

### 1459 THE EFFECT OF BELOW EXPOSURE NOISE THRESHOLD LIMIT VALUE TO ACUTE STRESS

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**Introduction** This study aims to examine the possibility of the effect of noise with intensity below the threshold value to stress.

**Method** The study is a quasi-experimental involved 108 subjects divided into 6 noise exposure groups of control, 0 dBA, 70 dBA, 75 dBA, 80 dBA and 85 dBA in 15 min exposure. Research subjects consisted of healthy males, aged 18–39 years and met the study criteria. Assessment of stress include physical stress index (PSI), the total power (TP) and low frequency/high frequency ratio (the ratio of LF/HF) measured using the test heart rate variability (HRV), adrenaline and cortisol blood levels measured before and after treatment.

**Result** Research subjects who qualify as many as 102 people a year aged 23.99±4.77 years. Research subjects have equal characteristics between treatment groups according to the socio-demography.

There is no different of PSI value, the ratio of TP and LF/HF, Adrenaline between exposure groups. Cortisol levels were positively correlated with higher levels of adrenaline ( $r=0.35$ ,  $p<0.01$ ) while adrenaline levels and cortisol levels were strongly positively correlated ( $r=0.53$ ,  $p<0.01$ ). PSI values weakly positively correlated with cortisol levels ( $r=0.2$ ,  $p<0.05$ ) and the ratio LF/HF were positively correlated weakly with cortisol ( $r=0.2$ ,  $p<0.05$ ).

**Discussion** Effect of noise on the stress intensity visible starting at Laeq, 65 dBA and Laeq 8 hour, 8 hour 70 dBA. Correlation parameter values autonomic balance system with adrenaline and cortisol levels demonstrate the potential use of HRV as a psychophysiological assessment instruments due to noise disturbance.

### 1490 RE-EMPLOYMENT NEEDS AND BARRIERS OF INDIVIDUALS IN A RESIDENTIAL REHABILITATION PROGRAM

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**Introduction** Adverse effects on individual well-being as a result of unemployment are well-documented. Individuals in transitional housing programs often have a goal of reaching stable employment, but the unique needs and barriers for achieving re-employment among this diverse population (includes individuals that may be homeless, formerly incarcerated, or impacted by other stressful life circumstances) warrants further study to enhance programmatic and service recommendations.

**Methods** A structured interview guide was developed and modelled after existing validated surveys. To evaluate the ability of the instrument to optimally measure the constructs of interest, cognitive interviewing was conducted to identify problems in comprehension, retrieval, judgement and response to survey questions so that the survey can be modified prior to full deployment. The survey was administered orally by

one interviewer and audio recorded. Descriptive data analysis was done for this exploratory semi-qualitative study.

**Result** Fifteen cognitive interviews were completed resulting in changes in content, wording, study inclusion criteria, and development of response categories. Over thirty interviews were conducted using the final guide. Results suggest that work histories of participants are more extensive with longer periods of employment than may be expected. Many respondents indicated that future employment goals include owning their own business and may represent an area of additional needed training for those currently unemployed. However, most aspirations for future employment were congruent with past achievements, including ownership.

**Discussion** It is important to assess the needs and barriers of those seeking employment services to ensure programs deliver essential services. Ownership may help bypass some of the challenges faced with finding and maintaining employment due to criminal records or other barriers. This interview guide will be used in other populations seeking varied employment services from community organisations to further study needs and barriers for regaining employment.

### 1491 UNEMPLOYMENT FOR LEARNING-DISABLED ADULTS AND FAMILY CARERS – BARRIERS AND CHALLENGES TO WORK: FINDINGS FROM A UK PUBLIC CONSULTATION

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**Introduction** Disabled people (approximately 1 billion among 7.4 billion world population) and their Family-Carers suffer from massive labour market disadvantage. Global economic crisis and austerity has had serious implication on their health and well-being by increasing mortality, morbidity, poverty and poor access to health/social care. Over 50% of 1.5 million Learning-Disabled people in the UK lived in family-house depending on informal unpaid care from 0.84 million Family-Carers resulting in significant financial burden for their family (2011). Despite Government initiatives employment rate among Learning-Disabled adults has fallen (6.1% in 2009/10% to 5.8% in 2015/16). 33% of Family-Carers were also unemployed compounding their misery.

**Methods** A public consultation within a local authority set out to review the current employment status and perception towards work among Learning-Disabled adults and their Family -Carers. Qualitative and quantitative data was gathered and analysed thematically and statistically respectively.

**Results** Among 227 participating Learning-Disabled adults, 98% (217/227) were in the working-age group (18–65 years) but only 8% (18/227) in paid employment. Among responding Family-Carers (77%; 59/77 in the working age), 55% were unemployed. Both the Learning-disabled adults (74%; 167/227) and Family-Carers (50%; 35/70) were unenthusiastic about their employment prospect. Negative societal attitude; bullying, harassment and crime; lack of access, resources, transport, training facility and targeted job opportunity were identified as primary barrier for work by the Learning-Disabled group. Caring responsibilities, increasingly scarce resources and Lack of social and management support were identified by the Family-Carers. The respondents called for a