Risk factors for physical inactivity across the adult life span: the impact of depression

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Aim: To determine the relative importance of sociodemographic characteristics, physical health and psychosocial functioning as correlates with physical inactivity across adulthood.
Methods: Data were collected from a population-based study of 7485 participants in three cohorts aged 20–24, 40–44 and 60–64 years. The prevalence of physical inactivity was determined for each age group. Data were gathered on potential risk factors for physical inactivity from sociodemographic, health and psychosocial functioning domains, with the aim of determining whether psychosocial functioning, especially depression, was an important correlate of physical inactivity after accounting for sociodemographic and health variables.
Results: The rates of physical inactivity increased with age, with 42.5% of younger and 53.8% of older adults classified as physically inactive. The importance of various correlates of physical inactivity differed across adulthood, with chronic physical conditions such as diabetes [odds ratio (OR) = 1.52, $P < 0.05$) and health behaviours such as current smoking (OR = 1.75, $P < 0.001$) being the strongest correlates for older adults. For younger and middle-aged adults, sociodemographic variables such as being unemployed ($P < 0.05$) and fewer years of education ($P < 0.001$) were correlates of physical inactivity. In terms of psychosocial functioning, depression ($P < 0.01$) remained a significant correlate of inactivity across all age groups, even after accounting for sociodemographic and health variables.
Conclusion: Depression is an important correlate of physical inactivity across the adult life span even after considering sociodemographic factors, health and lifestyle behaviours, and physical health.

Factors influencing the decision to learn 5-HTT genotype results and subsequent impact on the individual

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Background: We reported an association between the 5-HTT gene and onset of MDD following exposure to adverse life events in a longitudinal cohort of postgraduate teacher trainees (Wilhelm et al. 2006). Many cohort members expressed interest in learning of their genotype results. With permission from the UNSW HREC, cohort members were given the opportunity to learn of their results and we investigated the reasons members did or did not want to know their results and how they received the knowledge.
Method: The 128 members who had genetic testing were sent measures prior to receiving their results covering: attitudes, perceived benefits and limitations to genetic testing; causal attributions to and perceived risk of depression onset; information needs and positive and negative affect. Follow up questionnaires were conducted at 2-week and 3-month follow up.
Results and Conclusions: Of the 116 responding members, 82 (71%) indicated that they wanted their results, 22 (19%) declined but agreed to complete the follow up questionnaires and 12 did not wish to participate. More members expected to have the s/s genotype than was the case. There were no differences in rates of lifetime MDD diagnosis, but receivers had a later onset, fewer episodes, higher mean neuroticism scores and there was a trend towards more family MD history. All were glad to have received their genetic results and the perceived risk to depression fell across all genotype groups, with the greatest reduction for those with the s/s genotype. Implications for research and the general community will be discussed.

Understanding altered neural synchrony in first-episode schizophrenia

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Background: First-episode schizophrenia (FES) is characterized by psychotic symptoms as well as profound difficulties in cognition and emotion. Our integrative neuroscience model of FES highlights the lack of coordinated neural synchrony underlying these features. The objective was to identify the cognitive, affective and neural synchrony markers that best differentiate FES from healthy controls, and the combination of markers that predict functional outcome.
Methods: We tested 56 FES (within 3 months of service contact) and 112 matched healthy controls as part of the Brain Resource International Database. Testing

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included a detailed medical history, psychometric testing, a battery of cognitive tests and EEG recordings in response to cognitive and emotion-related tasks. A new measure of neural synchrony was used to quantify phase synchrony within EEG bands, focusing on gamma.
Results: FES was defined by marked impairments in social functioning and perceived quality of life, related to severity of negative symptoms. This clinical profile was associated with similarly marked deficits on cognitive measures of executive function, working memory and emotion perception. In terms of neural synchrony, a pattern of 'hypersynchrony' compared with healthy controls was apparent in response to processing of salient information.
Conclusions: These findings provide support for a model of FES that focuses on alterations in synchronization of brain function required for effective binding of complex and significant stimuli. Because poor emotional function and negative symptoms in FES are valid predictors of 'real-world' functional outcome, neural synchrony markers show promise as an objective marker of illness progression.

Happy trails to you – a review of subjective well-being in successful aging

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Background: Many studies have examined depression in aging with the assumption that this also provides information concerning the nature of happiness. There is consequently a paucity of research on happiness, in particular its determinants and relationship with successful aging. The aim of this research was to review studies concerning happiness in aging.
Methods: MEDLINE, PsychINFO, CINAHL and EBM reviews were searched from their inception to June 2006, using the terms happiness, optimism, positive affect, subjective well-being, well-being and life satisfaction.
Results: The main findings can be summarized as follows: most studies support an increase in happiness with age although some longitudinal research has shown decreases over the life span. Correlates of happiness and subjective well-being in aging include marital status, religious commitment, subjective ratings of health status, social capital, task- or avoidance-oriented coping, cognitive function and housing quality. Positive affect appears as much of a protective factor as negative affect is a risk factor for functional disability in aging, especially following illness or injury. Finally, early results suggest that positive psychology interventions such as the 'good-things-in-life' exercise may be efficacious in increasing and maintaining levels of happiness.
Conclusion: Happiness is an important contributor to successful aging and further intervention studies should be pursued to improve the health of older persons.

Behavioural problems following stroke – is there a relationship with cognitive impairment?

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Background: This study aimed to show the contribution of cognitive impairment toward the development of behavioural disturbance following stroke.
Method: Subjects in the Sydney Stroke Study comprised patients admitted to two university hospitals after an ischemic stroke and controls from the community who received extensive medical, psychiatric and neuropsychological assessments, with a subset receiving a magnetic resonance imaging scan. Patients were assessed 3–6 months after their stroke and again a year later. Controls were similarly assessed twice, 12 months apart. This sample comprised 123 stroke patients and 88 control subjects, with complete ratings on cognitive impairment at 15 months.
Results: Of the 88 controls, 55.7% were classified as having no cognitive impairment, 30.7% had mild cognitive impairment and 2.3% had dementia at 15 months. Of the 123 patients, 42.3% had no cognitive impairment, 39.8% had VCI and 16.3% had dementia. The stroke group had significantly higher rates of dementia [odds ratio (OR): 8.35, 95% confidence interval (CI): 1.90–36.73] but not of cognitive impairment (OR: 1.71, 95% CI: 0.93–3.15). Using nonparametric correlation, total NPI score was correlated with cognitive impairment in the total sample (Spearman's $\rho = 0.27$, $P = 0.001$). Within the stroke group, dementia was significantly associated with NPI score at 15 months but not MMSE, stroke severity, IADL/ADL score, more than one stroke, total stroke volume, total atrophy or total white matter hyperintensities.
Conclusion: Having a stroke does not necessarily lead to behavioural disturbance; however, it is associated with higher rates of cognitive impairment (in particular dementia), which in turn is associated with more disturbance.

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