Cognitive variables and depressed mood in adults with intellectual disability

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Abstract

Background Cognitive theory forms the foundation for cognitive therapy. There has been little research on cognitive theories and cognitive variables associated with depression in individuals with intellectual disability (ID). The current study examined cognitive variables of automatic thoughts, cognitive triad, hopelessness, attributions and self-esteem associated with two cognitive theories of depression: Beck’s Cognitive Triad theory and the Hopelessness theory of depression.

Methods Seventy-three adults with ID screened for adequate receptive vocabulary were interviewed as part of a larger study. They reported on cognitive constructs relating to depressed mood. In addition, comparisons were made between 12 adults with ID and diagnosed major depression and a matched group of 12 adults with ID and no psychiatric diagnoses in order to determine if these groups differed on the cognitive constructs associated with the two cognitive theories of depression.

Results The cognitive variables examined were all significantly correlated with depressed mood in the direction predicted by their respective cognitive theory. Internal consistencies were good or excellent for most instruments, with the exception of those measuring hopelessness and attributions. In addition, significant differences were obtained between groups of individuals with and without co-morbid major depression on all variables except for hopelessness.

Conclusions The results indicate that adults with ID screened for adequate receptive vocabulary are capable of reporting on subjective feelings of depressed mood and associated cognition constructs. The instruments used may be suitable for this population as they generally possessed sound internal consistencies. The results support the further examination of cognitive theories of depression among individuals with ID in order to assess the appropriateness of cognitive therapies for this population. Discrepant findings regarding hopelessness are discussed.

Keywords attributions, automatic thoughts, cognitive variables, depression, hopelessness, intellectual disability

Introduction

Although research on depression among individuals with intellectual disability (ID) has been advancing for decades, it is only recently that the influence of cognitive variables has been examined with this population (Nezu et al. 1995; Glenn et al. 2003). Biological, behavioural and interpersonal theories of depression have previously been examined among...
The first identified work examining the association between cognitive variables and depression assessed verbal behaviour among depressed and non-depressed individuals with ID. No differences in the frequency of negative self-statements were found between the two groups (Matson et al. 1983). It should be noted that the study compared individuals with high scores on the Beck Depression Inventory (BDI) with individuals with low scores. It was not noted whether high BDI subjects had been diagnosed with depression, limiting the author’s conclusions. In an evaluation of a modified cognitive therapy for depression among two individuals with mild ID, self-report scores on the BDI were found to decrease with treatment (Lindsay et al. 1993). It was concluded that cognitive therapy was feasible with this population.

Nezu et al. (1995) provided the first empirical examination of cognitive variables associated with depression among adults with mild ID. Measures of automatic thoughts (ATQ; Automatic Thoughts Questionnaire), hopelessness (HSC; Hopelessness Scale for Children), self-reinforcement (FSRQ; Frequency of Self-Reinforcement Questionnaire) and negative social support (SSNI; Social Support Network Inventory) were all found to be associated with depression. Both self-report measures of depression, the BDI and the Psychopathology Inventory for Mentally Retarded Adults (PIMRA), were significantly correlated with the cognitive measures, indicating that individuals with higher depression scores exhibit more negative automatic thoughts, more hopelessness and lower rates of self-reinforcement. The study also confirmed these findings with a group of individuals with ID diagnosed with clinical depression as compared with a matched control group without depression.

Most recently, Glenn et al. (2003) examined the ‘cognitive specificity’ of cognitions related to anxiety and depression among adults with borderline intellectual functioning to moderate ID. Self-report assessments of negative automatic thoughts (ATQ) were associated with measures of depression (BDI). In addition, cognitive variables (ATQ and CCL; Cognitive Checklist) accounted for 79% of the variance in predicting depression. Although 15% of their sample was diagnosed with clinical depression, they did not examine differences between depressed and non-depressed individuals.
The literature to date examining cognitive variables and depression among individuals with ID has been preliminary, in spite of supportive of associations similar to those found in the general population. It continues to be important to evaluate self-report measures of cognitive variables in order to assess their psychometric properties and provide a sound foundation for evaluating cognitive theories that serve as the basis for cognitive therapy. It should be noted that when using self-report measures among individuals with mental retardation, several methodological issues need to be taken into account regarding question content, question phrasing and response format. Several comprehensive reviews are available on this topic (see Prosser & Bromley 1998; Finlay & Lyons 2001, 2002).

The current study expands upon previous work by examining cognitive variables specific to Beck’s Cognitive Triad theory and the Hopelessness Theory of Depression, thus providing a basis for evaluations of these cognitive theories of depression. The examination includes psychometric properties of the cognitive variables, their association with depressed mood, and their ability to discriminate between individuals with and without clinical depression. Specifically, greater depressed mood was hypothesized to be associated with variables from Beck’s Cognitive Triad (negative automatic thoughts, negative cognitive triad) and with variables from the Hopelessness theory (negative attributional style, greater hopelessness, low self-esteem). The cognitive triad and attributional style are core components of their respective theories and have not been evaluated to date among individuals with ID.

Method and materials
Participants and recruitment
Participants were recruited from nine agencies providing services for individuals with ID for a larger study on depression and psychopathology, cognition variables, social skills/support and behaviour. Agencies provided supported living and group home services. An agency representative recommended and approached individuals for participation in the study. Individuals with psychiatric diagnoses of delirium, dementia, amnesic disorders or other cognitive disorders, schizophrenia or other psychotic disorders, anxiety disorders, factitious disorders, or dissociative disorders were excluded from participation.

One hundred and twenty-two individuals were screened for participation. Consent for participation and access to medical records was obtained from the individual or their legal guardian. Individuals were screened for adequate receptive vocabulary as measured by an age equivalent of 5–0 years or greater on the Peabody Picture Vocabulary Test-III (Dunn et al. 1997) and the ability to answer 4-point Likert-type questions. The Likert-type screening questions were adapted from procedures used in previous studies (Helsel & Matson 1988; Nezu et al. 1995) and included nonsense questions to screen for individuals likely to acquiesce in their answers. Thirty-seven individuals were excluded as a result of limited receptive vocabulary, four individuals were unable to answer the Likert-type screening questions and eight were unable to participate in the screening (non-verbal), resulting in a sample of 73 individuals.

There were 73 participants interviewed with ID (67% mild ID, 12% moderate ID, 16% borderline intellectual functioning, 4% not specified). Participants ranged in age from 20 to 76 (M = 40.6 years, SD = 12.2), were primarily Caucasian (86%), male (51%) and worked in competitive (22%), sheltered (33%) or supported employment (25%). Most lived in their own home with supports (88%), with the remaining living in staffed apartments, group homes or with their parents. Nine individuals had a genetic diagnosis of Down syndrome. Two other individuals were diagnosed with Dubowitz Syndrome and Klein-Felters Syndrome. The following psychiatric diagnoses of the Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition (DSM-IV) were obtained from the participants’ psychiatric records: major depression, 12; bipolar disorder, 6; dysthymia, 3; mood disorder, 1; other, 11; and 40 reported no psychiatric diagnoses. Medical prescriptions were also obtained. Twenty-nine percent of the sample was prescribed antidepressant medication, 14% were taking antiepileptics, 14% were taking anxiolytic-hypnotics, and 11% were taking antipsychotic medication. Fifty-two percent of the sample was taking at least one psychotropic medication.

A group of individuals from the sample with no psychiatric diagnosis were matched to the 12 individuals with major depression. Individuals were matched on gender, age (within 2 years) and level of intellec-
tual functioning. This group is referred to as the ‘non-depressed’ group.

Measures

The Self-Report Depression Questionnaire (SRDQ) served as the measure of depressed mood (Reynolds & Baker 1988). The SRDQ is a 32-item self-report measure of depressive symptomatology developed for individuals with ID. It is reported to measure physical, ‘I get stomach aches’, cognitive, ‘I feel sorry for myself’, and behavioural symptoms ‘I feel like hiding from people’, of depression. Response choices include ‘almost never’, ‘sometimes’, and ‘most of the time’. The last item on the SRDQ asks the individual to choose between faces that express how he or she felt during the last 2 weeks. Psychometrics for the SRDQ are adequate; internal consistency is high, test-retest reliability is moderate and criterion validity has been established with the Hamilton Depression Rating Scale (Reynolds & Baker 1988).

Five additional cognitive constructs were examined using self-report measures. The constructs examined in the study and the measures used included attributions (Children’s Attributional Styles Questionnaire), automatic thoughts (ATQ), the cognitive triad (Children’s Cognitive Triad Inventory), hopelessness (HSC) and self-esteem (Piers-Harris Children’s Self-Concept Scale). Each of these measures was reviewed for its item content and response format to ensure it was suitable for individuals with ID. With the exception of the ATQ, each measure included items that are reverse scored which increased the chances of detecting acquiescence.

The Children’s Attributional Styles Questionnaire (CASQ) is a 48-item questionnaire containing positive and negative events and two possible causes for the event (Seligman et al. 1984). The attributional styles measured are internal/external, stable/unstable, and specific/global dimensions. The participant chooses between two items representing different dimensions. Internal consistency is high for composites of positive and negative events, and test-retest stability over 6 months is good (Seligman et al. 1984). As the CASQ was developed for children, several items are not age-appropriate or cannot be reworded for use with adults with ID. These items refer to school or child activities such as having a magician at a party. For this study, items referring to parents or teachers were reworded to refer to home staff or instructors. In total, seven items were deleted, resulting in an adapted 41-item CASQ. Scoring was adjusted accordingly.

The Automatic Thoughts Questionnaire (ATQ) is a 30-item self-report measure of the frequency of automatic negative thoughts and self-statements associated with depression (Hollon & Kendall 1980). The scale provides a measure of specific cognitive ruminations (i.e. I wish I were a better person; I’m a failure). A high score indicates a greater frequency of automatic depressive thoughts. Reliability and validity for the ATQ have been found to be sound in samples of both adults and children (Dobson & Breiter 1983; Kazdin 1990). Although developed for undergraduate students, the items are easy to understand and worded simply. Originally measured on a 5-point Likert-type scale, for this study, a 4-point scale was used (1 = not at all, 2 = sometimes, 3 = often, 4 = all the time).

The Cognitive Triad Inventory for Children (CTI-C) is a 36-item instrument measuring negative view of self, the world and the future (Kaslow et al. 1992). Each of the three sub-scales contains 12 items which are answered as either yes, no or maybe. Half of the items in each sub-scale are worded in a positive direction, and half in a negative direction. Reliability and validity for the CTI-C are acceptable and have been confirmed in replication studies (Kaslow et al. 1992; Zauszniewski et al. 1999). Two items for the present study were reworded to refer to work rather than schoolwork.

The Hopelessness Scale for Children (HSC) measures negative expectations of the future (Kazdin et al. 1986). Participants rate the 17 items as true or false. Higher scores represent hopelessness. The HSC is internally consistent and has moderate test-retest reliability with the general population. The validity of the HSC has been confirmed among children and adolescents with cognitive disabilities (intellectual disability or learning disability) (Wehmeyer & Palmer 1998). Five items were reworded for the present study to represent ‘growing older’ rather than ‘growing up.’ One item was reworded to compare oneself with other ‘people’ rather than ‘kids. The Piers-Harris Children’s Self-Concept Scale (PH-SCS) is an 80-item self-report instrument intended to measure self-concept among children in grades 4–12 (Piers & Harris 1969). Response choices are yes and no. Eleven
items of the PH-SCS were adapted for use with an adult population with ID by either altering items relating to school to relating to work, or by changing wording from ‘classmates’ to ‘co-workers.’ Eight items were deleted from the original because of jargon or the inability to adapt the wording to be appropriate for adults. This resulted in a 72-item adapted Self-Concept Scale.

Procedures

Interviews and screenings were administered by the lead author and three research assistants in the participant’s home. It took approximately 30 min to review consents and screening procedures. The interview questions were administered as part of a larger study and interviews lasted between 90 and 120 min. All instruments were read aloud to the participants and instructions for each measure were reviewed prior to its administration. Visual displays of the response choices were provided to assist the participant in making and remembering response choices. Participants were paid $5.00 for their time.

Results

The means and standard deviations of each measured variable are presented in Table 1. Also presented is the potential and obtained range of scores. The direction of scoring indicative of depression (High, Low) is included for each measure where appropriate. Correlations between the measured variables, age and receptive vocabulary are presented in Table 2.

### Table 1 Means, SD and range of scores (n = 73)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean (SD)</th>
<th>Range</th>
<th>Potential range</th>
<th>Depressive direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-III raw score</td>
<td>116.7 (29.1)</td>
<td>71–191</td>
<td>65–204</td>
<td>–</td>
</tr>
<tr>
<td>SRDQ</td>
<td>54.6 (12.6)</td>
<td>32–88</td>
<td>32–96</td>
<td>High</td>
</tr>
<tr>
<td>ATQ</td>
<td>57.1 (19.9)</td>
<td>30–113</td>
<td>30–150</td>
<td>High</td>
</tr>
<tr>
<td>HSC</td>
<td>4.7 (2.5)</td>
<td>0–11</td>
<td>0–17</td>
<td>High</td>
</tr>
<tr>
<td>CASQ</td>
<td>5.8 (3.7)</td>
<td>−1–16</td>
<td>−24–24</td>
<td>Low</td>
</tr>
<tr>
<td>CTI-C</td>
<td>57.2 (8.7)</td>
<td>37–72</td>
<td>36–108</td>
<td>Low</td>
</tr>
<tr>
<td>PH-SCS</td>
<td>52.8 (9.2)</td>
<td>29–69</td>
<td>0–72</td>
<td>Low</td>
</tr>
</tbody>
</table>

PPVT-III, Peabody Picture Vocabulary Test; SRDQ, Self-Report Depression Questionnaire; ATQ, Automatic Thoughts Questionnaire; HSC, Hopelessness Scale for Children; CASQ, Children’s Attributional Style Questionnaire; CTI-C, Cognitive Triad Inventory for Children; PH-SCS, Piers-Harris Self-Concept Scale for Children.

### Table 2 Inter-correlation† and internal consistency of measures (n = 73)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Age</th>
<th>PPVT-III raw score</th>
<th>SRDQ</th>
<th>ATQ</th>
<th>HSC</th>
<th>CASQ</th>
<th>CTI-C</th>
<th>PH-SCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRDQ</td>
<td>0.15</td>
<td>−0.24*</td>
<td>(0.92)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATQ</td>
<td>0.14</td>
<td>−0.27*</td>
<td>0.75**</td>
<td>(0.94)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSC</td>
<td>0.00</td>
<td>−0.31**</td>
<td>0.26*</td>
<td>0.44**</td>
<td>(0.51)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CASQ</td>
<td>−0.25*</td>
<td>0.25*</td>
<td>−0.33**</td>
<td>−0.32*</td>
<td>−0.33**</td>
<td>(0.39)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTI-C</td>
<td>−0.14</td>
<td>0.38**</td>
<td>−0.48**</td>
<td>−0.54**</td>
<td>−0.46**</td>
<td>0.46**</td>
<td>(0.80)</td>
<td></td>
</tr>
<tr>
<td>PH-SCS</td>
<td>−0.16</td>
<td>0.14</td>
<td>−0.66**</td>
<td>−0.58**</td>
<td>−0.25*</td>
<td>0.42**</td>
<td>0.63**</td>
<td>(0.87)</td>
</tr>
</tbody>
</table>

PPVT-III, Peabody Picture Vocabulary Test; SRDQ, Self-Report Depression Questionnaire; ATQ, Automatic Thoughts Questionnaire; HSC, Hopelessness Scale for Children; CASQ, Children’s Attributional Style Questionnaire; CTI-C, Cognitive Triad Inventory for Children; PH-SCS, Piers-Harris Self-Concept Scale for Children.

*P < 0.05; **P < 0.01.
†Correlations between cognitive measures controlling for PPVT-III raw score.
1Scale alphas presented on diagonal.

along with the internal consistency alphas of the measured variables. Internal consistencies were good or excellent for the SRDQ, ATQ, CTI-C and the PH-SCS. The HSC and CASQ possessed poor internal consistency. Age was significantly associated with the CASQ ($r = -0.25$, $P < 0.05$), but not with the other variables. $T$-tests revealed no gender differences on any measure [ATQ $t(69) = 0.05$, $P > 0.05$; CASQ $t(64) = 0.89$, $P > 0.05$; CTI-C $t(69) = 0.70$, $P > 0.05$; HSC $t(71) = -0.55$, $P > 0.05$; PH-SCS $t(70) = 1.50$, $P > 0.05$; SRDQ $t(71) = -1.80$, $P > 0.05$]. Receptive vocabulary, as measured by raw scores on the PPVT-III, was significantly correlated with several measures. Individuals with lower receptive vocabulary reported greater depressed mood, greater hopelessness, more negative automatic thoughts, and a more positive cognitive triad and attributional style. When partialling out the effects of receptive vocabulary, self-reports of depressed mood were found to be significantly correlated with the ATQ, HSC, CASQ, CTI-C, and PH-SCS as shown in Table 2. These results indicate that individuals with ID reporting depressive symptoms also display greater automatic thoughts, less positive attributional styles, a negative cognitive triad, more hopelessness and lower self-esteem.

The 12 individuals (6 women/6 men) diagnosed with major depression were matched with 12 individuals from the sample who did not have a psychiatric diagnosis. Individuals were matched on gender, age (within 2 years) and level of intellectual functioning. The two groups were assessed for differences in scores on the cognitive measures (SRDQ, ATQ, CASQ, CTI-C, PH-SCS, HSC) using MANOVA. The distribution of the data was normal according to tests for skewness and kurtosis and appropriate for use with MANOVA. The overall difference between the two groups was significant (Pillai’s Trace $F_{6,14} = 2.75$, $P = 0.05$). The observed power of the analysis was 0.69. Group means are presented in Table 3. Differences between the two groups on the individual measures primarily confirmed the findings of the correlation table. Individuals diagnosed with major depression reported greater depressed mood (SRDQ: $F_{1,19} = 14.40$, $P < 0.01$), more automatic thoughts (ATQ: $F_{1,19} = 6.24$, $P = 0.02$), a more negative cognitive triad (CTI-C: $F_{1,19} = 5.33$, $P = 0.03$), a more negative attributional style (CASQ: $F_{1,19} = 5.14$, $P = 0.04$), and lower self-esteem (PH-SCS: $F_{1,19} = 6.24$, $P = 0.02$) (see Table 3). Findings relating to the HSC were converse to those found in the correlation table. Individuals clinically diagnosed with depression reported no statistically significant difference in hopelessness from individuals without a diagnosis (HSC: $F_{1,19} = 0.73$, $P = 0.40$).

The Future sub-scale of the CTI-C was examined to further explore the finding that the measure of hopelessness was not associated with clinical depression. The Future sub-scale of the CTI-C measures negative views about the future, a similar construct to hopelessness. The CTI-C Future sub-scale possessed adequate internal consistency (alpha = 0.71) and was significantly correlated with all other measures. When added to the MANOVA, similar to the HSC, it did not significantly differ between the two groups ($F_{1,19} = 2.89$, $P = 0.10$).

### Discussion

The examination of cognitive variables associated with depression has received relatively little attention in the field of ID. In the current study we examined correlations between self-reported depressed mood and cognitive measures related to two cognitive theories of depression, automatic thoughts, cognitive triad, attributions, hopelessness and self-esteem. In addition, differences on these cognitive measures were examined between individuals clinically diagnosed with depression and a control group with no

<table>
<thead>
<tr>
<th>Measure</th>
<th>Control group ($n = 12$) Mean (SD)</th>
<th>Clinically depressed ($n = 12$) Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRDQ</td>
<td>45.7 (8.2)</td>
<td>64.4 (13.9)*</td>
</tr>
<tr>
<td>ATQ</td>
<td>44.5 (14.3)</td>
<td>67.4 (26.5)*</td>
</tr>
<tr>
<td>HSC</td>
<td>3.8 (1.9)</td>
<td>4.7 (2.8)</td>
</tr>
<tr>
<td>CASQ</td>
<td>7.5 (3.9)</td>
<td>3.9 (3.2)*</td>
</tr>
<tr>
<td>CTI-C</td>
<td>60.2 (9.2)</td>
<td>51.5 (8.0)*</td>
</tr>
<tr>
<td>PH-SCS</td>
<td>56.6 (7.2)</td>
<td>46.7 (10.8)*</td>
</tr>
</tbody>
</table>

SRDQ, Self-Report Depression Questionnaire; ATQ, Automatic Thoughts Questionnaire; HSC, Hopelessness Scale for Children; CASQ, Children’s Attributional Style Questionnaire; CTI-C, Cognitive Triad Inventory for Children; PH-SCS, Piers-Harris Self-Concept Scale for Children.

* $P < 0.05$ within MANOVA.
psychiatric diagnosis. Depressed mood in the current study was significantly correlated in the predicted direction with all measures of cognitive variables (\(|r| = 0.26–0.75\)). This replicates the findings of Nezu et al. (1995) that automatic thoughts and hopelessness were significantly correlated with depressed mood. In addition, four of six cognitive constructs possessed good or excellent internal consistency. The findings support the use of self-report measures of cognitive variables among individuals with ID and support the evaluation of cognitive theories of depression using these instruments.

Individuals diagnosed with major depression were found to significantly differ from the matched control group on all measures, except for the measure of hopelessness. These findings provide further support that the cognitive variables are associated with depressed mood and clinical depression in adults with ID. It should be noted that the current study interviewed individuals with ID living in the community who displayed an adequate receptive vocabulary as measured by an age equivalent of 5-0 years or greater. Thus, the current findings should not be generalized beyond this population. In addition, psychiatric diagnoses were obtained from clinical records, and were not independently verified for this study. Further research is encouraged to independently verify psychiatric diagnoses.

Alternative explanations could be provided for the current results; however, many are easily refuted. First, it could be argued that the strong association between the cognitive measures is because of item overlap. For example, ‘I am a failure’ overlapped on the CTI-C and the ATQ. In all, 10 questions overlapped among the measures which constituted almost 10% of the total. The PH-SCS and the SRDQ had seven overlapping items. However, when these items were removed from their correlation, the strength of the correlation actually increased. Also, the strongest correlation was between the SRDQ and ATQ which had only one overlapping item. Thus, it is not likely that overlapping items can explain the strong correlation between cognitive measures.

Second, it could be argued that the comparisons between the depressed and non-depressed group are inappropriate as scores on the measures by the depressed group were not markedly different from the rest of the group, and that the non-depressed group was not representative of the rest of the group. These two counter arguments can be easily refuted. Of the 12 individuals in the depressed sample, eight were prescribed antidepressant medication. This would account for the depressed sample having less extreme high scores. Of the 12 individuals in the matched non-depressed group, they did not differ statistically from the 49 individuals constituting the rest of the sample on the cognitive measures. Thus, the non-depressed group is representative of the rest of the sample. In addition, the non-depressed group contained individuals without clinical diagnoses whereas the rest of the sample contained 21 individuals with various psychiatric diagnoses, including bipolar disorder and dysthymia. As a result, it is not unexpected for the non-depressed group to have slightly lower scores on the cognitive measures.

The findings of the study have several implications for research. Self-report measures of depressed mood, automatic thoughts, cognitive triad and self-esteem are suitable instruments for assessing these cognitive constructs among individuals with ID and receptive vocabulary equivalent to a 5-year old. They were all found to have good to excellent internal consistency. These cognitive constructs can now be used to evaluate the development of depression predicted by the cognitive triad theory among individuals with ID. However, more psychometric evaluation is needed to assess self-report measures of attributions and hopelessness. Although these two measures were significantly correlated with other cognitive measures and depressed mood, they possessed poor internal consistency in the current study. This finding is not unexpected regarding the CASQ as it has not been found to possess good internal consistency among children (Nolen-Hoeksema et al. 1986). However, the HSC has been found to possess sound internal consistency in evaluations among children and adolescents with ID (Kazdin et al. 1986; Wehmeyer & Palmer 1998). In addition, the measures of hopelessness used in this study (HSC and CTI-future) did not differentiate the depressed and matched control group. This finding could reflect a difference in the role of future orientation in depressed mood for persons with ID. Further work is necessary before these instruments can be used readily to assess the hopelessness theory of depression in persons with ID.

The findings of the present study also have implications for the potential use of cognitive-behaviour therapy for individuals with ID and a receptive vocab-
The current study identified an area of inconsistency that requires further research. The measures of hopelessness used included the HSC, which has been successfully employed in a previous study (Nezu et al. 1995), and the CTI-future sub-scale. However, while the current study supports previous findings that hopelessness measures are correlated with depressed mood among adults with ID, it did not support previous findings that individuals clinically diagnosed with depression differed significantly from a matched control group on the two measures of hopelessness. In addition, the current study reveals that although the CTI-C possessed good internal consistency, the HSC had poor internal consistency. As neither measure of hopelessness differed between the groups with or without major depression, it cannot be concluded that this is a statistical artefact. The association between hopelessness and depressed mood among adults with ID bears further evaluation. As conceptualizing temporal events is a prerequisite for having a negative view of the future, assessment of this skill should be obtained in addition to assessments of verbal ability. It may be that future events are conceptualized differently relating to hopelessness.

As numerous cognitive variables connected with two theories have now been established to be associated with depression and depressed mood among adults with ID and adequate receptive vocabulary, further examination of the cognitive-behavioural treatments of depression are necessary. Before available treatments based on these cognitive theories can be applied to or modified for use with individuals with ID, it is still important first to ensure that the cognitive theories are valid for them. This requires an examination of the cognitive theories with this population.

The current study confirms and extends upon previous research regarding the relationship between cognitive variables and depression among adults with ID and ties these constructs to theories of depression. The findings further validate the use of cognitive-behavioural approaches with this dually diagnosed (ID and mental illness) population and encourage others to examine their application in psychotherapy.

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References


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