The Tizard Centre

The Tizard Centre is one of the leading academic groups in the UK working in learning disability and community care.

The Centre’s primary aims are, through our research, teaching and consultancy, to find out more about how to support and work with people effectively help carers, managers and professionals develop the values, knowledge and skills that enable better services help policy-makers, planners, managers and practitioners organise and provide better services.

The authors

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Fergal Jones is a clinical psychologist and senior lecturer at Salomons Centre for Applied Psychology. He has a Ph.D. in experimental psychology and a doctorate in clinical psychology. Following working four years full time in the NHS, he now works part time in clinical psychology training and part time in the NHS. Currently his clinical work is with adults with common mental health problems and his main therapeutic approaches are cognitive behavioural therapy and mindfulness-based cognitive therapy. His recent research interests include mindfulness-based approaches, the perseveration of distressing experiences associated with mental health problems, associative learning, and application of learning theory to clinical problems
Introduction

Research has shown that participation in community and leisure activities by people with intellectual disabilities encourages their inclusion in the community, improves their perception of quality of life and contributes to the acquisition of adaptive skills (e.g. Cummins & Lau, 2003).

The quantifiable information provided by objective measures has been considered useful for detecting treatment effects and comparing results across different contexts (Chang et al., 2013). Baker (2000) evaluated the original Guernsey Community Participation and Leisure Assessment (GCPLA) as a valid and reliable measure of objective community use. Since publication, this measure has been used to identify needs, inform care planning and assess interventions at a local level as well as in larger scale randomised control trials (e.g., Hassiotis et al., 2012).

Need to revise GCPLA

Having originally been developed in the late 1990's, some items of the GCPLA were already clearly out-dated. Chang et al (2013) in their systematic review defined community participation as 'active involvement in activities that are intrinsically social and either occur outside the home or are part of a non-domestic role'. This argues that connection to the community does not always require physical presence and could
include in-house activity that involves social networks in the community and social non-
domestic activity. They found that none of the existing community participation measures for people with disabilities covered all relevant domains of community participation. Chang et al. advised the development of new measures, with better design and more complete and specific ICF content coverage. Accordingly, the GCPLA has been updated and revised according to the needs of service users and practitioners as well as the standards set by current research in the field.

**Test Construction**

Two focus groups were convened and consulted on how the GCPLA could be improved, one with people with an intellectual disability and the second with family members, care staff and professionals. Following the focus groups a revised item pool was drafted and sent back to the groups for comments. This draft was revised further before being finalised during the standardisation phase.

**Standardisation**

**Procedure**

The draft GCPLA-r and other standardised measures were administered by sending questionnaire packs to staff across a large supported accommodation service with a presence in three counties across the South East of England.

The researchers attended a small sub-sample of services so as to facilitate inter-rater reliability testing. Test-retest reliability information was also captured by re-administering the GCPLA-r to a sub-sample after at least 6 days had elapsed. The internal consistency, inter-rater reliability, test-retest reliability and construct validity of the new scale were then examined.

**Sample**

A total of 189 staff members (respondents) completed questionnaire packs in respect of individuals with intellectual disability (participants). 36 participants’ data were excluded due to missing values. 153 participants (87 men, 66 women) with a mean age of 45.18 years (SD = 13.35, range = 18-74) comprised the final sample.

The large supported accommodation service from which the participants were recruited was based in the south of England and included many rural locations. This is perhaps reflected in the lack of ethnic diversity in the participants. However, it should be noted that the service’s policy regarding the recording of residents’ ethnicity was to ask the
clients what they felt their ethnicity was. The service manager pointed out that they often found residents identified as White British despite one or both of their parents belonging to other ethnic groups. Table 1 provides a breakdown of the demographic information.

<table>
<thead>
<tr>
<th>Variable</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>66 (43.1)</td>
</tr>
<tr>
<td>Male</td>
<td>87 (56.9)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White British</td>
<td>147 (96.1)</td>
</tr>
<tr>
<td>White European</td>
<td>4 (2.6)</td>
</tr>
<tr>
<td>Mixed White/Asian</td>
<td>2 (1.3)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>8 (5.3)</td>
</tr>
<tr>
<td>25-44</td>
<td>66 (43.7)</td>
</tr>
<tr>
<td>45-64</td>
<td>62 (41.1)</td>
</tr>
<tr>
<td>65+</td>
<td>15 (9.9)</td>
</tr>
</tbody>
</table>

Table 1. Gender, ethnicity and age of participants

**Measures**

Existing measures were used to a) compare the GCPLA-R with a similar measure in order to test its construct validity, and b) to ascertain levels of adaptive skills and perceived challenging behaviour of participants.

**The Short Adaptive Behavior Scale**

The Short Adaptive Behavior Scale (SABS; Hatton et al., 2001) is a 24-item short form of the 73-item Adaptive Behavior Scale Residential and Community (Part 1) (ABS-RC2; Nihira et al., 1993). The measure is designed to evaluate coping skills considered important to personal independence and responsibility in daily living. In the same way as the full version, SABS items reflect three factors (discovered through factor analysis of the full version): Factor A (personal self sufficiency), Factor B (community self-sufficiency) and Factor C (personal-social responsibility). Hatton et al. report good internal consistency (alpha= .89 - .98), high correlation with full ABS-RC2 Part 1 equivalents (r=0.97-0.99) and high levels of agreement between predicted quartile
scores and actual full ABS-RC2 Part 1 quartile scores (Kappa 0.75-0.89; percentage agreement 82%-92%).

The Aberrant Behavior Checklist

The Aberrant Behavior Checklist (ABC; Aman et al. 1985) was developed to assess treatment effects in people with intellectual disabilities. Since its original publication, the ABC has been used in over 325 studies and has been translated into more than 30 languages. The 58-item questionnaire is graded on a four-point scale (0: the behaviour is not at all a problem - 3: it is a very significant problem). Aman et al.’s (1985) factor analysis yielded five sub-scales (irritability, lethargy, stereotyped behaviour, hyperactivity and inappropriate speech). The ABC has been reported to be psychometrically sound. Aman et al. originally reported good internal consistency for each factor (alphas between .86 - .94), acceptable inter-rater reliability for each factor (mean = .63), high test-retest reliability (rs between .96 - .99) and moderate agreements between ABC subscales and relevant ABS Part 2 (‘Problem Behaviors’) domains (rs = .42 - .69). Additionally, many researchers have reported satisfactory psychometric properties in more recent years (Rojahn & Helsel 1991; Marshburn & Aman 1992; Richman et al. 2013).

The Index of Community Involvement

The Index of Community Involvement (ICI; Raynes et al., 1994) is one of the closest existing measures to the GCPLA. It allows the recording of the frequency and range of five social (e.g., had guests to stay the night) and ten community activities (e.g., been shopping). The informant is asked to say whether the person in question has done any of the activities in the last month and, if so, how many times (once to five times or more). Interrater reliability of 92% and internal reliability coefficients of 0.85 (group) and 0.77 (individual) have been obtained (Raynes 1988). The ICI has been used in a number of studies (e.g., Felce et al. 1998, Emerson & McVilly 2004), although in these studies modifications of the original measure have been made.

Analysis

For the purpose of comparing scores both within and between groups, individual GCPLA-r mean scores were calculated. Where more than 20% of GCPLA-r data was missing a mean was not calculated and the score was excluded from the analysis.
Internal Consistency

Internal consistency was high (Cronbach’s alpha = .84). This should be interpreted with some caution as Field (2013) points out that alpha values increase with the number of items in a scale. Additionally, four items were identified as having an extremely low corrected item correlation (< .138) and, when excluded, alpha increased. These items were; attend the hospital, attend the doctor, spend time with family and play solitary games.

Test-Retest Reliability

Test-retest reliability was based on a sub-sample of 16 participants and calculated after a period of between six days and six weeks. Bivariate Spearman’s correlations (two-tailed) were calculated between the mean scores at test and re-test, $r_s = .79$, 95% CI [.37, .98], $p<.05$.

Inter-rater Reliability

Inter-rater reliability was based on the same yes sub-sample of 16 participants. Bivariate Spearman’s correlations (two-tailed) were again calculated. In many cases the second rater did not complete the GCPLA on the same day as the first rater, but rather up to six weeks later. A significant correlation was found between ratings ($r_s = .55$, 95% CI [.03, .83], $p<.05$).

Construct Validity

Construct validity was based on a sub-sample of 14 participants. Following bivariate Spearman’s correlational analysis (two tailed), significant positive correlations were found between the ICI and the GCPLA-R total scores ($r_s = .69$, 95% CI [.54, .79], $p<0.001$).

Additionally, a subset of 14 participants provided a seven-day diary recording the frequency of activities listed on the GCPLA-R. The delay between filling out the GCPLA-R and beginning the seven-day diary was between 31 and 70 days (mean= 49.5 days). Bivariate Spearman’s correlational analyses (two-tailed) were computed, with significant positive correlations being found between diary entries and the GCPLA-R scores ($r_s = .77$, 95% CI [.38, .94], $p<0.001$).
Associations with other participant characteristics

There were no significant differences between GCPLA-R scores for men (n=87) and women (n=66) (Mann-Witney U = 2824 Z = -.173, n.s). Bivariate Spearman’s correlations (two-tailed) found that age was negatively correlated with Total GCPLA-R Scores (rs = -.37, 95% CI [-.50, -.23], p <0.001). Bivariate Spearman’s correlational analysis (two-tailed) found that there were significant positive correlations between service users’ scores on the SABS and the GCPLA-R total (rs <.24, 95% CI [.09, .38], p <0.05). Bivariate Spearman’s correlational analysis (two-tailed) found that there were significant negative correlations between participants’ scores on the GCPLA-R and ABC subscales of Irritability, Lethargy & Stereotypy: Irritability (rs = -.173, 95% CI [-. .33, -.01], p <0.05); Lethargy (rs = -.30, 95% CI [-.45, -.15], p <0.01); Stereotypy (rs = -.18 95% CI [-.34, -.02] p <0.05); Hyperactivity (rs = -.15, 95% CI [-.33, -.02] n.s.); Inappropriate speech (rs = -.10, 95% CI [-.26, .07] n.s.

Comparing GCPLA-R scores for people with and without intellectual disabilities

Mann Whitney U analyses were computed to compare the scores of adults with and without intellectual disabilities. 30 staff members completed the GCPLA-r with scores significantly higher (p<0.001) in the sample of adults without learning disabilities, mean of 142 in comparison to mean total score of 82 for service users.

How to use the GCPLA-R

The GCPLA-r is designed to be completed by either the individual with intellectual disability or someone who knows well the individual's usual patterns of activity. The measure has 46 items that relate to a community contact or activity. The respondent is asked to rate the frequency of access to each contact/activity on a five-point scale: 0 = never, 1 = less than every 3 months, 2 = at least every three months, 3 = monthly or more frequently, 4 = weekly or more frequently and 5 = daily or more frequently. Item scores are summed to yield sub-scale and total scores.
References


