



The British
Psychological Society
Northern Ireland Branch

2017 Annual Conference

Thursday 23rd March

UNDERGRADUATE SESSION



11.00	<p>Improving Pitch Perception: Reopening Critical-Period-like Learning Through Auditory and Visual Disinhibition Tasks in Adult Musicians.</p> <p>Mairead Healy, NUI Maynooth</p> <p>Background: Absolute pitch (AP), also known as perfect pitch, is the auditory ability to identify pitch class in the absence of an external reference tone. The ability is extremely rare, occurring in an estimated 0.01% of the general population. Many studies have found an association between AP possession and early musical training, leading to the critical period hypothesis. This research aims to determine whether pitch perception can be improved by reopening critical-period-like learning in adult musicians.</p> <p>Method: Twenty-three people without AP participated in a four-week training programme consisting of two disinhibition tasks: an auditory-visual Stroop task and an auditory 2-back task. A classic AP pitch-naming task was used as both an inclusion criterion, to ensure participants did not already possess AP, and as a benchmarking assessment, to measure any transfer effects of training.</p> <p>Results: Training was found to improve pitch perception compared with a non-active group. There was a substantial main effect for time, Wilks' Lambda = .26 $F(1,21) = 5.54, p < .03, \eta^2 = .21$) The between groups test indicates that the main effect of group was not significant $F(1,21) = 1.25, p = .28, \eta^2 = .06$. However, there was a statistically significant interaction between time and group. Wilks' Lambda = .79 $F(1,21) = 29.21, p < .0005, \eta^2 = .582$.</p> <p>Discussion: Understanding of the neural basis of critical or sensitive periods of brain development could enlighten strategies for improved learning into adulthood. Continued studies on AP could potentially enrich our understanding of inducing neuroplasticity in the human brain. It also provides a unique model for understanding the interactions between genetic factors and experience; especially during a sensitive period. Further research is required to enhance our understanding of inducing neuroplasticity in the human brain.</p>
11.15	<p>Validating an Objective Test of Personality</p> <p>Aoife Malone, NUI Maynooth</p> <p>Background: Personality assessments are often used in an effort to define an individual's characteristics in quantitative terms, with Objective Personality Tests (OPT) employed to reduce the bias of standard self-report questionnaires. This study purported to clarify the value of OPTs in psychological testing, by validating an OPT (Cattell's Balloon Test), against a widely used and psychometrically robust personality questionnaire (Eysenck Personality Questionnaire Revised Short-A) (EPQR Short-A). Cattell's Balloon Test proposes individuals with higher levels of neuroticism will inflate a balloon to a lesser extent than individuals with lower levels of neuroticism, reflected by a negative correlation between the variables. Furthermore, the effects of age and gender were also investigated.</p> <p>Methods: Participants (n=52, 18-65) were required to fill out the EPQR Short A (self-report measure) before inflating a balloon (objective measure).</p> <p>Findings: Analyses on the relationship between balloon circumference and neuroticism found no statistically significant correlation ($\rho = -.126, p = .373$).</p>

	<p>Further statistical analyses revealed no significant effects for either age, $F(2,46)=1.007$, $p = .373$, or gender, $F(1,46) = .156$, $p = .695$, in relation to balloon circumference or neuroticism.</p> <p>Discussion: These findings indicate that Cattell's Balloon Test fails to demonstrate adequate construct or concurrent validity to be considered a valid test of personality at this current time. Importantly, this piece of research supplements the growing body of literature which argues OPTs may not be an effective measure of personality. Possible explanations for these results along with suggestions for future research are also discussed.</p>
11.30	<p>Factorial validity of the Maslach Burnout Inventory in UK social workers.</p> <p>Ann Doherty¹, Dr John Mallett¹, Dr Paula McFadden² ¹Ulster University Magee, ²Queens University Belfast</p> <p>Background: This study aimed to examine burnout in UK social workers. Burnout has been conceptualised as involving three facets: emotional exhaustion, depersonalisation and reduced personal accomplishment, and is frequently measured using the 22-item Maslach Burnout Inventory Human Services Survey (MBI-HSS). Recent research suggests that UK social workers exhibit high levels of emotional exhaustion. However, variance in the factor structure of the MBI-HSS across occupational groups highlights the importance of understanding the latent structure of burnout.</p> <p>Method: The study re-examined data from a recent cross-sectional survey of UK social workers ($N = 1257$). Nine alternative factor models were compared using confirmatory factor analysis.</p> <p>Findings: A reduced scale, previously identified in American social workers, provided a reasonable fit to the data. Model respecification improved model fit, $\chi^2(127, N = 1257) = 496.80$, $p < 0.001$, CFI = 0.96, RMSEA = 0.048, 90% CI [0.044, 0.053]. The analysis confirmed the three-dimensional structure of the MBI-HSS, using an 18-item scale.</p> <p>Discussion: The results confirm the importance of reviewing the factor structure of the MBI-HSS. The underlying factor structure remains three-dimensional despite item deletion. Alternative models, with fewer items or increased numbers of latent dimensions, do not produce better results in the present sample. The present study is unique as it is the first to examine the factorial validity of the MBI-HSS in UK social workers.</p>
11.45	<p>An investigation into the effects of level of education and years of experience on the perceived self-efficacy of early years educators in Ireland to implement inclusive practices.</p> <p>Lara Synnott, Dr. Christine Linehan, UCD</p> <p>Background: The aim of the study was to investigate whether level of education and number of years of experience have an interaction effect on the level of perceived self-efficacy to implement inclusive practices (PSEIP) reported by early years educators in Ireland. The study also investigated the lower order effects of level of education and years of experience on levels of PSEIP of early years</p>

	<p>educators.</p> <p>Method: A quantitative independent-groups design with a purposeful sample of 209 early years educators currently working in early childhood care and education (ECCE) settings in Ireland completing an online self-report survey was used. Participants provided background information and completed the Teacher Efficacy for Inclusive Practices (TEIP) scale. A 2x2 non-repeated ANOVA was used for data analysis.</p> <p>Findings: A 2-way non-repeated ANOVA found no significant interaction effect for level of education and number of years of experience in terms of levels of PSEIP, $F(1,205)=.014, p>0.05$. However, significant lower order effects for level of education, $F(1,205)=7.65, p<0.01$, and number of years' experience, $F(1,205)=20.30, p<0.01$, were found. Higher levels of PSEIP were found among early years educators with more than 5 years' experience and those with higher education qualifications.</p> <p>Discussion: This study provides an insight into the perceived self-efficacy of early years educators in Ireland, a population not often discussed in the literature of the discipline. It also provides further evidence of the reliability of the TEIP scale cross-culturally. Implications for early childhood care and education teacher training and professional development in Ireland are also discussed.</p>
12.00-14.00	<p>A-Level Psych/Keynote/Lunch – see main conference programme</p>
14.10	<p>Autistic trait variation in the general population before and after age 3: A quasi latent transition analysis of UK parent data</p> <p>Amanda Spikol (Dr. Jamie Murphy, co-author), Ulster University</p> <p>Background: Early application of Autism Spectrum Disorder criteria and disregarding variance in ASD expression is problematic. It was hypothesized a general population sample would contain 3 distinct and meaningful profiles of autistic trait variance before and after age 3; a high-endorsement, a low-baseline, and a moderate-functioning class, empirically validated by known comorbidities and gender ratios.</p> <p>Method: Data was sourced from the Mental Health of Children and Young People in Great Britain, 2004 census (N=7847). Latent class analyses (LCA) were used to analyse responses to 5 questions on autistic behaviour before age 3 and responses to 10 questions on behaviour after age of 3. A latent transitional analysis was conducted between those time points and comorbid condition data was loaded into a multinomial logistical regression model as a validator.</p> <p>Findings: LCA revealed a 3-class solution of high, moderate, and low endorsement before age 3, and a 3-class solution of Atypical, Classical, and Low Variance expression after age 3. LTA showed 12 sub-classes of meaningful transition between groups and a Dropout category, showing a shift in expression of the latent factor, autism, after age 3. A MLR model showed significant odds ratios for known comorbidities in the 3 classes compared to a population baseline.</p> <p>Discussion: Class membership before/after age 3 and transition between (including dropout) speaks to the variance of ASD expression and that early diagnosis may be unreliable. Additional research in large population samples is recommended for replicability and to support greater nuance and attention in</p>

	diagnosis.
14.25	<p>Communication Skills Training for Palliative Care Health Professionals: Assessing the Long-Term Impact</p> <p>Christine Mulligan, NUI Maynooth</p> <p>Background: Effective communication skills are essential for healthcare professionals (HCPs) and have been shown to improve health outcomes for people living with a life-limiting illness. The Wilkinson advanced communication skills training (ACST) programme is the national course for senior HCPs in Northern Ireland (NI).</p> <p>Aims: This project set out to investigate: (1) the longer-term perceived effectiveness of the ACST course (2) the effects of mandatory versus voluntary training on learning outcomes; and (3) the consequences of reducing the course duration from three to two days.</p> <p>Methods: A mixed methods design was used incorporating an online survey of previous course participants in NI (N=480) and one-to-one interviews with key stakeholders (N=2).</p> <p>Results: Overall, 92% (123/134) of respondents reported that elements of the training had 'strongly/moderately' benefited their current clinical practice with 62% (84/136) providing favourable anecdotal evidence. Of the responding sample, 28% (40/141) mandated to attend the training provided exemplars to indicate the positive impact on learning outcomes. There appears to be no clear disadvantage to a shorter course duration on measurable outcomes.</p> <p>Discussion: HCPs reported high levels of satisfaction with the ACST programme and a long-term positive impact on current clinical practice up to eight years post intervention. These results, albeit not based on objective pre-post assessments, support the notion that such training should be mandatory for all HCPs working in the field of end-of-life care.</p>
14.40	<p>An Assessment of Social Connectedness and its Relationship with Psychological Distress: a Research Plan.</p> <p>Laura Kenny, Mark Shevlin, Ulster University, Magee Campus</p> <p>Background: To date, a great deal of literature exists to support the notion that those who perceive themselves as socially isolated or marginalised are at greater risk of mental health issues and premature mortality. What still remains elusive however, is whether some aspects of social connectedness (e.g., loneliness, alienation) are more problematic than others, and for whom (Valtota et al., 2016). Unfortunately, in the vast majority of studies, researchers have examined only one measurement approach, precluding direct comparisons. Among the few studies in which researchers have contrasted social constructs, results remain inconclusive. The aim of this study is to investigate a range of measures that broadly reflect social connectedness in an attempt to analyse their unique association with psychological distress. Thus, this study will attempt to gain insight regarding the conceptual distinction and relative influence of such constructs on psychological distress in the hopes of guiding future intervention efforts.</p>

	<p>Method: Nine self-report questionnaires of social connectedness, along with a measure of depression/anxiety, will be administered to an opportunity sample of university students (N=200). For the main analyses, factor analysis will be used to identify any higher order variables representing different type of social connectedness. This will be followed by using multiple regression to investigate how much each 'type' of social connectedness uniquely predicts psychological distress.</p> <p>Discussion: Social connectedness is a broad multi-dimensional construct. This study aims to identify if there are different meaningful types of social connectedness and determine if, and to what degree, these are related to psychological distress</p>
14.55	<p>Testing the multi-dimensional nature of political beliefs and their relationship with paranoia, deservedness, conspiracy and religiosity.</p> <p>Emma Nolan, Ulster Univeristy; Professor Mark Shevlin, Professor Richard Bentall, Azzam Alsuhibani.</p> <p>Background: Previous research on political ideology is generally based on the assumption that political beliefs can be described in terms of a bipolar uni-dimensional mode representing Left-Right beliefs. However, recent research has suggested that political ideations are multifactorial and not bipolar in structure. This research project aimed to test the multi-dimensional nature of political beliefs and their relationship with paranoia, deservedness, conspiracy and religiosity.</p> <p>Method: An opportunity sample of students (N=496, Male = 31.9%, Mean age=27.03, SD=12.76) was recruited by email and lecturers. Participants were invited to complete a series of questionnaires including measures of political beliefs, paranoia (Paranoia and Deservedness Scale), belief in conspiracy and strength of religious beliefs.</p> <p>Findings: An exploratory factor analysis based on the political beliefs items indicated that a model with four factors was acceptable in terms of model fit: Personal Liberalism, Social Liberalism, Conservatism and Philanthropy. Regression coefficients demonstrate specific and independent relationships between the four factors of political ideation and the outcome variables of paranoia, deservedness, conspiracy and religiosity. The strongest associations were between Personal Liberalism and Religiosity (B= -.711) and Philanthropy and Paranoia (B= -.632).</p> <p>Discussion: The study showed that political beliefs are not bi-polar in structure, the different effects of these underlying dimensions on the outcome variables suggest that there is specificity with political beliefs. It presents the idea that there is a disjointed non-bipolar structure associated to political ideation, suggesting that liberal identity is multifaceted in dimension and conservatism reacts differently to these dimensions. The results argue political beliefs should be considered and studied independently rather than as a single continuum.</p>

15.10	<p>Self-Esteem, Self-Concept and Body Image in Adolescents with and without Type 1 Diabetes Mellitus</p> <p>Niamh Doody, NUI Maynooth</p> <p>Background: This study examined the body image, self-esteem and self-concept of adolescents with type 1 diabetes mellitus (T1DM). These results were compared to a comparison group of adolescents without a life-long medical condition. The secondary aim was to examine the influence of these psychological factors, length of diagnosis, insulin regime, age, gender, and perceived control on glycaemic control.</p> <p>Methods: A total of 192 individuals participated in this study (51.6% = females, 48.4% males). The sample consisted of two groups; the diabetes group (41 males and 40 female participants), and the comparison group (52 male and 59 female participants).</p> <p>Findings: There were no statistically significant differences between the self-concept, self-esteem and body image scores between the diabetes and comparison group. However, consistent with the literature, males scores were significantly higher on each of these concepts than the female participants. Of eight control measures employed in a stepwise regression, only two were statistically significant. These were the self-reported measures of diabetes control ($beta = .44, p < .001$) and the insulin regime the individual uses ($beta = -.27, p < .001$).</p> <p>Discussion: Given that adolescents with T1DM are at risk of developing psychological problems, these findings show that adolescents with T1DM have a very positive view of themselves compared to their peers who do not have a life-long medical condition.</p>
15.25	<p>“A study examining Complementary and alternative medicine (CAM) use and its relationship with Attitudes towards CAM, Holistic Health and Locus of Control of Behaviour, in Adults with Chronic Fatigue Syndrome (CFS) and/or Myalgic Encephalomyelitis (ME) in Ireland.”</p> <p>Sinead Kavanagh, NUI Maynooth</p> <p>Background: Research on Complementary and Alternative Medicine (CAM) use in worldwide populations whilst becoming more frequent, remains linked to more readily recognised diagnoses, such as cancers, musculoskeletal disorders, or arthritis.</p> <p>Aims: The primary objective of this study was to ascertain whether adults in Ireland with ME/CFS, utilise CAM treatments. This provided the backdrop for the investigation of relationships between CAM use and variables which may predict belief of the importance of participation in CAM use, attitude of a population towards CAM and holistic health in general and locus of control of behaviour.</p> <p>Method: Using empirically validated instruments of measure, a sample of 62 participants within the specific population, were surveyed. Analysis using independent t-tests, correlation and regression models were utilised.</p> <p>Results: T-tests found no significant differences between users and non-users on</p>

	<p>attitudes towards CAM and attitudes towards holistic health. Multiple regression analyses with CAM use/non-use, belief of the importance of participation in CAM, locus of control, and attitude towards CAM/holistic health as predictors accounted for 22.5% of the variance in attitudes towards CAM and 31.8% of the variance in attitudes towards holistic health. Attitudes towards holistic health was identified as a significant predictor of attitudes towards CAM and attitudes towards CAM was a significant predictor of attitudes towards holistic health. Correlations employed showed a moderately significant association across three of the four measures.</p> <p>Conclusion: The psychological variables investigated through this body of research whilst possessing some influence over CAM use in the sample, would appear not to be adequate predictors in relation to use or non-use of CAM. Rather they would appear on a par with the effects of variables of a more practical nature.</p>
15.40	Undergraduate Prize-Giving

Poster Abstracts

Poster will be viewed along with the poster session at 12.30pm on 23rd March.

Balancing The Spectrum: Multi-sensory Integration and Postural Control in Young Adults with Autism Spectrum Disorders

Cara O'Brien, Queen's University Belfast

Postural control deficits in individuals with Autistic Spectrum Disorders (ASD) are well established. The mechanisms through which these deficits operate have not however, been systematically addressed. The ability to maintain balance predominantly relies on a process of sensory integration, which collates and synthesises information from the three sensory channels of vision, proprioception and vestibular information. The individual acuity of each channel has been demonstrated as comparable between those with ASD relative to those of typical development. Conversely, ASD-related postural instability emerges when integration of the channels is required e.g. under conditions of perturbations to one or more of the sensory channels. The present study aims to assess the dissociation between proprioceptive acuity and sensory integration abilities in those with ASD to further test the multisensory integration deficit account of postural control difficulties. Fifteen young adults with high-functioning ASD and a control group matched for age and gender completed an ankle joint position matching task, assessing proprioceptive acuity. A postural control task was then undertaken, on a platform surface, in the absence of vision. The trial was composed of three phases: (i) Baseline - platform was stable for 2 minutes; (ii) Adaptation - during which the platform induced inaccurate proprioceptive information regarding body sway for 3 minutes; (iii) Reintegration - platform stability was returned for 3 minutes. The results indicated no difference in proprioceptive acuity between those with ASD and the control group. Regarding postural control, those with ASD demonstrated greater sway path length and failed to sufficiently integrate sensory information during the condition of inaccurate proprioceptive information. These results suggest that postural control deficits in ASD are due to central sensory integration deficits rather than problems with peripheral sensory noise.