Psychotherapy and mental health

THE SOUTHAMPTON SICKNESS BEHAVIOUR SCALE: VALIDITY, INTERNAL CONSISTENCY AND RELIABILITY IN ALZHEIMER'S DISEASE AND LEWY BODY DEMENTIA

J. W. Butchart, L. J. Wolfe, C. Holmes
Memory Assessment & Research Centre, Clinical Neurosciences, Faculty of Medicine, University of Southampton, UK

Introduction: In animal models of neuro-degenerative disease, neuroinflammation is associated with cytokine-related sickness behaviours, such as apathy, somnolence and malaise. In this study we aimed to develop and validate a scale to measure cytokine-related sickness behaviour in humans with dementia.

Methods: Eighty-five participants with a diagnosis of Alzheimer’s disease (n = 64) or Lewy Body dementia (n = 21) were recruited through the memory service in Hampshire, UK. 26 putative sickness behaviours were rated on a four-point scale by a reliable informant. In phase 1, psychometric analysis, using a discrimination index and categorical principal components analysis, identified items that did not contribute significantly to the total scale variance. In phase 2, the retained items formed a scale that was compared with serum cytokine levels to assess biological construct validity. Serum samples were total scale variance. In phase 2, the retained items formed a scale that was compared with serum cytokine levels to assess biological construct validity. Serum samples were obtained at the time of scale administration for multiple cytokine immunosassays.

Results: In phase 1, 16 items had a discrimination index <0.2, or an eigenvalue <0.5. These items were discarded.

Phase 2: Construct validity for the remaining 10-item scale was demonstrated by significant correlations between the total scale score and levels of serum IFN-γ (Spearman’s r = 0.25, p = 0.019) and IL-4 (Spearman’s r = 0.33, p = 0.002). Categorical principal components analysis revealed two groupings of the 10 scale items consistent with the theoretical construct of sickness behaviour, providing further support for the construct validity of the scale. The 10-item scale had high internal consistency (Cronbach’s alpha = 0.85, 95% CI 0.81 to 0.89), and high test-retest reliability (ICC = 0.89, 95% CI 0.86 to 0.92).

Conclusions: We have presented data to support the validity and reliability of the 10-item Southampton Sickness Behaviour Scale in dementia.

SYMPTOMATIC ORTHOSTATIC HYPOTENSION IS ASSOCIATED WITH SUBJECTIVE MEMORY COMPLAINTS IN A SAMPLE OF COMMUNITY DWELLING OLDER ADULTS

C. J. O'Tiarna, B. A. Lawlor, R. A. Kenny
Technology Research for Independent Living (TRIL) Centre, St. James’s Hospital, Dublin, Ireland

Introduction: Growing evidence suggests a link between orthostatic blood pressure changes and cognitive function. Orthostatic hypotension (OH) is common in older adults and transient cerebral hyperperfusion resulting from OH may cause cerebral white matter changes. Those with subjective memory complaints (SMC) have previously been shown to have regional alterations in cerebral blood flow on positron emission tomography (PET) neuroimaging. We aimed to investigate a potential association between OH and SMC in older adults through exploration of the biological and psychological correlates of symptomatic OH in a group of community dwelling older adults.

Methods: Cross sectional in design, 624 community dwelling participants attended the TRIL Clinic and had a full bio-psycho-social assessment encompassing Mini-Mental State Examination (MMSE), screening for SMC using the Cognitive Failures Questionnaire (CFQ) and measurement of orthostatic phase blood pressure changes.

Results: 383 participants were free from dementia (MMSE > 23) and were found to have OH on the basis of 20mmHg drop in systolic blood pressure upon standing. A logistic regression model found that in addition to changes in systolic blood pressure upon orthostasis and polypharmacy, SMC were significantly associated with symptomatic OH. Scores obtained on the CFQ made a more significant independent contribution to the model (p < 0.001) than did any of systolic blood pressure variables. For every five points higher the score on CFQ (scored 0–100), participants had a greater than 11% increased risk of expressing symptoms of OH (OR 1.02). This contribution was independent of depression, anxiety and personality variables.

Conclusions: Our study suggests a novel link between symptomatic OH and SMC in community dwelling older adults while controlling for potential psychological confounders. If this relationship between OH and SMC were to be confirmed in future studies, symptomatic OH may represent a potential modifiable risk factor for subjective cognitive dysfunction in the elderly.

COGNITIVELY IMPAIRED OLDER PATIENTS’ EXPERIENCES OF CARE ON A MEDICAL AND MENTAL HEALTH UNIT COMPARED TO STANDARD CARE WARDS IN A GENERAL HOSPITAL: A CONTROLLED CLINICAL TRIAL

S. E. Goldberg, K. H. Whittamore1, R. H. Harwood2, J. R. Gladman1, J. M. Schneider1
1Division of Rehabilitation and Ageing, University of Nottingham
2Healthcare of the Older Person, Nottingham University Hospital NHS Trust
3School of Sociology & Social Policy, University of Nottingham

Introduction: Nottingham University Hospital developed a Medical and Mental Health Unit (MMHU) as a demonstration model of best practice care for older people with cognitive impairment admitted to the hospital as a medical emergency. A randomised controlled trial (NIHR TEAM trial) is evaluating patient outcomes between the MMHU and standard care. The aim of this study was to compare patient experience between the MMHU and standard care.

Methods: Patients were randomly sub-sampled from those randomised to the NIHR TEAM trial. Patient experience was measured, by two observers, using Dementia Care Mapping, a structured, non-participant observational tool. Using this method, every five minutes, for 6 hours, patients’ apparent mood or level of engagement and activity was coded. Staff behaviours which met or disregarded the psychological needs of the patient were coded as enhancers or detractors. Environment noise was recorded (alarms/telephones, background noise, patients calling out). Observations were between 07:00 and 20:30. Inter-rater reliability was tested.

Results: 90 observations (46 MMHU versus 44 standard care) were completed between March 2011 to December 2011.

<table>
<thead>
<tr>
<th>MMHU</th>
<th>Standard care</th>
<th>Difference</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median (IQR)</td>
<td>Median (IQR)</td>
<td>Medians (95%CI)</td>
<td></td>
</tr>
</tbody>
</table>

Proportion of time in positive mood/engagement

<table>
<thead>
<tr>
<th>Proportion of time</th>
<th>Median (IQR)</th>
<th>95%CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>in positive mood/engagement</td>
<td>82% (69–92%)</td>
<td>74% (57–87%)</td>
<td>8 (%2–16%)</td>
</tr>
<tr>
<td>Number of enhancers</td>
<td>4 (1–8)</td>
<td>1 (0–3)</td>
<td>3 (1–5)</td>
</tr>
<tr>
<td>Number of detractors</td>
<td>4 (2–7)</td>
<td>5.5 (3–10.5)</td>
<td>1.5 (1–4)</td>
</tr>
<tr>
<td>Background noise</td>
<td>59% (49–65%)</td>
<td>74% (66–85%)</td>
<td>15% (9–21%)</td>
</tr>
<tr>
<td>Calling out</td>
<td>25% (15–36)</td>
<td>43% (22–66)</td>
<td>18% (3–33%)</td>
</tr>
</tbody>
</table>

Conclusion: Patients had a better experience of care on the MMHU than on standard care wards. They spent more time in a positive mood, and experienced more enhancers. There was less ward noise; though more patients called out in distress on the MMHU.