Assessing motivation for work in people with developmental disabilities
John Rose, Jane Perks, Merih Fidan and Maddie Hurst
*Journal of Intellectual Disabilities* 2010 14: 147
DOI: 10.1177/1744629510382067

The online version of this article can be found at:
http://jid.sagepub.com/content/14/2/147

Published by:
SAGE
http://www.sagepublications.com

Additional services and information for *Journal of Intellectual Disabilities* can be found at:

- Email Alerts: http://jid.sagepub.com/cgi/alerts
- Subscriptions: http://jid.sagepub.com/subscriptions
- Reprints: http://www.sagepub.com/journalsReprints.nav
- Permissions: http://www.sagepub.com/journalsPermissions.nav
- Citations: http://jid.sagepub.com/content/14/2/147.refs.html
Assessing motivation for work in people with developmental disabilities

JOHN ROSE  University of Birmingham, UK
JANE PERKS  Dudley Community Services
MERIH FIDAN  University of Birmingham, UK
MADIE HURST  University of Birmingham, UK

Abstract  Factors that might influence motivation for work have been neglected in previous investigations in the process of people with intellectual disabilities finding employment. This article describes the development of The Work Readiness Scale which was largely adapted from The Readiness to Change Questionnaire. A structured interview was conducted with 69 participants who had developmental and intellectual disabilities while at the supported employment agency or vocational training centre in a large city in England. A subgroup of 43 individuals completed the questionnaire again about two weeks later. A member of staff who knew the person well was asked to independently rate the motivational level of the individual. The questionnaire seems to have reasonable psychometric properties and may have utility in assessing individuals for work and designing appropriate training to find work.

Keywords  developmental disability; employment; intellectual disability; motivation; questionnaire; supported employment; work

Introduction

Having a job is a significant part of most people’s lives, and allows them to develop a sense of identity and status within society (Stevens and Martin, 1999). It is reported that employment can increase the psychological wellbeing of people with intellectual disabilities (Stenfert Kroese et al., 2000). Stenfert Kroese et al. (2000) and Griffin et al. (1996) have found that people with intellectual disability in open employment had higher measures of psychological wellbeing than those who are not in work or
who are in sheltered employment. Several studies have indicated that individual characteristics play a part in determining whether a person with intellectual disability will find and keep employment. These include severity of disability, communication skills, health status and motivation (Beyer et al., 1996; Joseph Rowntree Foundation, 1996; Lemaire and Mallik, 2008; McConkey and Mezza 2001). Vocational training or work experience has also been found to increase the likelihood of a person with ID obtaining a job (Beyer et al., 2008). Other factors that have been identified as barriers include typical recruitment methods (Broad, 2007), social factors (Ferrari et al., 2008), and general systemic and social barriers to choice and meaningful participation (Lysaght et al., 2009).

Motivation is considered to be such an important factor that several employment agencies use it as their most important criterion when accepting referrals (Beyer et al., 1996). Research indicates that people with intellectual disabilities may have lower motivation than people without disabilities (e.g. Grolnick and Ryan, 1990; Kunnen and Steenbeck, 1999). A study of records kept by staff at a supported employment agency for people with intellectual disability indicated that the only factor that predicted whether an individual would obtain a job was staff assessed motivation to seek employment (Rose et al., 2005). Another study (Hensel et al., 2006) investigated individuals with an intellectual disability who had attended a supported employment agency and examined differences between those who obtained work and those who did not. Those who obtained work were more motivated by issues of status and were generally less happy with their life when they started at the employment agency. This study suggested that those individuals who were more dissatisfied with their life were more motivated to change their life circumstances by seeking and obtaining employment. While issues of motivation are important, no measures of self-assessed motivation for work exist for people with intellectual disabilities.

The transtheoretical model (TTM) is a model of intentional change and was developed by Prochaska and DiClemente (1983). The model has been the basis for developing effective interventions to promote health behaviour change, and has been applied to research in smoking (Prochaska and DiClemente, 1983). DiClemente (1999) claims that the idea of ‘readiness to change’ lies at the heart of understanding motivation, which refers to the extent to which an individual is motivated to change any problematic behaviour.

The model suggests five stages for a desired change;

1 Pre-contemplation: people do not intend to take action towards a desired behaviour in the foreseeable future, usually in the next six months.
Contemplation: people intend to change in the next six months. They are more aware of the advantages of changing but are also acutely aware of the disadvantages.

Preparation: people intend to take action towards a desired behaviour, usually in the next month.

Action: people have made specific overt modifications in their lifestyles within the past six months.

Maintenance: people are working to prevent relapse but they do not apply change processes as frequently as they did in the action stage (Prochaska and Velicer, 1997).

Processes of change provide important guidelines for intervention programmes, since the processes are the independent variables that people need to apply, or be engaged in, to move from stage to stage. The Readiness to Change Questionnaire was developed for use in conjunction with brief opportunistic interventions among excessive drinkers. The questionnaire is based on Prochaska and DiClemente’s (1983) stages of the transtheoretical model. The main rationale for the development of the questionnaire was to assign excessive drinkers to an optimal form of brief intervention depending on their assessed stage of change (Heather et al., 1993).

The present study will examine the issue of motivation in relation to employment for people with intellectual disability. The study aimed to develop a questionnaire based on some items in the Readiness to Change Questionnaire, but adapted in relation to motivation for work and simplified so as to be accessible to people with mild or moderate intellectual disabilities. After developing the scale we aimed to check internal consistency, test–retest reliability and some aspects of validity of the adapted scale.

Method

Participants and settings
Sixty-nine participants were invited to take part in the study. There were 34 men and 35 women. All were attending either a supported employment agency or a vocational training centre in a large city in the UK. These services were principally designed for people with moderate intellectual disability; however, some individuals had autistic spectrum disorder and other developmental disabilities without associated intellectual disability. The supported employment agency provided support to individuals to help find work for a limited period, generally up to 13 weeks; however, extensions to this period were common when the research was being carried out. The vocational training scheme provided sheltered employment for
longer periods; however, regular reviews were carried out on people who attended the scheme.

**Procedure**

Ethical approval was gained through a university ethics committee. A structured consent process was used whereby the purpose of the study was explained to the participant and a number of questions were asked to make sure they understood the procedure and their commitment to the project; if willing, they were then asked to sign a consent form. Two individuals declined to take part in the research at this stage. The Work Readiness Scale was then administered as a structured interview and background information was recorded. This was then followed by the WASI which was administered to establish the IQ levels of participants and establish elements of the characteristics of the research sample. The WASI was developed to meet the demands for a short and reliable measure of intelligence in clinical, psycho-educational and research settings. It is claimed that the scale is the best alternative as a short form of a Wechsler Intelligence Test when time is limited and there is a need for a quick estimate of intellectual functioning (Psychological Corporation, 1999).

The participants were also asked if they would take part in a second administration of the scale in two weeks’ time. The second administration was carried out in order to establish the test–retest reliability of the Work Readiness Scale.

At the end of the interview the participants were debriefed. After each interview, a member of staff who knew the person well, within the context of the agency, was asked to independently rate the motivational level of that client on a one to five point scoring system, ranging from poor to excellent motivation (Rose et al., 2005).

Twenty-four participants either declined to participate in the retest or were not available for a variety of reasons.

**Work Readiness Scale**

The items of the Work Readiness Scale were adapted from the Readiness to Change Questionnaire so as to apply to people with intellectual difficulties who are unemployed, based on the hypothesis that the first three stages of the transtheoretical model (pre-contemplation, contemplation and action) would provide an appropriate basis for a scale. The items were reworded to fit a work context and simplified for the participants with intellectual difficulties. A number of items did not translate between the areas of problem drinking and work and were removed from the questionnaire; others required significant change. Overall 13 items were included. These reworded and adapted items were checked by independent clinicians and
professionals working in the supported employment agency for face validity and also shown to a small group of individuals who were attending the centre to assess face validity. Further changes were made to some questions on the basis of these comments. Three scales were compiled which it was thought would represent the first three stages of the trans-theoretical model; the items were also combined to form a single 13-item scale (Table 1). The items on the WRS were rated on a five-point Likert scale; however, this was augmented by the use of a visual prompt card which contained smiley faces, with five faces representing ‘strongly agree’ (scoring 5) and one face representing 'strongly disagree' (scoring 1). Two of the items were reverse scored to ensure that participants did not fall into a consistent response set.

Data analysis
In order to check the internal consistency of the WRS and the subscales, Cronbach’s alpha was used. Cronbach’s alpha estimates the reliability of the scale by determining the internal consistency of the test or the average correlation of items within the test (Cronbach, 1951). Alpha coefficients range in value from 0 to 1. The higher the score, the more reliable is the generated scale. Nunnaly (1978) has indicated 0.7 to be an acceptable reliability coefficient, but lower thresholds are sometimes used in the literature.

The scales were checked for normality using a one-sample Kolmogorov–Smirnov test. However, the staff rated scale was not normally distributed, and so issues of reliability and validity between the variables were investigated using non-parametric statistics.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Items of the Work Readiness Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>My friends are happy that I am looking for a job</td>
<td></td>
</tr>
<tr>
<td>I am very confident I will find a job</td>
<td></td>
</tr>
<tr>
<td>I want a job because it will get me out of the house</td>
<td></td>
</tr>
<tr>
<td>I am trying to find a job</td>
<td></td>
</tr>
<tr>
<td>It is a waste of time looking for a job because I don't need to have one</td>
<td></td>
</tr>
<tr>
<td>I have family members who encourage me to find a job</td>
<td></td>
</tr>
<tr>
<td>I want a job because I will learn new skills</td>
<td></td>
</tr>
<tr>
<td>I am not serious about finding a job</td>
<td></td>
</tr>
<tr>
<td>My family want to help me find a job</td>
<td></td>
</tr>
<tr>
<td>I have started to do some things to help me look for a job</td>
<td></td>
</tr>
<tr>
<td>Anyone can talk about wanting a job but I am getting out there and really searching</td>
<td></td>
</tr>
<tr>
<td>Sometimes I think I should try to find a job</td>
<td></td>
</tr>
<tr>
<td>I am actively job searching</td>
<td></td>
</tr>
</tbody>
</table>

a These items were reverse scored.
Results

Sixty-seven participants were interviewed in the initial phase of the study, of which 33 were male and 34 were female; the age of the participants ranged from 17 to 56. Six participants (8.9%) lived on their own, three (4.5%) with partners, 41 (60.1%) with their family, and 17 in staffed accommodation (25.3%). The sample was ethnically diverse: out of the individuals who completed data on ethnic origin, 76.0 percent were from a white European background, 13.9 percent from a South Asian background and 7.6 percent from an Afro-Caribbean background, the remaining 2.5 percent identifying themselves as having ‘other’ or mixed ethnicity.

The mean IQ of the participants was 73 and the standard deviation was 16.50. The range of IQ was 55–137. The median was 70.5 and the mode was 55.

Internal consistency

The internal consistency of the subscales and full scale was investigated using Cronbach’s alpha. Unfortunately, the consistency of the subscales was poor and did not meet the appropriate threshold for reliability. However, the internal consistency for the full scale of 13 items did meet the criteria with an alpha coefficient of 0.728. As a result of this, only the full scale of the questionnaire will be explored in subsequent analyses.

The mean score on the first administration of the Work Readiness Scale was 52.6 (S.D. 5.8) with a range from 38 to 63.

Test–retest reliability

Forty-three of the participants were retested on the Work Readiness Scale one to four weeks after the initial administration. As a measurement for test–retest reliability a correlation using Spearman’s rho was calculated between the two administrations of the Combined Work Readiness Scale. For the 43 participants a correlation coefficient of rho = 0.425 was obtained (p > 0.01).

Validity

The validity of the Work Readiness Scale was investigated by comparing the Work Readiness Scale total with the motivational levels recorded using the staff rated motivation scale, using Spearman’s rho. The scale was modestly correlated with staff motivational ratings, rho = 0.212 (p > 0.05).

A correlation was also conducted between the age of participants and their scores on the Work Readiness Scale and a correlation was found between the two, rho = –0.298 (p > 0.05). This suggests that the older the individuals, the less motivated they were to seek employment.
Discussion

The main aim of the study was to develop a self-assessment of motivation for work that could be used reliably and validly by people with intellectual disabilities. A questionnaire consisting of a single scale has been developed that has reasonable internal consistency and test–retest reliability. An association was also found with a staff assessment of motivation, although this was relatively modest. This might be expected as staff may not have a complete picture of the individual and will be making their motivational judgements on a relatively limited amount of information. While it was stressed that a member of staff who knew the individuals well should complete the staff motivation rating, some of the participants had only been attending the agency for as short a time as eight weeks. The length of time that staff had with these individuals was necessarily limited, and this lack of familiarity may have caused difficulties with the assessment.

The majority of the individuals in this study were taking part in a programme aimed at finding work, and this could have led to the data being skewed or the people in the study reporting more favourable views towards work than they actually held. Some of the individuals were required to attend the programme in order to continue to receive their benefits; however, at the time of the study they did not lose benefit if they were unsuccessful in finding work. This compulsion may have also led individuals to report greater levels of motivation than they actually felt on the questionnaires as they may have perceived the questionnaires to be monitoring their attitudes to work in an official capacity. Alternatively, people with intellectual disabilities may have generally favourable attitudes and motivation to work; this phenomenon needs further investigation through studies aimed at people who are not actively seeking work. In order to improve the validity of the findings, a broader distribution of participants from different settings such as those attending day centres or without day occupation may give more representative views. The small sample of individuals who took part in the test–retest reliability was also a weakness of the study, and future research should seek to replicate this aspect of the study.

It was disappointing that the internal consistency of the individual scales based on the transtheoretical model was not sufficiently high for them to be analysed independently. However, it was difficult to develop items that were conceptually distinct and fitted the descriptions of ‘pre-contemplation’, ‘contemplation’ and ‘action’. Some of this difficulty may have been due to problems with the sample coming from an employment agency where most individuals should have been at the ‘action’ stage in relation to finding work. While the combined scale cannot assist in
determining an individual’s precise stage in the process of finding work, the higher their score the more motivated they should be to find work. This may assist staff who are working with them and allow an evaluation of programmes that have been designed to increase motivation for work. Further research could investigate the validity of the scale by examining whether data from this scale are predictive of individuals gaining and keeping employment. The result indicating a decrease in motivation with age may indicate that older individuals have had more experience of failure which may decrease their motivation for work. However, research is needed to confirm this hypothesis.

The participants in these studies used intellectual disability services; however, the wide range of IQ scores suggests that some have borderline or no intellectual difficulty. Some participants in the sample would probably be more accurately described as having other disabilities (e.g. Asperger syndrome, specific learning difficulties and mental health problems); however, the lack of assessment information prevented a detailed consideration of the abilities of individual participants. This situation is probably characteristic of many employment services and is thus a good test of the acceptability of the questionnaire for a range of groups with differing needs. However, further work with people who have just an intellectual disability would be required to look at issues that related to that specific group of individuals.

The questionnaire is fairly limited in its scope, and further work could be done to select items that may represent a broader range of factors concerning motivation such as monetary reward and work aspirations. There is clearly room to develop this aspect of assessment for work. However, we feel that this questionnaire may have uses in the assessment of people with intellectual and other disabilities in their suitability for work, and could be used as an indicator of whether further training may be useful to them prior to work.

References


**Correspondence** should be addressed to:

**John Rose**, The School of Psychology, The University of Birmingham, Edgbaston, Birmingham B15 2TT, UK. E-mail: j.l.rose@bham.ac.uk

**Date accepted** 25/07/10