and rural stations in two East Midlands counties. Officers were sent the Perceived Stress Scale (PSS), the Spielberger State Trait Anxiety Inventory (STAI) and Beck’s Depression Inventory (BDI). They were also asked to provide demographic information and whether they had been for counselling.
Results: There were a 48 per cent response rate. Twenty-five per cent of officers reported mild to moderate depression, mean scores for PSS were above the norm. Twenty-five per cent of officers had significantly lower anxiety and depression scores (p < 0.05). Differences between descriptive statistics and zero-order correlations were significant (p < 0.05). Analysis of the discrete patient-variables found that female doctors scored higher than male doctors in stress, anxiety and depression. Multiple regression analysis indicated an association in levels of stress, anxiety and depression. Conclusions: Stress, anxiety and depression levels are high across all areas of the police force, although stress levels are less at risk than other types of officer. Those going for counselling reported highest levels of stress and depression, but this was not significant, and reported confusion in officers as to what the official counselling policies were. This information needs to be made available to officers at all levels and areas of policing.

An exploration of changes as children mature with reference to sun-related risk perception and protective health behaviour
T. TUCU & S. HORN, University of Southampson.
Background: The importance of establishing a continuing routine of sun-safe behaviour in those under the age of 20 is discussed. The aim of the study is to elucidate the relationships between risk perception judgements and sun behaviour and how these change with age.
Method: A quantitative cross-sectional questionnaire design was used. Each participant was collected on sun sensitivity, sex and two specifically designed questionnaires assessed reported sun-related behaviour and risk perceptions of several outcomes related to sun exposure. Reliability and validity for both questionnaires were good. One-hundred and thirty-six participants (5 to 6-year-olds, 10 to 11-year-olds, 14 to 15-year-olds and 19 to 23-year-olds) were recruited from two schools and a university.
Results: The results were analysed via T-tests and regression analyses (including mediation and moderation analyses).
Findings: The results showed reported risk perceptions and behaviour and their inter-relation differently by age. MANOVA's showed that reported use of sunscreen (incl. sunscreen in and out of pool, use of sun-protection clothing, sun-protection behaviour when using media). An important tension was ‘balancing sun behaviour across age-groups. Risk perception judgments may differ across age and sun-safe behaviour.
Discussion: These findings add to the theoretical understanding of how sun-risk perceptions influence behaviour through childhood into adulthood and could help guide age-appropriate interventions to encourage sun-safe behaviour.

Breaking bad news consultations: Gender differences in the communication styles of doctors
L. TIPPER, Coventry University, S. BONAS, University of Leicester, J. FISHER & M. BARNETT, University of Warwick.
Background: Research into communication styles of male and female doctors, e.g. Roter and Hall (1998), has found that female practitioners tend to adopt an interpersonal style that is more consistent with a patient-centred approach to patients. Methods: This study observed the verbal and non-verbal behaviour of 49 breaking bad news consultations between genuine doctors and actors role-playing patients were observed to compare communication styles of male (N = 23) and female (N = 12) doctors in the breaking bad news consultation. Skills used in breaking bad news were assessed using the Breaking bad news Assessment Schedule (BAS, Miller et al., 1999); Henbest and Stewart’s 1989 measure of patient-centredness; plus other communication skills that are more typical of breaking bad news to patients. Forty-six videotaped consultations between genuine doctors and actors role-playing patients were observed to compare communication styles of male (N = 23) and female (N = 12) doctors in the breaking bad news consultation. Skills used in breaking bad news were assessed using the Breaking bad news Assessment Schedule (BAS, Miller et al., 1999); Henbest and Stewart’s 1989 measure of patient-centredness; plus other communication skills that are more typical of breaking bad news to patients.
Findings: Female doctors were found to score significantly higher than male doctors in the BAS (p < 0.01) and the patient-centredness scale (p < 0.05). Analysis of the discrete patient-variables found that female doctors scored higher than male doctors in stress, anxiety and depression. Multiple regression analysis showed that the number of verbal statements uttered (p < 0.05); the number of back channel responses uttered (p < 0.05); number of empathy building statements made (p < 0.001); and number of nods made (p < 0.05). Differences between descriptive results for male and female doctors on other variables were consistent. Results for female doctors being more patient-centred, but were non-significant, p < 0.05.
Discussion: Overall, the results provide support for the hypothesis that when breaking bad news, female doctors demonstrate a greater use of verbal and some non-verbal patient-centred behaviours than male doctors. The results of the medical education are discussed.

The decision to accept a blood transfusion: What role do motivations play?
S. TOMLINSON, R. FERGUSON & K.C. LOWE, University of Nottingham.
Background: The purpose of the present research was to identify the motivations and reasons associated with blood transfusion are stable or if they are mutable (i.e. influenced by external factors such as message frame and the
type of procedure offered? Method: 334 adults were presented with one of eight stories concerning blood transfusion, where the nature of the procedure (donated blood, or a blood substitute made from either bovine haemoglobin, human haemoglobin or plant-based perflurocarbon chemicals) and the manner in which the information was framed varied. Participants using free text described their model of care (i.e., relying on or rejecting the transfusion. Responses were content analysed. Results: Six major themes explaining 69.8 per cent of the participant's responses: risk (18 per cent), cost (15.2 per cent), medical need (13.1 per cent), cost benefit (6.6 per cent), beliefs about health professionals (7.9 per cent) and acceptability (8.6 per cent). Kappa's ω = 0.76, p < 0.001). A two way ANOVA revealed significant differences in the motivations by procedure (F(3.586, 132) = 3.95, p < 0.05). A Friedman's test demonstrated that cost benefit and beliefs about health professionals were cited more frequently among those participants who had received the vignette using the donated blood in comparison to the perflurocarbon substitute and bovine haemoglobin where information seeking was more frequently listed. There was no significant difference by frame. Conclusions: Motivations for accepting a transfusion vary as a function of procedure. Future research will employ the motivations identified to further understand the role of contextual information in the decision making process.

The role of trait emotions on past blood donation behaviour S. TOMLINSON, E. FERGUSON & K.C. LOWE, University of Nottingham, Babyls Foundation and Ponder (1981) and Edwards and Zeichner (1985) had reported blood donors as being less anxious than non-donors. The role of the trait facets that influence the trait anger, anxiety, fear and happiness were explored with respect to past blood donation. The synergist relationship between the traits was explored.

Method: 367 participants, (115 blood donors and 252 non-donors) completed measures of trait anger (Speilberger, 1996); trait anxiety (Speilberger, 1982); a 12-item measure of the Fear Survey Schedule – II (Geer, 1965); and a six-item measure of Happiness (Underwood & Fromkin, 1968). Data on past blood donation history were also collected.

Results: Logistic regression revealed that participants who had donated blood in the last 12 months and were over 35 years old were 2.50 times and 2.40 times more likely never to have donated blood. Two-way ANOVAs revealing significant interactions between high scores on fear and both anxiety and happiness showed that the effect of fear on past donation behaviour is moderated by high scores on happiness, and that anxiety and happiness are not independent.

Conclusions: These results suggest that trait emotions are factors, which may need to be considered by the blood service when designing advertisements aimed at recruiting new blood donors. Further research into the role of personality variables in the willingness to donate blood is suggested.

Socially desirable responding, depression and antidepressant use amongst patients with rheumatoid arthritis: A longitudinal study G.J. TREHARNE, School of Psychology, University of Birmingham, A.C. LYONS, School of Psychology, Massey University, New Zealand, D.A. BOOTH, School of Psychology, University of Birmingham & G.D. KITAS, Dept. of Rheumatology, University Hospitals Birmingham and Dudley Group of Hospitals NHS Trust.

Background: Socially desirable responding involves answering in a self-deceptive manner and is relevant to research on chronic illness. Ruminative and socially reframed arthritis (RA) is a chronic inflammatory condition that often leads to depression. People who respond desirably report lower depression, although no longitudinal research has carried out to investigate this in chronic illness.

Methods: Assessments were carried out on two occasions six months apart for 134 RA outpatients (101 female). Mean age was 54.53 years; mean RA duration was 7.31 years. Socially desirable responding was measured using the Balanced Inventory of Desirable Responding; depression was assessed on the Hospital Anxiety and Depression scale; medication use was ascertained from hospital notes. Changes and group differences were calculated using t-tests and ANOVAs.

Findings: Over the six months, socially desirable responding increased for participants scoring high trait anger and fear (r = 0.34 out of 20; (133) = 2.88, p < 0.01) whilst depression was stable. Socially desirable responding increased for people who were younger, but decreased for those who were not (F(1, 132) = 3.95, p < 0.05). Socially desirable responding related to lower depression (r = -0.23, p < 0.01) especially for those taking antidepressants (r = -0.50, p < 0.05).

Discussion: This decrease in socially desirable responding indicated that patients become more open when they get to know the researcher. The fact that people who were taking anti-depressants showed an increase in socially-desirable responding could be a protective form of self-deception. Depression in people with RA does not seem to change when not intervened with.

Older people’s views on discussing end-of-life care and resuscitation orders within a family setting: A focus group study T. VANDREVELA & S.E. HAMPSON, University of Surrey.

Background: In the course of the study was to investigate older people attitudes and perspectives on discussing end of life issues with their family members. Medical technology has made it possible for doctors to perform cardiopulmonary resuscitation (CPR). A patient can opt out of resuscitation by asking the doctor to 'do not attempt to resuscitate' (DNAR) order. Often discussions between the doctor and patient about CPR does not take place and thus other family members make the decision on behalf of the patient. This required that discussion of CPR have taken place within the family setting, prior to the person being incapacitated.

Methods: Eight community-based focus groups, consisting of 48 older people, were convened to explore older people’s perspectives on discussing end-of-life care with their doctors and family members, and were more likely to trust their family members and discuss these issues with them. Participants acknowledged the difficulties for family members and these attitudes of their family members make these discussions difficult.

Discussion: These results are consistent with social cognitive models. The practical implications of these findings will be addressed.

Social participation and mental health in younger stroke survivors: The role of illness perceptions and coping strategies L.E. VENTO & A.J. WEARDEN, University of Manchester.

Background: We investigated whether illness perceptions and coping strategies of younger stroke survivors predicted their adaptive outcome (mental health and social participation), even when several demographic and time since stroke were taken into account.

Methods: 70 younger stroke survivors (43 male; aged 25 to 55, mean age 42.3) were recruited from a neuro-rehabilitation centre (N = 26) and a stroke survivors’ support group. Mean time since the stroke was 5.0 years (range 1–21 years). Participants completed questionnaire measures of stroke impact (the haemophilia illness perceptions (IPO-R) and coping strategies (COPE)). Outcome measures were social participation from the SIS and mental health (the five item Mental Health Inventory (MHI-5)).

Findings: On step one of separate hierarchical regression analyses, functional impairment and years since stroke remained a significant predictor of the variance in social participation and two per cent of the variance in mental health scores. Subsequent entry of illness perceptions dimensions significantly increased the proportion of variance accounted for in both equations. For social participation, psychological distress and accidents caused additional 15 per cent. For mental health, identity, emotional representations and psychological cause contributed additional 68 per cent. Similarly, entry of coping dimensions increased the proportion of variance accounted for in both equations. For social participation, active coping, venting emotions, denial and mental-disengagement contributed an additional 42 per cent. For mental health, acceptance, venting emotions, mental-disengagement and instrumental support contributed an additional 48 per cent.

Discussion: Illness perceptions and coping strategies both predict adaptive outcome in young stroke survivors, after severity of impairment has been taken into account.

Why GPs do not give brief advice to smokers: A systematic review F. VOGT, S. HALL & T.M. MARTEAU, King’s College, London.

Background: Brief advice from GPs is an effective and cost-effective way of increasing smoking cessation. However, factors affecting GP’s advice are not well understood. In this systematic review we examine the factors that affect doctors’ advice and explore why such advice are advising smokers to quit and promoting smoking cessation services and products. Many smokers would welcome such brief advice. The aim of this systematic review is to describe obstacles to the initiation of brief advice as perceived by smokers.

Methods: Theories of behaviour change were used to develop the search strategy. Nine electronic databases were searched (including Medline, AMED, and Psychoinfo). Three of the categories of obstacles were used for data extraction: those affecting (i) knowledge, (ii) attributions, or (iii) behaviour. Reliability of the inclusion criteria and data extraction was assessed.

Findings: 23 studies met the inclusion criteria. Most obstacles were not guided by theory, making synthesis of their results difficult. Preliminary analysis identified 188 perceived obstacles to the initiation of brief smoking advice. Of these, 13 related to knowledge (eg awareness), 82 related to attitudes (eg perceived effectiveness, perceived personal reward, neglect of patient privacy, professional role, priority) and 73 related to behaviour (eg forgetting, patient resistance to advice, practicability of providing advice, complexity of guidelines, negative emotional experience, time, reimbursement, and perceived ability). The review will estimate the relative importance of each of these perceived obstacles.

Discussion: GPs perceive many obstacles to giving brief smoking cessation advice which need to be overcome if recommendations in current guidelines for health professionals giving smoking cessation advice are to be achieved.

Warwickshire osteoporosis and behaviour study: Exploration of a nurse-led patient education intervention for primary care L.M. WALLACE & M. BOXALL, Health Services Research Centre, Coventry University.

Background: The study presents a feasibility study for a future RCT to investigate the effectiveness of a single-session intervention led by primary care practice nurses using motivational interviewing to promote protective self-care behaviours (increasing calcium intake
and bone loading exercise) for women at risk of osteoporosis. Theoretical models used included the Transtheoretical Model of Change and the Theory of Planned Behaviour.

**Methods:** The study was quantitative, investigating a general practice sample of 26 women aged 50 to 70 years who were called for a Bone Health Screen and osteoporosis risk screening. Women were randomised to receive either control care (15 minute appointment with practice nurse and usual health risk advice) or experimental group (30-minute appointment with practice nurse and target setting advice concerning exercise and diet change). Questionnaire data considering perceived control, beliefs about benefit, and intention to change questions, diary data for exercise and diet were collected before and after the session, and interview data was collected at three-month follow-up in six women to obtain more detailed explanatory information.

**Findings:** Results showed that there were significant differences over time when considering theory of planned behaviour variables regarding intention to change calcium intake. However, these changes occurred regardless of the group in which the participants were allocated. Other variables such as osteoporosis health beliefs, risk perception or diary records of exercise behaviour did not show any significant difference between groups over time.

**Discussion:** The study suggests that the intervention is feasible, but early inspection of the data suggests a single session nurse-led intervention using motivational interviewing may not be sufficient in promoting positive care behaviours for those at risk of osteoporosis. Reasons for the results are explored and possible improvement to the intervention suggested.

The impact of HIV negative test results on safer sexual behaviour: A systematic literature review

M.L. WALLACE, University College London & TM MARTEAU, King’s College, London.

**Background:** The majority of those tested for HIV receive a negative test result. The process of HIV voluntary counselling and testing (VCT) is regarded as an ideal opportunity to change risk behaviour in those who receive a negative test result. Past research to determine the effectiveness of testing has largely focused on homosexual men as participants and these results are confounded by the fact that homosexual men began changing risk behaviour before testing was available. Most recent studies suggest that results may be different in heterosexual adults, and that HIV VCT may not be effective in changing behaviour in this group.

**Method:** Computerised databases, review articles and related journals were explored for relevant literature. Thirteen studies from developed and developing countries met the inclusion criteria and were systematically reviewed to ascertain the effects of HIV VCT on sexual risk behaviour in heterosexuals receiving a negative HIV test result.

**Findings:** Finding that sexual risk behaviour does not change as a result of HIV VCT in developed countries, with five of the six studies in this group showing no significant change in risk behaviour. In developing countries, sexual risk behaviour appears to decrease, with six of the seven studies showing a significant decrease in sexual risk behaviour. In only one study did authors attempt to relate their findings to theory.

**Discussion:** Implications, methodological limitations and future directions are discussed.

Watching and participating in exercise videos: A test of the Theory of Planned Behaviour and the role of implementation intentions


**Background:** An expanded model of the Theory of Planned Behaviour (TPB – Ajzen, 1991), including conscientiousness, self-concordance and past behaviour, was used to predict intention to watch a short exercise video and to participate actively in the exercises demonstrated. Actual behaviour was assessed also. A supplementary aim was to explore whether or not the creation of implementation intentions, specifying when and where they would watch the video during the subsequent week, would facilitate behavioural enactment/mamonnge.

**Methods:** A mixed sample of undergraduate students (N = 80) completed traditional measures of TPB variables together with two sub-scales (dutifulness and self-discipline) from the conscientiousness inventory (NEO-PI-R: Costa & McCrae, 1992) for self-concordance (Sheldon & Kasser, 1995) and an index of current exercise behaviour. Half of the questionnaires invited participants to stipulate in writing when and where they intended to watch the video.

**Findings:** Regression analyses revealed a subjective norm, intention and received behavioural control (beta = 0.54) to be the key predictors of intention (R2 = 0.39), with additional predictors accounting for around 10% additional variance. Intention proved to be the only significant correlate of behaviour (r = 0.19, p<0.05). Finally, compared with control participants, behavioural occurrence was much more likely among intentioners who formed implementation intentions (X2 = 29.72; df = 5).

**Discussion:** The results endorse the sufficiency of the TPB as a predictive model of intentions and to a lesser extent health behaviour, and they confirm the effectiveness of creating implementation intentions in behavioural activation.

An investigation into the influence of message framing, size of port wine stain and mood on the decision of a carer to give consent for a child to have laser treatment

T. WEBB & E. FERGUSON, University of Nottingham.

**Purpose:** Port wine stains (PWS) are congenital blemishes, with over 85 per cent present on facial areas. Parents/guardians, have to give consent for children to be treated by laser. Personal desires alone are known to be influenced by message frames. Frames involve presenting factually equivalent information as either gains (e.g. live saved) or losses (e.g. deaths). This study further explores the influence of frame by asking: (1) do framing effects generalise to decisions about others; (2) are framing effects moderated by disease severity (i.e. size of the PWS); and (3) what is the role of emotions?

**Methods:** 193 adults viewed one of two photographs of a child with a facial PWS (one large PWS, one small PWS) and presented with the same factual information regarding the treatment for removal (gains or losses). Participants imagining they were the child’s carer were asked if they would give consent for the child to have treatment. Mood was also assessed.

**Results:** Logistic regression analyses showed that both frame and PWS size were significant predictors of the decision to consent. Odds ratios showed that those exposed to either gain frame (OR = 11) or a large PWS (OR = 3) were more likely to give consent. There were no significant effects for mood.

**Conclusions:** Importantly these results show the framing effects generalise to decision made on behalf of others. The results confirm the importance of severity but show the cognitive factors (i.e. framing) have an independent effect on decision making.

Can implementation intentions overcome unwanted habitual behaviour?

T.L. WEBB & P. SHEERAN, University of Sheffield.

**Background:** Many behaviours that are detrimental to our health form part of our habitual behaviour. For example, when we consistently eat fast food for lunch, willpower alone may not be sufficient to attenuate the association between lunch and fast food. The present research employed naturally occurring semantic associations between words (e.g. bread and butter) and examined if implementation intentions have the potential to break habitually formed associations.

**Methods:** Participants (N = 33) completed two unrelated tasks. In the first task, participants formed an implementation intention to distract themselves whenever they thought about eating bread and butter. In the second task, participants completed a lexical decision task in which target words (strong words versus semantic associates of bread) were presented subliminally in pairs (‘bread’ or a neutral word). Response latencies were the DV.

**Findings:** ANOVA revealed a main effect of word type only for participants who had formed an implementation intention (F (3, 45) = 11.48; p<0.001). As expected, participants responded slower to weakly associated target words following the bread rather than the neutral prime (mean = 808.9 versus 624.7). However, participants did not respond slower to the strongly associated target (butter) following the bread prime (mean = 604.0).

**Discussion:** The findings suggest that implementation intentions cannot break strong habitual associations. Although, an implementation intention attenuated a weak semantic association, the strong semantic association prevailed.

Family focused rehabilitation in acquired brain injury: An application of the Theory of Planned Behaviour

G. WEBSTER, National Spinal Injuries Centre & A. DAISLEY, Oxford Centre for Enablement.

**Background:** Acquired brain injury (ABI) may negatively impact on everyday life, affecting psychological adjustment and participation levels in rehabilitation outcome. Family involvement in rehabilitation benefits both patients and relatives, but is often frustrated due to time pressures. This study aimed to establish whether child relatives of adults with ABI are regularly included in family interventions by UK rehabilitation teams, and to explore factors influencing staff’s decisions about involving child relatives, using Ajzen’s (1991) Theory of Planned Behaviour (TPB).

**Methods:** Design: A cross-sectional postal survey design was used for the main study. A prospective design was used with a sub-sample of participants completing a repeat survey one month later.

**Participants:** 202 multi-disciplinary rehabilitation staff from ABI teams across the UK.

**Measures:** A questionnaire based on the TPB was developed.

**Results:** The data were subjected to logistic regression analyses.

**Findings:** A response rate of 65 per cent was obtained. Few respondents (19.5 per cent) reported carrying out work with child relatives. Perceived behavioural control (PBC) – e.g. access to training, resources and support – significantly predicted whether or not to work with child relatives (explaining 31 per cent of the variance). Behavioural intention and PBC predicted behaviour, but significantly less so.

**Discussion:** Little work is currently carried out with child relatives by ABI rehabilitation staff, partly because of their lack of control in this area. This implies a potentially large unmet need; suggestions for improving service provision to
Manipulating intentions to undergo genetic screening: An experimental study

C. GHOTIE-GWENIN, N. A'CH DAYFDD, A. UNWIN, G. GRIFFITH & V. MORRISON, School of Psychology, University of Wales.

Background: The desire to know genetic risk for disease such as breast cancer varies across individuals. This variation may become increasingly pertinent as genetic science progresses. Identifying factors associated with intention to undergo genetic tests can be 'manipulated' hold important implications for genetic counselling.

Methods: An experimental study examined health beliefs, perceptions and emotions associated with genetic testing intention amongst 163 young adults. Replicating and extending Worgan's work, this study, with experimentally manipulated information about genetic testing given to participants in order to test content and ordering effects on health beliefs, anxiety and screening intention.

Findings: No baseline differences existed. Pre-intervention intention was correlated with perceived susceptibility, perceived personal and perceived barrier, positive attitude, subjective norm, state anxiety, cancer-specific anxiety, and worry. Post intervention changes included:

- Increased susceptibility, positive attitude, subjective norm, reduced barriers, and greater intention in the Positive-Neg group.
- Increased attitude in the Pos-Neg group but no change in Intention.
- Increased perceived barriers in the Neg-Pos Group but no intention shift.
- Reduced benefits in the Control Group.
- Cancer-specific Anxiety reduced in Controls and Neg-Pos group, stayed same in Pos-Neg and increased in the Positive Group.

Regression analysis: 50 per cent of variance in Intention was explained by Experimental Group. Attitude to cancer susceptibility, Subjective Norm, and Cancer Specific Worry.

Discussion: Positive Information is most successful in changing intentions, but in non-directive practice this should be counterbalanced with negative information. A counterbalanced approach did not raise anxiety, whereas Positive information alone, did.

The experience of stigma: Living with Myalgic Encephalomyelitis (ME)

H. WILLIAMS & M. MORRIS, University of the West of England, Bristol.

Myalgic Encephalomyelitis is a chronic illness that has been the subject of much controversy and debate. Individuals with ME have been stigmatised because their condition has often been denied the legitimate status of 'organic disease' (Cooper, 1995). Respondents reported disbelief and a lack of understanding and social support from others, which often resulted in mistrust of conventional medicine and medical professionals. Additional themes emerging from the narratives highlighted the experience of:

- A threatened self image, loss of identity and isolation, which resulted in a pretext to appear normal, a redefined identity, the creation of an expert patient and redefinition of their life goals. These themes are discussed as part of a conceptual model in an attempt to explain their illness experience. This research highlights a need to educate medical professionals and the general public about the true nature of ME, dispelling myths, in order to reduce stigma towards those affected and improve their quality of life.

The influence of morningness–eveningness on cardiovascular stress reactivity


Background: There is a rapidly expanding body of literature investigating cardiovascular reactivity to stress, very few studies have considered the possible influence of circadian variation. It has been shown that chronotype may play an important role in the magnitude of reactivity to psychosocial stressors (Nebel et al., 1996) with 'Evening types' displaying higher cardiovascular levels in the afternoon and 'Morning types' higher in the morning. The present study aimed to build upon this work, while striving to improve some potential methodological weaknesses in this area of research.

Method: 40 participants were classed as Morning or Evening types according to their scores on the Composite Morningness Scale. Using a within-subjects design, they participated in two testing sessions, one in the morning and one in the afternoon.

Findings: Preliminary analyses of 21 participants (12 M-types and nine E-types) reveal a significant interaction between chronotype and time of day upon diastolic blood pressure reactivity, with a trend towards significance for heart rate. Overall, E-types recorded higher levels on all cardiovascular variables.

Discussion: These findings may have implications for the methodology of reactivity testing, as well as important health considerations for people classed high in 'eveningness'.

'As long as nobody knows': Women coping with urinary incontinence


Purpose: Urinary tract problems are common in older women and symptoms often cause a great deal of discomfort, misery and embarrassment. This study investigates women’s beliefs about symptoms, methods of coping and patterns of interaction with health care providers.

Method: Semi-structure interviews were carried out with 21 women (aged 41 to 79 years) who had recently been referred by their GP to a urology unit. Interviews were audiotaped and subjected to Interpretive Phenomenological Analysis.

Findings: Women’s active involvement in the care of other family members led to women assuming the role of ‘health expert’ within the family, facilitating the health of others. In contrast, they often ignored and concealed episodes of urinary incontinence until they became of time concern before seeking medical help seeing it as a normal part of ageing and not a ‘real’ illness. Participants used a wide variety of self-help methods to treat incontinence and symptoms but encountered few experts at covering up episodes of urinary incontinence but these together with their preoccupation with ‘odour problems’ had a serious effect on their quality of life. Medical help was only sought when symptoms became intolerable affecting work, social and personal relationships. The quality of the relationship women had with their GP was important in helping them cope even when treatment was not successful.

Conclusion: This study suggests that women ignore their own health care needs while encouraging others to seek medical advice for health problems due to the widespread acceptance of urinary incontinence as an inevitable part of ageing.

Patients experience of the diagnosis and treatment of skin cancer

A.E. WINTERBOTTOM, MRC Health Services Research Collaborative, Bristol.

Despite the number of newly-diagnosed cases of skin cancer increasing, little is known about the psychological impact of receiving a diagnosis of skin cancer has received little attention. This research aims to examine the experience of being diagnosed with skin cancer from the perspective of the patient. Sixteen patients who had attended the outpatient dermatology clinic at the Bristol Royal Infirmary were interviewed regarding their experiences of being diagnosed with one of three diagnoses of skin cancer. Employing Interpretive Phenomenological Analysis the data were analysed for emergent themes. Similar themes for both the basal cell carcinoma and squamous cell carcinoma patients emerged from the data. Information and knowledge of skin cancer appeared as a key theme, and influenced the patients’ experiences in a variety of different ways. When there was insufficient information patients experienced anxiety and actively sought information in an effort to cope. Attributing a cause was also important in terms of making sense of the illness. The malignant melanoma group utilised a wider variety of strategies in order to cope with the diagnosis, and these varied depending on the stage of the illness. Satisfaction with the healthcare received was crucial to the three groups of patients, played a crucial role in minimising the psychological consequences of the disease.

WILLOTT et al. 2004 Proceedings

The British Psychological Society

2004 Proceedings

63
The impact of learning of a genetic vulnerability to the adverse effects of smoking on the heart: An analogue study
A. WRIGHT, D. FRENCH, J. WEINMAN & T.M. MARTEAU, King's College London.

Background: There is growing evidence that learning about a genetic vulnerability to the adverse effects of smoking on the heart. Informing smokers that they have such a vulnerability may motivate smoking cessation. Protection Motivation Theory (PMT) and the Extended Parallel Processing Model (EPPM) make competing predictions regarding when health risk information will motivate behaviour change, which were examined in this study. The EPPM predicts a threat x efficacy interaction, such that risk information will only have a positive impact on behaviour change when individuals perceive themselves both to be at risk and to have high efficacy. PMT predicts main effects of threat and efficacy in addition to an interaction. Participants receiving positive genetic test results, who perceive high efficacy, were predicted to have the greatest motivation to quit.

Methods: 197 smokers read one of six vignettes, in a three (risk status: gene positive, gene negative or standard smoking risk advice) x two (high or low efficacy) design. Key outcomes were intention to quit, intention to attend an information session, and attitudes towards quitting. Analyses used a three x two ANOVA, with planned contrasts to examine whether the pattern of means best fit PMT’s or the EPPM’s predictions.

Findings: Participants in the gene positive, high efficacy condition had the greatest motivation for smoking cessation. There were significant risk x efficacy interactions for intention to attend an information session and attitudes towards quitting. For intention to quit, the pattern of means best fit PMT’s predictions.

Discussion: While high efficacy individuals with gene positive test results had the greatest motivation to quit, low efficacy individuals who received positive results had decreased motivation. Presenting genetic risk information without taking account of perceived efficacy is unlikely to result in increased motivation for behaviour change.

The effect of psychological stress on symptom severity in patients with gastro-oesophageal reflux disease
C.E. WRIGHT, University College London.

Background: The investigation extends previous research examining the relationship between stress and gastro-oesophageal reflux disease (GORD). It was hypothesised that exposure to psychological stress, would produce a significant increase in reflux episodes (the number highly acidic gastric secretions reaching the oesophagus).

Methods: 42 patients attending St. Thomas' Hospital Oesophageal Investigation Unit, for 24-hour monitoring of oesophageal pH levels completed the experimental between-groups study. During the last two hours of this monitoring period 21 patients received the TSST (a 15-minute stressor involving public speaking and mental arithmetic tasks) while the remaining participants were randomly assigned to the no-stress condition. Subjective anxiety and symptom ratings were obtained one minute pre-test, one minute post-test and 30 minutes post-test.

Results: The TSST induced a significant increase in anxiety (p = 0.001); however, this was not associated with any increase in reflux episodes (p = 0.17). Interestingly, the experimental group demonstrated an inability accurately to identify their level of symptom severity (r = 0.26, p = 0.25). In comparison the control group correctly associated actual and reported pH levels (r = 0.52, p = 0.01). A similar trend was also established for participants who reported greater anxiety or demonstrated a vulnerability to stress.

Conclusions: This (inaccurate) perception of increased reflux when one is stressed may contribute to low response rates for traditional treatments, therefore, highlighting a need to bridge the gap between psychological theory and clinical practice in order to develop more successful GORD therapies in the future.

Emotional factors and decision making about childhood immunisations
A.L. WROE, Institute of Psychiatry, King's College London & H. BEDFORD, Institute of Child Health.

Aim: Previous research has suggested that decisions about immunisations are strongly influenced by emotional factors such as responsibility and anticipated regret if harm were to occur (Wroe et al., 2003). This suggests that decisions may be biased by an assumption that causing harm through action is worse than allowing harm to occur through inaction, known as ‘omission bias’ (e.g. Baron, 1990). This research was conducted outside the UK and considered only early childhood immunisations.

The study described in this paper is a prospective study conducted in UK to investigate the role of emotional factors in carers’ decisions about the Measles, Mumps, Rubella (MMR) vaccine, an issue that has received much media attention.

Method: Carers (N = 100) of children aged 10 to 12 months completed a structured telephone interview about the MMR vaccine. This included questions about the immunisation decision, perceptions of risks of the diseases and risks of the immunisations, as well as questions about feelings of responsibility for harm, and regret of decisions leading to harm. Carers were contacted after the date of the first expected immunisation, to ask about the final decision whether to immunise the child.

Results: Regression analyses and t-tests suggest that the decision is strongly influenced by emotions related to omission bias (anticipated responsibility and regret), and less so by utilitarian type factors (perceptions of benefits and risks of immunisations).

Discussion: The research suggests that decisions about MMR are strongly influenced by emotions such as anticipated regret and responsibility. Clearly, any intervention to aid such decisions must address omission bias.
Drug-related deaths in policy custody
D. BEST, Police Complaints Authority.
Between 1998 and 2003, 153 people have died in police care or custody. While the police have been responsible for reducing the number of deaths by hanging, the number of substance-related deaths continues to rise, but in a manner that is not consistent with national death data for England and Wales. There are three main types of drug death that occur in police custody:
1. Accidental overdoses (which are relatively infrequent).
2. Deliberate overdoses (again relatively infrequent).
3. Drug swallowing deaths.
The latter is a particular cause for concern as it is strongly linked to the concealment of cocaine at the point of arrest. Once drugs, which are often stored in the mouth or hand, are generally not packaged for passage through the body and death will result from one, or a combination, of hypoxia, a rupture in the package resulting in heart failure or brain haemorrhage, or a syndrome referred to as ‘excited delirium’. Excited delirium deaths involve a hyperthermic effect (often evidenced by the removal of all clothing), unpredictable and possibly violent behaviour, followed by intense struggle. It is often linked to police restraint, increasing the hyperthermic effect, and resulting in sudden death from heart failure. There is scope for a harm reduction initiative for difficult users, but considerable need for an improvement in understanding the effects of cocaine and crack, and their morbidity and mortality risks.

Social behaviour and network therapy
A. COPELLO, Birmingham University.
Social behaviour and network therapy (SBNT) is a structured psychosocial treatment designed to help people affected by alcohol and/or drug problem. Central to this treatment is the premise that ‘social support for change’ is a key ingredient in the recovery process. Social behaviour and network therapy has been developed from a range of social treatments with evidence to support the part of the intervention, in addition to the person with the alcohol and drug problem, those closely affected by the alcohol or drug use (e.g. family members and friends) are invited to the treatment sessions. Within the sessions a range of strategies are used to support the user’s efforts to change. The duration of SBNT to alcohol problems is currently under evaluation in the United Kingdom Alcohol Treatment Trial (UKATT). This paper describes the intervention structure and session content. In addition, results from a pilot study conducted with drug users in the Birmingham Community Addiction Services are presented. As part of this pilot study drug therapists (N = 20) were trained and supervised to deliver SBNT. The pilot study showed that the treatment could be delivered with a range of drug problems presenting in community drug teams. Finally, a case study illustrating the treatment components and processes is presented and discussed.

Beyond the K hole
H.V. CURRAN & C. MORGAN, University College London.
Ketamine is widely used as an anaesthetic for both humans and animals. It is also a drug that is used ‘recreationally’ and known as ‘Special K’. In healthy volunteers, ketamine acutely impairs memory and produces symptoms and dissociative symptoms. In recreational users, ketamine produces these same acute effects, but three days after drug use, persisting memory impairment compared with controls (Curran & Morgan, 2000). To explore whether such persisting effects reflect residual or chronic effects of ketamine use, we took ketamine (0.4, 0.8 mg/kg) or placebo to 54 healthy volunteers and assessed them on the day they had the drug and again three days later (Meyers & Smith, 1995; press). The healthy volunteers liked the drug and rated it as one of the best they had tried. This suggests that impairments seen in recreational users are either chronic effects or pre-existing differences between people who do and do not use ketamine. To differentiate between those two possibilities, Curran and Monaghan (2001) compared frequent with infrequent users of ketamine on the night of drug use and again three days later. Acute effects in both groups on day zero replicated previous findings. On day three the frequent users were significantly impaired on episodic and semantic memory tasks compared with infrequent users. Taken as a whole, these findings suggest that frequent use of ketamine produces long lasting impairments in memory.

Stepped care and alcohol treatment
C. DRUMMOND, Dept of Addictive Behaviour, St. George’s Hospital Medical School, University of London.
Alcohol problems are common in medical settings including primary care, general hospitals and psychiatric hospitals. Although suicidal drug users may not be detected or addressed in routine clinical practice. In contrast there is a significant body of evidence for the effectiveness of brief interventions and opportunistic alcohol interventions from clinical trials to a wide range of countries and health settings. Barriers to implementation of evidence based interventions include practitioners’ attitudes, training, and perceived support from specialist addiction services. Stepped care intervention provides a pragmatically simple way of implementing appropriate alcohol interventions and a model of joint working between addiction specialists and primary care practitioners. A model of screening and stepped care intervention employs a practical method of integrated care catering for patients with a range of severity of alcohol problems in primary care. This needs to be tested in other medical settings.

The Community Reinforcement Approach (CRA): What it is, how to do it and the evidence base
J. GARDIN II, Life Link Training Institute, Santa Fe.
CRA is a cognitive-behavioural intervention for the treatment of substance abuse problems. Developed in accordance with the belief that environmental contingencies play a crucial role in an individual’s addictive behaviour and recovery, CRA utilises familial, social, recreational, and occupational reinforcers to support the individual in changing his or her drinking/using behaviours and in creating and supporting a successful environment where sobriety is positively reinforced and substance abuse is discouraged (Azrin, 1976; Hunt & Azrin, 1973). The CRA programme begins with a functional analysis of the individual’s different components that maintain or compete with drinking and/or using. Next is the introduction of ‘sobriety sampling’. This is a motivational technique that allows the client and the therapist to negotiate a period of sobriety. Some drinking clients may require disulfuram (Antabuse) to abet this period of sobriety. In these circumstances, it is essential to have a supportive disulfuram monitoring (a significant other in front of whom the disulfuram is consumed and who accompanies the client to all sessions). The introduction of the CRA plan subsequently follows, which seeks to increase happiness in other, non-drinking/non-using areas of life. This will entail skills training (e.g. problem solving, drinking refusal, etc.), along with job and relationship counselling. As clients improve their drinking/using they will find themselves with time for seeking new activities or social circles that are not centred around alcohol or drugs. Models for preventing relapse and maintaining sobriety round out the program (Meyers & Smith, 1995; Smith & Meyers, 2001a; Smith, Meyers & Miller, 2001; Miller & Meyers, 2002).

Evidence-based psychological treatments
M. GEORGE, Consultant Clinical Psychologist, West Sussex Substance Misuse Services.
In 2001, West Sussex Drug and Alcohol Action team were selected as a pilot site for the National Treatment Agency (NTA) pilot of the Enhancing Treatment Outcomes (ETO) project. This project was designed to explore the implementation issues associated with the Models of Care document (Abramiah et al., 2001), which provides a National Services Framework for substance misuse services in England and Wales. Dr. Mike George, was seconded to lead up the project. The newly designed and implemented pilot was based on the NTA 2002, a triage assessment tool as the ‘front end’ for all substance misuse services in the county was based on the template offered by Dr. John Marsden at the Maudsley Hospital. All new referrals and self-referrals are now offered a triage assessment within ten working days. Four full-time triage co-ordinator posts support the triage framework. Workers in tier 2 (open access, low threshold) services have also been trained to conduct triage assessment on clients who self-refer to their agencies. Of the 2117 new referrals received across the county, 40 per cent were primary drug referrals and 60 per cent alcohol. Of these, 1940 were offered triage assessment and 1473 (76 per cent) attended. Of the total triage attenders, 49 per cent were referred to statutory drug and alcohol problem teams. The remaining 51 per cent were referred to alternative services across all four tiers of the treatment framework. This reorganisation of the workforce led to a significant reduction in waiting times at all parts of the service framework. Models of Care (MoC) have now been adopted as the template for national services. West Sussex’s involvement in the pilot has enabled the county to move swiftly towards compliance with the MoC framework and offer advice and support to other Drug Action Team areas to implement the service delivery and quality standards which the framework sets out.

Cocsting alcohol: What are the issues and what do we know?
C. GODFREY, Dept of Health Sciences, University of York.
Any economic model is based on a number of behavioural assumptions. In this presentation economists’ views on the nature of addiction, risk and information are examined in relation to their effect on estimates of the social costs of alcohol and the cost effectiveness of interventions. Economic models rely on the assumption that cost-effectiveness (or cost-benefit) studies the consequences being made for example between a new treatment and usual care. For social costs models the costs (and benefits) of current alcohol consumption are compared to the unrealistic hypothetical situation that there was no alcohol consumption. It is also generally assumed that
individuals know the risks of alcohol (and hence balance individual costs and benefits in their consumption decisions) and also make economically rational decisions. Has the absence of recent social cost estimates played a part in the policy neglect of alcohol issues in the UK? Is there insufficient evidence of the cost-effectiveness of alcohol interventions? The answer to both questions may be a partial yes, but that many state and local health and psychosocial services in the long term can prevent deaths and save NHS resources. One study in England found 400 heavy drinkers not in treatment had medical costs of £1 million. A number of other studies are underway, including a full new social cost estimate from the Cabinet Office and a few other jurisdictions of different treatment. The question remains, however, whether this or other governments will adopt evidence-based policies, which seek to reduce alcohol related harm.

Twelve step facilitation in the NHS S. THOMAS, Leeds Addiction Unit.

This will begin with a brief look at the Twelve Step Movement, its development, and some of the differences between those treatment. This will conclude with a very swift overview of the UK as regards Twelve Step treatment. Then, a necessarily brief examination of the evidence base for the efficacy of attendance at the Twelve Step meetings and Twelve Step treatment method – some of the principles suggested as the mechanisms for this efficacy will also be mentioned. The presentation will then go on to focus on the experience of one busy, large NHS Addiction Unit in setting up a Twelve Step Day Programme, including a discussion of how our programme is entering into this process. The programme works alongside the criminal justice system, as it was initially created for attendance at the Unit under a Drug Treatment and Testing Order. The combination of this setting, coerced out-patient clients with a ‘spiritual’ programme will also be discussed, with particular reference to delivering a Twelve Step treatment alongside harm reduction, motivational enhancement therapy and cognitive behavioural workshops. There will be a discussion of some of the implications of the emergence of Twelve Step Fellowships and treatments are for us as practitioners, and how we may best use the resources available to us.

The role of psychology in the management of addiction services R. VELLEMAN, Director, Mental Health Research and Development Unit, University of Bath.

This paper will look at the skills, which are needed to set up and run specialist drug and alcohol services. It will argue that clinical psychologist should be involved in undertaking this role, and will question why (until fairly recently) so few have followed this path. It will conclude by examining the benefits of this, which could emerge both for services and for the profession of clinical psychology, and will examine some of the pitfalls which might lie in wait for psychologists who decide to follow the management/leadership pathway.

Psychological principles in the treatment of tobacco dependence R. WEST, Weymouth, Bournemouth University, Dept of Epidemiology, University College London.

Pharmacological treatment, in the form of Nicotine Replacement Therapy and Zyban, to aid smoking cessation, has been well established. It has also been established that ‘structured behavioural support’ can increase the chances of success of an attempt to stop smoking by about 15 percentage points at four-weeks and seven percentage points at 12 months. Projecting into the longer-term, a treatment episode involving a weekly hour-long sessions up to four weeks post quit, with a 40-year-old smoker is estimated to yield an average reduction of about one ‘pack year’ of smoking which translates crudely into about four months of life expectancy. There have been numerous attempts to apply psychological principles to the development of treatment. Methodological issues have so far prevented drawing clear conclusions about what approaches are better than others. Critical among these are the need for very large samples and biochemical confirmation of abstinence. This paper reviews ongoing research in this area including use of self-help, social support, treatments tailored to ‘stage-of-change’, and treatment tailored to cognitive and behavioural patterns (Hermanson).


Aims: Does Early Warning Signs Relapse Prevention Treatment prevent relapse in alcohol dependent persons with history of relapse?

Design: Randomised trial comparing (1) Aftercare plus 14 individual sessions of EWSRPT (intervention), Assessment at entry, and five relapse? (2) Aftercare as Usual plus 15 individual sessions of EWSRPT (intervention). Assessment at entry, and four relapse? (3) Usual Care NHS Trust, Hillingdon NHS Primary Care Trust.

Aims: Does psychological status, independent variables consisted of somatic symptoms, anxiety, social dysfunction and depression. Four-week abstinence from smoking was treated as the dependent variable. Setting: The study was based on data collected at the Specialist Smoking Cessation Service at Hillingdon Hospital.

Does psychological status affect the outcome of a group intervention for smoking cessation? J. CASSON, C.C. CHI, A. GARDINOPOULOU & D. SHAH-ARMON, Specialist Smoking Cessation Service, Hillingdon NHS Primary Care Trust.


Aims: To examine the relationship between childhood abuse and current psychiatric and trauma symptoms in substance misusing participants. Design: A cross-sectional study, using standardised psychometric questionnaires. Participants: 22 clients (13 men, nine women) presenting to the Cornwall Drug & Alcohol Team. Findings: Half of the 22 clients interviewed reported a history of severe or extreme childhood trauma (sexual, physical or emotional, or a combination of these) as measured by the Childhood Trauma Questionnaire (Psychological Corporation). Statistically significant correlations were observed between the extent of childhood abuse and current mental health and trauma symptoms. Conclusion: The importance of acknowledging that many clients presenting to substance misuse services may have experienced childhood trauma, and that this is associated with higher levels of mental health difficulties, is highlighted. It is suggested that, in addition to substance misuse treatment, clients require assessment and treatment for existing mental health difficulties and unresolved childhood trauma experiences. An understanding of the relationship between self-medication in the use of substances is also stressed as a crucial aspect of treatment provision.
smoking are influenced by their psychological well being and underline the need for a more thorough examination of the role of somatic symptoms and depression in influencing the effectiveness of group interventions for smokers.

**Determinants of abstinence from smoking following a seven-week group intervention**

C.C. CHRYSSANTHOPLEOULOU, D. SHAH-ARMON & V. SAUNDERS, Specialist Smoking Cessation Service, Hillingdon NHS Primary Care Trust.

**Aims:** The present study aimed to determine which factors, if any, influenced the effectiveness of a group intervention for smoking cessation. The variables examined were nicotine dependence, motivation to quit, mood, and socio-demographic characteristics.

**Design:** Nicotine dependence, motivation to quit, mood, and socio-demographic characteristics were treated as independent variables. The dependent variable was four-week abstinence from smoking.

**Setting:** The Independent Assessor served a number of clients on the Withdrawal-Oriented Therapy service at Hillingdon Hospital.

**Participants:** Ninety-two participants were interviewed and took part in the intervention through a self-report questionnaire. Four-week abstinence was measured via carbon monoxide levels in expired breath at the final session of the programme.

**Intervention:** Participants attended a seven-week treatment programme based on the Withdrawal-Oriented Therapy for smokers (Hajej, 1989).

**Findings:** Significant differences emerged between successful quitters (N=246) and non-quitters in terms of socio-demographic characteristics and motives for smoking. Successful quitters were more likely to be older in age and have a higher level of stress as a motive for smoking compared to those who were unsuccessful.

**Conclusions:** Results suggest that the effectiveness of group interventions following the Withdrawal-Oriented Therapy model may be influenced by smokers’ age. Findings also highlight the role of stress as a potential risk factor for relapse and underscore the importance of considering psychological factors for smokers going through maintenance in future psychological interventions for smokers.

**Preaching to the unconvinced: A study of Hepatitis C in primary care**

J. FERNANDEZ, Substance Misuse Services, Childhood and Islington Mental Health Services, Islington Community Health Trust.

**Introduction:** Hepatitis C is a virus that can cause liver disease; it can lead to years of ill health and can kill. Yet Hepatitis C is preventable. It can only be caught through blood contact, or more rarely other body fluids. For this reason the largest group of people affected by Hepatitis C and those classified as injecting drug users. If drug users can be encouraged to change their behaviour than the rate of incidence of Hepatitis C will be reduced. The purpose of this study is to identify client awareness of preventative measures around blood-borne viruses. This will include questions asked around those viruses most common in drug users. The Brent study (1999) showed large differences in clients’ knowledge of avoiding blood-borne viruses which is crucial to the spread of Hepatitis C.

**Aim:** A 28-item self-report questionnaire assessing various aspects of patient satisfaction was distributed to clients entering the Hillingdon Drug and Alcohol Service who received an individual detoxification (June 2002 and July 2003).

**Participants:** 20 individuals returned completed questionnaires, a response rate of 42 per cent. Nineteen presented for alcohol detox and one presented for a methadone detox. Five clients experienced detoxification at a specialist addiction centre whilst 15 received their detox at one of two general psychiatric wards.

**Findings:** Clients reported satisfaction with the nursing care they received on the wards. Whilst some individuals who were identified as parents by their children, mean age = 43.2, mean number of children = 2. The most problematic substance clients identified was alcohol followed by tobacco, cannabis and methadone.

**Conclusions:** Clients generally scored higher on the nurturing scale which was expected. However, there was a discrepancy between the clients’ verbal reports of their experience on the wards to drug and alcohol service staff and the way the forms were completed.

**The effectiveness of ‘buddy’ systems for smokers attending a seven-week smoking cessation intervention**


**Aims:** The present study aimed to investigate the role of ‘buddy’ systems in helping individuals attending a smoking cessation treatment programme remain abstinent.

**Design:** A retrospective design was employed. The use of a ‘quit-mate’ was measured via carbon monoxide levels in expired breath.

**Findings:** Preliminary results showed that smokers who had a ‘quit-mate’ were more likely to be abstinent at four weeks. Among those who had utilized this support system, those who had kept in frequent contact with their ‘quit-mate’ during the treatment were more likely to remain abstinent compared to those who had not.

**Conclusions:** These findings indicate that ‘buddy’ systems may constitute a useful component of interventions for smoking cessation. Encouraging smokers to maintain frequent contact with their ‘quit-mate’ may provide them with additional emotional and practical help to cope with withdrawal symptoms and cravings experienced during the first month of quitting.

An exploratory study examining the types of attachment relationships between parents who substance misuse and their children.

J.M. LITTLE & D. SHAH-ARMON, Specialist Smoking Cessation Service, Hillingdon NHS Primary Care Trust.

**Aims:** To explore the type of attachment relationships between parents who substance misuse and their children. To increase our knowledge of their experiences.

**Design:** Questionnaire administered to clients, in June 2003, attending a Drug and Alcohol Service who were identified as parents by their children. They were asked to complete ‘The attachment questionnaire’ (modified Child Rearing Practices Report Rickel &Biasatti, 1982) with additional demographic and substance misuse history.

**Participants:** Five clients completed the questionnaire, all of whom were the main carer for their child, mean age = 43.2, mean number of children = 2. The most problematic substance clients identified was alcohol followed by tobacco, cannabis and methadone.

**Findings:** On Nurturance Scale of the attachment questionnaire mean = 62.6, Std = 9.66, Range: 17–82 with the higher score indicating greater nurturance. On the Restrictiveness Scale: The mean = 54.6, Std = 12.97, Range: 22–88 with the higher score indicating greater restrictiveness. Seventy-one per cent strongly agreed that their use was negatively impacting on their relationship with their child, 14 per cent said that it was negatively impacting on their relationship with their child, whilst 57.2 per cent said that it was not negatively impacting on their relationship with their child, whilst 15 per cent of the children were misusing substances.

**Conclusions:** Clients generally scored higher on the nurturance than the restrictiveness scale however the small sample size prevents any generalisations being made. Further research is required in this field with larger samples.

**Factors influencing access to drug and alcohol treatments for ethnic minority groups**


**Aims:** To increase our understanding of factors influencing access to substance misuse treatment for ethnic minority groups, and thereby
provide more appropriate treatment options.

**Design:** Cross-sectional design. A self-administered questionnaire randomly given to clients attending a community drug and alcohol team.

**Participants:** 53 clients, mean age 32 years (range 18–60 years). Forty-five male; 20 were from black and ethnic minority (BME) groups.

**Measurements:** A semi-structured questionnaire measuring demographic details, substance use and factors influencing access to treatment and client-staff matching for ethnicity.

**Findings:** The majority (75 per cent) of BME clients were Asian. Sixty per cent of all clients were attending for heroin treatment. In both BME and non-BME groups, pervasive barriers to treatment were feeling of shame, waiting lists and concern that a third party would be informed. There was a significant difference between BME and non-BME groups in wanting staff to know about their cultural background ($\chi^2 = 6.43, df = 1, p < 0.05$). Interestingly, the majority in both groups did not wish to be seen by a clinician of the same ethnicity. Both groups also reported they would find relapse prevention and individual counseling helpful.

**Conclusions:** The findings suggest that BME and non-BME groups are similar in terms of presenting problems and barriers they perceive in accessing treatment. Understandably, significantly more BME clients thought it was important for clinicians to be aware of their culture, yet they did not wish to be ethnically-matched with their worker, suggesting they may feel judged in such situations. Research findings will be discussed in terms of service provision.
The contribution of the human hippocampus to recognition memory

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Objectives: The study contrasted two models of the anatomy of human declarative memory that make quite different predictions concerning the importance of the human hippocampus for recognition memory.

Design: The single case study involved subject KN (44-year-old man), who had suffered bilateral hippocampal pathology (50 percent volume loss) as a result of meningitis 10 years prior to the study. Comparisons were made with normal control subjects.

Methods: Subjects completed standard tests of memory (Wechsler Memory Scale-revised, Warrington Recognition Memory Test, Doors and People, Calev Test) in addition to a task designed to separate putative components of recognition (‘known’ and ‘false positive’). Three ‘event-related potentials’ (ERPs) were made during tests of word recognition.

Results: Subject KN remains densely amnesic as measured by recall scores, e.g. 88 General Memory WMS-r, 50 Delayed Recall WMS-r (the latter score is at floor). His recognition performance was impaired, ranging from the normal to the mildly impaired. On tests of verbal recognition he consistently performed well (e.g. Warrington RMT 75 per cent). Doors and People recognition performed at 25 per cent which contrasted with his recall (e.g. Doors and People name recall one per cent, Calev Test Recall 15 per cent). ROC analyses of word recognition were consistent with a reliance on ‘familiarity’, while ERP measures correctly identified old and new items although the ERP signature of recollection was not part of this signature.

Conclusions: Although KN is densely amnesic, aspects of recognition memory are relatively spared. His apparent preservation of familiarity provides strong support for dual process models of recognition that assume that different processes (familiarity, recall) depend on different brain structures.

Measuring the effects of functional foods: Methodological minefield?

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Background: Consumption of certain macronutrients is thought to lead to metabolic and biochemical changes that may influence subsequent brain function, including cognitive ability and appetite response. The paper draws on studies of the acute effects of macronutrients and glycaemic index on cognitive performance and subjective state to discuss methodological and practical issues in relation to the use of functional foods.

Methods: Randomised, double-blind, placebo-controlled trials were conducted in which the effects of functional foods on cognitive performance were measured. The effects were assessed using a battery of computerised cognitive tests, subjective evaluation, and biochemical changes that may influence cognitive performance. The magnitude of metabolic and/or biochemical changes that are required to induce/detect a change in cognitive function and the potential to suppress/compensate for changes in energy and macronutrient supply as result of nutritional manipulations with different glycaemic indices are discussed.

Increases in Secretory Immunoglobulin A following disgust

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Objectives: To investigate the influence of gender on the immune system in response to the induction of the ‘passive stressor’ disgust.

Design: A three-factor design was employed. Matched male and female subjects were randomly allocated to either a disgusting or neutral condition. Three measures of S-IgA were collected (immediately before, immediately after and 10 minutes after the manipulation).

Methods: A pilot study was conducted to ensure that the film clips employed evoked a significantly higher disgust rating than seven other emotional dimensions, assessed by a modified version of the Differential Emotions Scale. The clips were matched for length (10 minutes), visual content, and a 10-minute neutral film sequence for the experimental stimulus, and a 10-minute neutral clip sequence for the control condition. Forty-two participants were randomly allocated to either the disgust condition (14 women and 12 men), or neutral condition (11 women and five men). The three saliva samples were collected (immediately before, immediately after and 10 minutes after the manipulation).

Results: In contrast to previous findings, the study results suggest that S-IgA levels are immediately following the induction of disgust for both males and females.

Conclusions: The implications for our results will be discussed in relation to the status of disgust as a ‘passive stressor’.

Effect of meals varying in glycaemic index on cognitive performance and subjective perceptions of performance


Objectives: To investigate the effects of two carbohydrate meals with a high or low glycaemic index on objective, cognitive performance and subjective performance evaluation.

Design: A fully repeated measures design incorporating two conditions and three measurement periods; baseline, post-lunch and delayed post-lunch (mid-afternoon).

Methods: An opportunity sample of 12 males and nine females (mean age 25 years) were recruited. Glycogen stores were controlled by a series of single-blind repeated six times over the subsequent hour.

Results: The pre-loads exerted + 45 minutes (cognitive battery one); + 105 minutes (cognitive battery two) and + 110 minutes (cognitive battery three). Blood glucose was measured prior to and following the first and second cognitive testing battery. Visual analogue scales were expected to be measured.

Results & Conclusion: The pre-loads exerted different metabolic effects, yet resulted in no significant differences on mood, appetite or cognitive performance. The magnitude of metabolic and/or biochemical changes that are required to induce/detect a change in cognitive function and the potential to suppress/compensate for changes in energy and macronutrient supply as result of nutritional manipulations with different glycaemic indices are discussed.

Cognitive and mood effects of acute doses of caffeine in habitual consumers and habitual non-consumers of caffeine

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Objectives: Most studies into the behavioural effects of caffeine involve caffeine-deprived, habitual caffeine users. It is therefore unclear whether any beneficial effects, such as due to the positive effects of caffeine or to the alleviation of caffeine withdrawal. The present study therefore investigated the acute cognitive and mood effects of caffeine in frequent and infrequent caffeine consumers.

Design: The study employed a randomised, balanced-crossover design involving 24 habitual caffeine consumers (mean = 217 mg caffeine/day), and 24 habitual non-consumers (mean = 20 mg/day).

Methods: Following a baseline assessment participants (who were overnight caffeine-deprived) received a 150 mg caffeine or 75 mg or 150 mg of caffeine or a matching placebo. Treatments were administered according to a Latin Square with a wash-out period of not less than seven days. Treatments were undertaken 30 min. post-drink and included the Cognitive Drug Research computerised test battery, two serial subtraction tasks, a sentence verification task and mood scales.

Results: Cognitive and mood effects were discussed in relation to the status of disgust as a ‘passive stressor’. These results cannot be explained by a simple withdrawal alleviation model. Rather, they indicate that caffeine produces a complex pattern of behavioural effects which differ with respect to task and daily caffeine consumption levels.
Mood effects of Melissa officinalis (Lemon Balm) during acute psychological stress

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Objectives: Melissa officinalis (Lemon Balm) has a longstanding history in herbal medicine as a hypnogenic and anxiolytic agent. We have recently reported positive cognitive and mood effects of Melissa officinalis. The present study examined the effects of Melissa officinalis on mood changes in response to mild, experimentally induced psychological stress. Performance on a series of tasks was also monitored.

Design: A randomised, placebo-controlled, double-blind, balanced cross-over study involving 18 healthy adults was used.

Method: Participants received placebo, 300 mg and 600 mg of Melissa officinalis according to a Latin Squares design with a seven-days wash-out period. On each visit, treatment was administered immediately after completion of a baseline session with the experimental session commencing five minutes later. The Defined Intensity Stressor Simulation (DISS) is a multi-tasking platform and was used to induce mild psychological stress. DISS was assessed using Bond-Lader Visual Analogue Scales immediately prior to, and immediately following the DISS.

Results: Results revealed significantly increased ‘calmless’, and reduced ‘alertness’ following the administration of the 600 mg dose of Melissa officinalis, in comparison to placebo. The 300 mg dose significantly reduced speed of mathematical processing, with no reduction in accuracy.

Conclusions: It appears that Melissa officinalis, taken at moderate doses, has beneficial mood effects during mild psychological stress. Furthermore, there was no evidence of any ‘cost’ to performance associated. The underlying mechanisms remain to be elucidated, and further investigation is necessary to establish whether the observed effects would be found in more naturalistic settings.

Social cognition in epilepsy


Aims & Objectives: Social cognition is an important but neglected area of study in the field of epilepsy. The present study aims to assess performance on ‘theory of mind’ (ToM) tasks in relation to epileptic seizure foci in order to investigate the organic basis of ‘theory of mind’ abilities and to enhance our understanding of social cognition in epilepsy.

Design: This study included six groups (N = 68) patients with clearly defined seizure foci in the right and left pre-frontal cortex, the right and left temporal lobes, a primary generalised epilepsy group and a group of normal controls.

Methods: All patients were recruited from a tertiary referral unit. Patients were assessed on two ToM measures, their appreciation of deception and false belief in ToM stories and their ability to infer the veiled intentions behind speech acts in a Hinting task. Patients were also assessed on a story recall using a sub test from the Adult Memory and Information Processing Battery and IQ was controlled for using the Quick Test.

Results: The epilepsy groups illustrated poor story recall. ANCOVA was conducted with group between participants. Dependent variables were first order generalisation of stories as hints, and immediate story recall was included as a covariate. Analyses revealed that only the right frontal group differed significantly from controls in hints and story recall. Right frontals also differed significantly from the other groups on ToM but not on hints.

Conclusions: Findings suggest that impairment in theory of mind may be a particular feature of right frontal lobe pathology, this deficit appears not to be mediated by poor logical memory.

Further evidence for deficits in the updating executive component of working memory in users of MDMA (ecstasy)


Objectives: Research has demonstrated working memory (McCann et al., 1999) and central executive (Warne et al., 2000) deficits in recreational ecstasy users. From the perspective of Miyake et al.’s construct of a fractionated executive system, it appears to be the updating component that is most susceptible to the effects of recreational ecstasy use (Warne et al., 2002, Montgomery et al., 2003). Tests that supposedly load on this component have shown an MDMA related deficit (e.g. random letter generation, associative learning, computation span). However, a test (running memory) that requires the updating component has not been used before with ecstasy users.

Design & Methods: 21 ecstasy users (mean age 21), and 22 non-ecstasy user controls (mean age 22) were tested on the updating function with a running memory span task requiring participants to watch chains of consonants of unknown length (between six and 12 letters), and to serially recall the most recent six items. Participants were required to complete 24 trials in total, including eight practise trials. A mixed design was used with user group (ecstasy user/non-user) as the between participants variable, and two recall measures (i.e. speed of sequential position) as the within participants variables.

Results: There was a significant between subjects effect with ecstasy users performing worse than non-users on the running memory test. Although there were no significant interactions, the interaction between serial position and ecstasy approached significance. The effects of ecstasy on memory updating remained statistically significant after control for working memory and central executive capacity, and also the use of other drugs.

Conclusions: The results of the present paper further support the position that it is the updating component of the central executive that is most susceptible to ecstasy use. The results are discussed in light of neuromaging studies of memory updating, and a possible location for the localisation of the updating component is considered.

Psychobiological aspects of liver transplantation: A controlled, national, prospective, single-centre study

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Objectives: Liver transplantation is a well-established treatment for liver failure. Prolongation in survival is accepted, but the long-term effects of liver transplantation on cognitive and psychological outcome are unclear.

Design: In the present study, psychological data were collected prospectively in patients who were assessed for liver transplantation and were commenced with two cytokine inhibitor therapies, cyclosporin and tacrolimus. Severity of liver disease at assessment was significantly associated with slowing of reaction time. Memory impairment distinguished those who were not listed for transplant compared to those successfully transplanted. One-year post-transplant follow-up data from transplanted patients revealed significant improvement in most psychological domains related to both health and mood. Patients with chronic liver disease who were not transplanted. Immunosuppression (cyclosporin versus tacrolimus) did not have differential effects on quality of life (QoL), fatigue or affective status, although those taking cyclosporin showed greater improvements at one-year follow-up on simple and choice reaction times. Good psychological outcome at one-year was generally maintained at three-year follow-up.

Conclusions: Cognitive impairment is commonly observed in liver transplant candidates. Improvements in cognitive function and QoL generally occur following successful transplant, but residual individual impairments may remain. Further research is needed to determine how residual cognitive impairment may impact upon everyday activities, e.g. driving ability.

Effects of testosterone on mood, aggression and sexual behaviour in young men: A double-blind, placebo-controlled, cross-over study

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Objectives: The prospects of wider application of testosterone (T) in novel indications such as male contraception have prompted renewed interest in the investigation of non-reproductive actions and safety of androgens. The aim of this double-blind, placebo-controlled, cross-over study is to investigate potential changes in mood and behavior in response to short-term variations in circulating T concentrations produced by the new long-acting parental preparation, T undecanoate.

Method: 28 healthy, eugonadal men (aged 22 to 44 years) were randomised into one of two treatment groups. A1: oral treatment – eight week period commencing 1000 mg of T i.m. A2: washout phase (no treatment) – eight weeks followed by A3: placebo phase – receiving 4 mL of castor oil i.m. (T vehicle) – eight weeks. B1: placebo phase – 4 mL of castor oil i.m. – eight weeks. B2: washout phase (no application) – eight weeks followed by B3: active phase – receiving 1000 mg of T i.m. – eight weeks. B4: placebo phase – 4 mL of castor oil i.m. – eight weeks. B2: washout phase (no application) – eight weeks followed by B3: active phase – receiving 1000 mg of T i.m. – eight weeks. B4: placebo phase – 4 mL of castor oil i.m. – eight weeks. B2: washout phase (no application) – eight weeks followed by B3: active phase – receiving 1000 mg of T i.m. – eight weeks. B4: placebo phase – 4 mL of castor oil i.m. – eight weeks. B2: washout phase (no application) – eight weeks followed by B3: active phase – receiving 1000 mg of T i.m. – eight weeks. B4: placebo phase – 4 mL of castor oil i.m. – eight weeks. B2: washout phase (no application) – eight weeks followed by B3: active phase – receiving 1000 mg of T i.m. – eight weeks.
Ecstasy tablets have largely comprised MDMA, except during the mid-1990s
A.C. PARROTT, School of Psychology, University of East London.

Rational & Objectives: It is widely recognised that ecstasy tablets sold as ‘ecstasy’ contains MDMA (3,4 methylenedioxymethylamphetamine). This paper reviews the origins of the problem, and usage levels have since changed significantly at first used recreationally.

Methods: Surveys into the pharmacological constituents of ecstasy tablets, and subjective reports of the experience provide the main empirical data for this review.

Results: From the mid-1970s to the early 1990s ecstasy tablets were predominately composed of amphetamine, except during the mid-1990s, although many tablets contained MDMA, many of the others comprised MDA (3,4 methylenedioxyamphetamine), or MDEA (3,4 methylenedioxyethylamphetamine), often as amphetamine drug mixtures. Average usage levels were often low during this period. Furthermore a high proportion of users reported using no other psychoactive drugs such as cannabis, heroin, ketamine, paracetamol, or placebo. Then in the late 1990s, the proportion of ecstasy tablets containing MDMA increased to 80 to 100 per cent. By the early 2000s purity levels of around 90 to 100 per cent have been reported. The historical reasons for this problem, also the social and psychological implications will be debated (Parrott, in press).

Conclusions: The ecstasy purity problem was mainly a phenomenon of the mid to late 1990s, when many tablets contained substances other than MDMA. However, before and since then, the proportion of ecstasy tablets containing MDMA has been far higher, and complaints from users been less frequent.

Neuroscience for chronic, treatment-refractory, depression: Subsequent deficits in emotion recognition and social perception?
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Objectives: The aim of the current study was to establish if patients who had undergone a neurosurgical intervention for chronic, treatment-refractory, depression (combined anterior cingulotomy/anterior capsulotomy) would exhibit deficits on a novel test of emotion recognition and social perception.

Methods: Seven neurosurgical (NS) patients, four patients with chronic, treatment-refractory, depression (CTRD) that had not undergone surgery, and six healthy – matched controls were tested on The Awareness of Social Inference Test (TASIT – McDonald, Flanagan & Rollins, 2002), TASIT involves presenting the participants with a series of videotaped social interactions and asking them to either identify the emotion displayed by one of the protagonists (emotion evaluation), or to make inferences about the thoughts, feelings, intentions and beliefs of the different individuals involved in the interaction (social inference phase).

Results: Neurosurgical patients, but not patients with CTRD, were significantly impaired, relative to the healthy controls, in recognising the emotion displayed. Both NS patients and patients with CTRD were significantly impaired relative to controls when making inferences about the interactions involving sarcasm. Patients with refractory depression, but not NS patients, also exhibited deficits in interpreting sincere interactions and social exchanges involving lies.

Conclusions: There would appear to be selective deficits in emotion recognition and social processing depending on patient group. Possible explanations for these group – dependent differences in neuroimaging reference to previous literature, particularly concerning the role of the anterior cingulate as a conflict monitor.

Hypertensive hypoaesthesia
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Although the prevalence of hypertension in the UK has declined in the past 20 years, high blood pressure remains a serious medical condition. National surveys indicate that the prevalence of hypertension is 23 per cent. High blood pressure may increase the risk of the development of these leading causes of disability and death, many individuals with hypertension remain untreated, are inadequately treated, or untreated. Studies carried out over the past 20 years indicate that hypertension is associated with decreased pain perception (i.e. hypoaesthesia). Further, we have shown that pain perception may seem benign, or even beneficial, it has been argued that hypertensive hypoaesthesia can complicate accurate and early detection of heart disease. It is possible that an angina during episodes of myocardial ischemia. Based on emerging evidence that hypertension and hypoaesthesia share common pathophysiological mechanisms, the research presented was designed to enhance understanding of the mechanisms of decreased pain perception in hypertensive patients. Further, it was suggested that hypertensive hypoaesthesia results from enhanced activation of baroreceptors, endogenous opiates, and central pain modulation systems. Studies were conducted using the non-invasive flexion, reflex (NFR) paradigm to examine the effects of arterial and cardiopulmonary baroreceptor stimulation, opiate blockade using nalbuphine, and distraction/diversion on nociceptive transmission in healthy individuals and patients with hypertension. The results suggest that nociception is not affected by baroreceptor stimulation but was facilitated by arousal and distraction. Hypertensive hypoaesthesia is most likely to be mediated by baroreceptor mechanisms.

The effects of acute stress on cognitive performance in healthy young male volunteers

Background: The aim of this study was to investigate the effects of an acute stressor, Helicopter Underwater Evacuation Training (HUET), on cognitive performance and the mediating effects of social support on anxiety levels.

Method: 10 healthy male participants exposed to HUET and 10 age and gender-matched controls were assessed for immune function (S-IgA), working memory performance, anxiety level and level of social support. In addition, salivary cortisol levels were assessed. Participants were at least six months post-HUET and 10 age and gender-matched controls were assessed using the National Adult Reading Test. In addition questionnaires examining prospective memory, working memory performance, anxiety level and level of social support were administered. Participants were at least six months post-HUET and 10 age and gender-matched controls were assessed using the Cognitive Drug Research (iii) adjuvant hormone treatment alone were assessed using the Cognitive Drug Research.

Results: Women were at least six months post-chemotherapy at time of assessment.

Results: A series of repeated measures analyses were conducted on preliminary data from healthy participants (mean age 54.27) who had undergone chemotherapy with or without tamoxifen. Results showed that duration of chemotherapy has a small but significant impact upon performance on the Delayed Recognition Task (p = 0.043), age, marital status and level of emotional functioning were also significant predictors of Delayed Recognition Task. Time since treatment, tamoxifen, fatigue, anxiety, and pain did not predict cognitive performance. However, the overall model had a poor fit (Adj. R2 = 0.20, F(9,87) = 3.57, p < 0.001).

Conclusion: It is suggested that longer durations of chemotherapy may result in poorer performance in word recognition tasks. However, the impact on cognitive function of specific chemotherapeutic agents remains to be explored further.

Olfaction and male sexual orientation
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Background & Objectives: While there has been extensive research on how visual and auditory cues affect human social behaviour there has been little work on the effects of olfactory cues. Within recent years individual researchers have found that not only do humans have sensitive olfactory capabilities, but that odours can play a significant role in regulating social behaviour. Indeed there is emerging evidence that certain elements of human sexual behaviour are particularly influenced by olfactory cues (Jacobs et al., 2003; Jacobs et al., 2002; Sterin & McIntlock, 1998). This study examined the effects that male sexual orientation can have on this process.

Methods: Samples of human body odour were collected from self-designated homosexual and heterosexual males, and were presented to heterosexual female participants for evaluation. All sample collection and analysis was performed under strict methodological controls.

Results & Conclusion: Preliminary findings suggest that male sexual orientation significantly affects females' perceptions of human
Everyday memory and related processes in patients with anorexia nervosa and patients with bulimia nervosa

J.A. SEED, K. FOSTER, T.M. HEFERNAN, Division of Psychology, Northumbria University, S. DAHABRA & H. VENN, Regional Eating Disorder Service, Royal Victoria Infirmary, Newcastle-upon-Tyne. Objective: The present study was to investigate everyday memory and related processes in patients with anorexia nervosa and patients with bulimia nervosa and to identify factors relating to any impairments identified.

Design & Method: 12 patients with anorexia nervosa, 12 patients with bulimia nerva and 18 age, sex, and health matched controls took part in a case-control study. All participants were female. Cognitive functioning was measured using the Psychomotor Vigilance Task (PVT), the D2-possible Digit Span test, the Letter-Number Sequencing task, and the日 Executive Questionnaire (DEX), Eating disorder symptomatology was measured using the Eating Attitudes Test Short Form (EAT-26) and the Bulimic Investigatory Test, Edinburgh (BITE). Measures of attentional anxiety and depression were obtained using the Hospital Anxiety and Depression Scale (HADS).

Results: Scores on the eating disorder scales confirmed that the three groups were clinically distinct. Both patient groups were significantly more symptomatic than controls on the DEX measure and on the anxiety and depression measures. Significant correlations were found between body mass index and generalpsychological functioning. Analysis of covariance revealed that anxiety and depression had been contributed for, no between-group difference in DEX measurement remained. No between-group differences were identified on the PMQ measure.

Conclusion: Results indicate that day-to-day cognitive functioning is impaired in patients with both anorexia nervosa and bulimia nervosa. This impairment appears to be associated with attentional anxiety and depression with eating disorder severity. Both patient groups were significantly more symptomatic than controls on the DEX measure and on the anxiety and depression measures. Significant correlations were found between body mass index and general psychological functioning. Analysis of covariance revealed that anxiety and depression had been contributed for, no between-group difference in DEX measurement remained. No between-group differences were identified on the PMQ measure.

Effects of cognitive demand and word emotionality on memory and blood glucose

A.M. MILLER, D.O. KENNEDY & S. LAING, Human Cognitive Neuroscience Unit, Northumbria University.

Background: It is known that emotional material is better remembered than neutral material. Implicit measures of task-related emotional lability during this phenomenon may be linked to the liberation of glucose. Cognitive demand has the opposite effect, leading to a performance as a measurable falls in blood glucose levels. This study aimed to compare these phenomena directly.

Design: A 2 x 2, parallel groups design was used (N = 20/group), with the emotionality of material and the absence/presence of a secondary task as within-subject factors. Methods: 80 young adults were presented with either neutral or emotional word lists with or without a secondary task (prescribed alternating hand movements). Free recall and recognition tasks followed 15 min. later. Blood glucose levels and heart rates were also monitored.

Results: Processing of emotional material resulted in significantly raised blood glucose levels which were independent of heart rate changes. Co-performing the secondary task did not reduce this glycolytic effect, however, it did reduce recall scores. Unexpectedly, there was no main effect of word type on recall or recognition. This latter finding is not attributable to the generation and acceptance of more false positives in the emotional word conditions, suggesting that these led to a ‘false memory’ paradigm.

Conclusions: These data confirm that processing emotional material can produce measurable increases in blood glucose, supporting previous findings using implicit memory for pictorial stimuli. These data suggest that there are processes relating to sex, physiological and cognitive processes that modulate trace consolidation of emotional material.

Female salivary testosterone and bio-behavioural studies: The importance of multiple sampling

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Background: In males testosterone (T) has a characteristic diurnal rhythm; higher in the morning and lower in the evening. While taking this confound into account, studies investigating the relationship between androgens and competition have, nevertheless, tended to use a single measure to determine baseline, pre-, and post-competition levels. However, little is known about daily patterns of T or other androgens, or how they are affected by the formulation of effective research design. Consequently, this study sought to provide a more comprehensive pattern of female salivary T. Findings are discussed in relation to the use of single measurements in bio-behavioural studies.

Methods: 28 healthy females, none of whom were administering any form of hormonal medication, participated in this study. Following stimulation with sugar-coated chocolate bars, saliva samples were collected throughout the course of the day; one every two hours from 7am until 11pm. In addition, participants were asked to report events such as alcohol consumption, sexual activity, exercise, etc. T concentration was measured, following other extractions, by an indirect ELISA method.

Results: Although T concentration showed a circadian rhythm this was not significant. Repeated measures ANOVA with Greenhouse-Geisser, F(3,89), p = 0.458. Log mean concentration at 9am = 2.20 pg/ml and at 9pm = 2.10 pg/ml. Perhaps more importantly, throughout the course of the day T concentrations were highly variable with episodic fluctuation of individual data points exceeding 93 percent of 9am levels. The treatment period was far higher than any reported increases in baseline to pre/postcompetition determinations.

Conclusion: The authors suggest that not only may single T measurements be theoretically misguided for bio-behavioural studies but that taking account of diurnal variation only may be the wrong unit of analysis in the design of study protocols.

Development of tests of psychological performance using a digital pen

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Objective: To automate the administration of tests of psychological performance using a digital pen/paper system (Anoto®) has become an important method of assessing cognitive functioning in patients with anorexia nervosa and patients with bulimia nervosa and to identify factors relating to any impairments identified.

Design: Five-period crossover placebo (PL); clonidine 150 g (C1); clonidine 300 g (C2); temazepam 15 mg (T1); temazepam 30 mg (T2) in separate sessions at least four days apart. Methods: 15 healthy volunteers, seven male, eight female, aged 18 to 25 years (mean 21) and weighing 51 to 127 kg (mean 69) took part in a randomised single blind study in which each volunteer received one of the five treatments by mouth according to a Williams square design. Testing was again carried out at 45, 90, and 135 minutes post-administration.

Results: Analysis of Variance was used to test for overall treatment effect, followed by pair-wise comparisons. The sedative and impairing effects of both drugs were clearly demonstrated, particularly in the larger doses. In general the impairment to performance due to T2 were greater than those due to C2. Exceptions were the Arrow Flanker Task, where the effect of C2 was substantially greater than T2, and Selective Reading, where long presentation of words was very substantially impaired by T2 but where no significant effect of clonidine was observed. Conclusion: Clonidine and temazepam are both sedative, but clonidine causes a greater impairment of attention in the presence of distractors, whereas temazepam has a more pronounced effect on memory formation.

Levels of behavioural control: A dynamic interdependence

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A model is proposed in which behaviour is determined by a number of processes such as ‘on-line’ direct links between stimuli and responses and ‘off-line’ cognitions. It is suggested that, under natural conditions, the cognitions attached to these processes varies as a function of circumstances, reflecting adaptive considerations. Under unusual environmental conditions, an abnormal relative weight can become associated with one or more of the component processes, leading to abnormal behaviour. A model is proposed and it is argued that the relative weight of the factors determining behaviour will vary as a function of: (a) ontogeny and age. With development, the weight that can be attached to off-line considerations is far greater than that associated with the processing of ‘on-line’ information. Sensitivity can be associated with some loss of this capacity; (b) phylogeny. For example, primates have a particularly refined capacity to extract cognition and have thereby can exhibit the most autonomy from direct stimulus control; (c) learning. With repetition of a given task, control can shift from organization by off-line cognitive processes into a more automatic mode; (d) brain
damage. Given that certain brain structures can be identified as the embodiment of the processes underlying treatment behaviour, their damage can be associated with a shift of control. For example, the hippocampus and prefrontal cortex are specialised at the task of performing off-line computations. The extent to which such a brain region can affect one factor in behavioural control but spare another. For example, damage to the prefrontal cortex is sufficient to disrupt the ability to exhibit situation control; and (e) chemical factors. A disturbance to the brain’s chemical environment can disturb one process more than another. For example, evidence from animal studies shows that prefrontal cortical levels of catecholamines within a narrow range is a necessary condition for performance on certain types of tasks. One problem of performing a complex task is the difficulty of maintaining the model of the so-called ‘misbehaviour of organisms’ will be discussed. An impoverished developmental history can lead to a relative weakness in the ability to modulate the range of more direct triggers to behaviour. It is suggested that this is reflected in the increased tendency to stereotypes exhibited under these conditions.

The effect of dawn simulation on the cortisol response to awakening in healthy participants
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Background & Objectives: A stimulatory effect for post-awakening light exposure upon the awakening cortisol response (ACR) has been demonstrated. Light exposure of the experimental group is more than one hour delayed. Bright light therapy in the morning normalises the circadian cortisol cycle and alleviates depression. Advances in the treatment of SAD include dawn simulation: light that gradually increases in luminance before awakening. We examined if dawn simulation might have an influence over the ACR.

Design & Methods: 12 healthy participants were recruited from among the academic community at the University of Westminster and supplied with a dawn simulator. The Natural Alarm Clock (Outside In, Cambridge Ltd) is a bedside light that increases in intensity to approximately 250 lux over 30 min. when an audible alarm sounds. A counterbalanced study was performed on four consecutive normal weekdays, two of which were control days (no dawn simulation) and two of which were experimental (dawn simulation). The ACR was measured using a NeuroScan System (Scan 4.2 software). Subjective pain intensity and unpleasantness ratings were measured using visual analogue scales.

Results: Three main components of the evoked potential were identified; N1 peaking between 90 and 131 ms, P1 peaking between 166 and 219 ms and ACR peaking between 335 and 368 ms. Components peaked later in response to the two pulse train than the other waveforms. The amplitude of N1 was higher in response to the two pulse train than the other waveforms. Pain intensity ratings were positively related to the amplitudes of the P1 and P2 components but not to the N1 component. Pain unpleasantness ratings were not related to the amplitude of any SEP components. Pain intensity ratings were related to the amplitudes of N1 and P2 components but not to the P1 component. There were no differences in pain unpleasantness ratings across waveforms.

Conclusions: The findings have implications for the consideration of waveform characteristics in the design of experiments investigating SEPs in response to electrical stimuli.

Evidence for impaired information processing efficiency among MDMA users

Background: Inflated error rates among MDMA users. It is possible that impulsivity might give rise to impairments in the speed and accuracy of information processing. Indeed, this could be the mechanism underpinning those MDMA related deficits that have been documented on a diverse range of tasks.

Methods: 39 MDMA users (mean age 29.2 years and 29 current) and 46 non-users were tested on letter and pattern comparison speed tasks. Participants had to judge whether two stimuli presented on the computer screen were the same or different. Stimuli varied in type (letters versus patterns) and in terms of complexity. Participants classified as many pairs as they could within a fixed time period. Results: Multivariate analysis revealed that MDMA users were as fast as nonusers but made significantly more errors. Subsequent analyses revealed that this deficit was confined to the letter stimuli and was unrelated to stimulus complexity. MDMA users were also found to be impaired on a measure of verbal working memory performance. ANCOVA with statistical control for group differences in processing speed errors did not substantially attenuate the MDMA related deficit in verbal working memory.

Conclusion: The results confirm that MDMA users do make more errors on the processing speed task. However, this appears to be unrelated to MDMA related deficits in verbal working memory. It appears therefore that different causal mechanisms underpin these two types of deficit.

The effects of emotional disclosure on psychosocial and physiological outcomes in patients with varying severity rheumatoid arthritis

Background: Emotional disclosure refers to the process of writing or talking about stressful or traumatic events. This procedure has been previously associated with a variety of outcomes in healthy participants, and also reductions in disease activity in rheumatoid arthritis (RA) patients. The current study reports the findings of a pilot study assessing the effects of emotional disclosure on a variety of psychosocial and physiological outcomes in rheumatoid arthritis patients with varying disease severity.

Methods: 46 RA patients were recruited and assessed at baseline, one, six and 10 weeks post-intervention. At each session clinical and psychosocial data were collected including, disease activity, CRP and ESR (markers for inflammation) and measures of emotional well-being. Patients were randomly assigned to either the disclosure group or an episodic recall control group. The intervention comprised an established disclosure paradigm adapted specifically for RA patients. In the disclosure group, patients were asked to write or talk into a recorder for a 20-minute period on four consecutive days.

Results: Control patients demonstrated a gradual increase in disease activity and negative mood during the 10-week follow-up period. However, whilst disclosure patients demonstrated increases in inflammation and negative mood at one and six weeks post-intervention, at 10 weeks, reductions in inflammation and improvements in mood were observed.

Conclusions: The results of this study provide further support that disclosure can improve psychosocial and physiological outcomes in patients with rheumatoid arthritis. The study also highlighted important methodological considerations which will be discussed in relation to the future use of the paradigm.

The British Psychological Society
2004 Proceedings
73
The Defined Intensity Stressor Simulation (DISS): The effects of increasing intensity on S-IgA reactivity and perceptions of workload, stress and arousal

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Background: A variety of laboratory-based acute stressors have reliably induced increases in S-IgA secretion. Previous work assessing acute multi-tasking stress suggests that S-IgA reactivity is inversely related to the perceived demands of the stressor. The DISS comprises eight stressor modules, and allows for the manipulation of stress either through increasing the number of modules, or increasing the difficulty of the modules. The current study assessed the effects of increasing the difficulty of four stressor modules (visual and auditory monitoring, a maths task and an attention/reaction time task) upon S-IgA reactivity and perceptions of the stressor.

Methods: Participants (N = 14) attended three sessions on consecutive days. At each session they provided a timed saliva sample immediately before and after five minutes on the stressor battery at either low, medium or high stress intensity. Immediately following each session participants recorded, using questionnaires, their perceptions of the stressor with regard to workload and levels of stress and arousal.

Results: Different patterns of S-IgA reactivity were observed at varying levels of stress intensity. Low intensity stress resulted in a slight increase in S-IgA secretion, medium intensity stress elicited a significant increase, while down-regulation of S-IgA occurred following high stress intensity. Increased stressor intensity was related to significant increases in several facets of perceived workload and increases in perceptions of stress, but not arousal.

Conclusions: Although the small sample size should be borne in mind when interpreting the data, the results demonstrate reduced HPA reactivity following the CO2 challenge over a six-month period, whilst cardiovascular and psychosomatic reactivity remain stable. The reduced reactivity may reflect habituation of the HPA axis to the challenge and, therefore, suggest that HPA, cardiovascular and psychosomatic responses are independently regulated. However, it should also be noted that at six-month follow-up, the CO2 inhalation was lower than that of the practice breath. Whilst a small reduction in inhalation would not effect cardiovascular and psychosomatic responses, it has been suggested that HPA axis activation, in this paradigm, requires a CO2 breath of at least 80 per cent of vital capacity.

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