This is the published version:


Available from Deakin Research Online:

http://hdl.handle.net/10536/DRO/DU:30006176

Reproduced with the kind permissions of the copyright owner.

Copyright : 2006, Australian Psychological Society
Early Detection and Treatment of Depression in Adults with Mild/Moderate Intellectual Disability

Jane A. McGillivray (m McGillivray@deakin.edu.au)
Marita P. McCabe (maritam@deakin.edu.au)
School of Psychology
Deakin University, Burwood Victoria 3125 Australia

Abstract

Stage 1 of this study examined symptom presentation and risk factors for the development of depression in a sample of 151 adults with mild/moderate intellectual disability (ID). According to the IDI-II, 39.1% of participants evidenced symptoms of depression (2 severe, 14 moderate, 43 mild). Individuals with and without symptoms of depression differed significantly on levels of automatic thoughts, self-esteem and downward social comparison. Automatic negative thoughts, quality and frequency of social support, self-esteem and disruptive life events predicted depression scores, accounting for 58.1% of the variance. In stage two, a total of 34 participants completed a CBT treatment program designed for this population. In comparison to the 15 participants who comprised a waiting list control group, the treatment group showed improved levels of depression, more positive feelings about themselves, and lower levels of automatic negative thoughts. These changes were maintained at three months follow-up.

Introduction

It is now widely recognized that individuals with intellectual disability (ID) are vulnerable to depression and their risk appears to be in excess of that in the general population (Cooper, 1997; Meins, 1993). Major depression has been reported in one to five percent of individuals with ID (Cooper, 1996), with a review by Lowry (1998) indicating that as many as one in every ten people with ID may experience clinical depression at some stage. Furthermore, the significance of these findings is compounded by the likelihood that reports of prevalence are an underestimate due to difficulties associated with both detection and diagnosis (O'Brien, 2002).

Individuals with ID who are depressed may not attend, or receive appropriate assessment or treatment from medical or mental health practitioners. This neglect may arise, in part, from a lack of professional awareness and training (Lennox & Chaplin, 1995), with symptom recognition being overshadowed by the primary disability or overlooked because they present in an atypical form (Meins, 1995).

There has been some debate in research and clinical domains about whether it is best to use standard diagnostic criteria to assess depression in people with ID, or whether it is more appropriate to use behavioral criteria (Marston, Perry, & Roy, 1997) and/or informant ratings (Davis, Judd, & Herrman, 1997). The appropriateness of standard diagnostic criteria for use with people with mild/moderate ID, however, has been demonstrated in several studies (e.g., Tsiouros, Mann, Patti, & Sturme, 2003). It remains important to identify the prevalence of depression, the patterns of symptoms and the factors associated with their development in individuals with ID. An increased awareness of these patterns may result in an increase in the appropriate diagnosis of depressive disorders in this population. It may also serve to inform early intervention initiatives with individuals at risk and provide a foundation for the development of intervention programs.

Depression in people with ID has been linked with adverse psycho-social experiences including an elevated frequency of disruptive life events (Stavrunaki & Mintsoulis, 1997) and low levels of social support (Lusky & Benson, 2001). A number of cognitive factors such as negative automatic thoughts, self-reproach and feelings of hopelessness (Neru, Nezu, Rothenberg, Delfcarpini, & Grog, 1995), as well as negative social comparison and low self-esteem (Dagnan & Sandhu, 1999) have also been implicated. These findings suggest the need for further examination of the impact of social and cognitive factors on the development of depression in individuals with ID and for these factors to be addressed in the treatment provided for them.

Although cognitive behavioural intervention programs (CBT) for individuals with depression in the general population have received widespread affirmation, and cognitive approaches for individuals with mild ID have been endorsed (Dagnan & Chadwick, 1997), there is a paucity of research into the efficacy of CBT programs for the treatment of depression in this population.

The aims of the current study were: 1) to enhance understanding of the prevalence and presentation of depression and risk for depression in adults with mild/moderate ID; and 2) to evaluate the effectiveness of a CBT intervention program designed to reduce levels of depressed symptoms among people with mild/moderate ID.
Method

Participants
The sample consisted of 151 adults (83 males, 68 females) with mild/moderate ID. Participants ranged in age from 19 to 68 years of age ($M = 36.17$, $SD = 10.59$) and were recruited through vocational and supported employment services. Language and comprehension ability appropriate to participation in a basic interview were prerequisites to participation. A total of 34 participants (16 males, 18 females) completed the intervention program (mean age 34.05, $SD = 6.97$). Fifteen participants (6 males, 9 females) comprised a waiting-list control (mean age 39.80, $SD = 10.46$). Participants were selected on the basis of scores on the Beck Depression Inventory and included those with clinical depression, as well as those with symptoms indicating risk of developing depression. The mean BDI score was 15.95 ($SD = 4.33$) for the treatment group and 13.60 ($SD = 4.44$) for the control group.

Assessment Schedule

Beck Depression Inventory II (BDI-II) (Beck, 1996) - severity of depression, selection of statement (unmodified) that best represents mood over the last two weeks. Item 21 ‘Loss of interest in sex’ excluded.

Social Comparison Scale (SCS) (Allen & Gilbert, 1995, modified by Dagnan & Sundhu, 1999) - comparisons of social rank, social attractiveness, and acceptance by others.


Automatic Thoughts Questionnaire-Revised (ATQR) (Kendall & Hollon, 1987) - frequency of automatic negative statements about self.

The Social Readjustment Rating Scale (SRRS) (Holmes & Rahe, 1967) (modified) - frequency of significant life events during the past six months.

Interview for Social Support in Retarded Adults (ISS) (Meins, 1993) - modified to enable self-report of frequency (FSS) and quality (QSS) of social support.

Treatment Program

The CBT program was designed to be conducted in a two hour session per week over 5 weeks and focused on enhancing social skills, promoting participation in social activities, identifying and changing negative cognitions and somatic complaints. Participants were taught how to self-monitor their moods and thoughts, and were trained to self-reinforce adaptive behaviors. Emphasis was placed upon reshaping cognitive distortions and on developing a more positive interpretation of events. Techniques of modeling, role-play, and structured-feedback were used to develop these skills. A group format was deemed to be beneficial, as participants were able to practice skills with peers and operate within a social environment where trust and respect for others could be experienced.

Procedure

Individual assessments were undertaken in a private location at participating organizations. An assisted self-report format was used to guide participants through the assessment schedule and comprehension was monitored throughout the interview process.

The CBT program was delivered by a trained research fellow to a total of 34 participants in groups of 3-5 individuals. The program was initially delivered to 19 participants while 15 participants served as a waiting list control. At the conclusion of the program both groups were re-administered the assessment schedule. The 15 participants in the control group then participated in the intervention program, and were assessed again. Follow-up assessment was conducted 3 months following the conclusion of the program on the 18 participants who completed the program.

Results

According to the recommended cut-off scores for depressive symptoms in the normal population on the BDI-II, 39% of participants evidenced symptoms of depression (2 severe score 26-60; 14 moderate score 17-25; 43 mild score 11-16) and 92 participants (61%) were in the non-depressed/minimal depressed range (score 0-10). Because a major focus of this study was to identify individuals who evidenced symptoms indicating potential risk for depression, 2 cut-off points in the spread of scores on the BDI II enabled the identification of 3 groups (36.4% not depressed score 0-3; 31.8% 'at risk' score 4-11; and 31.8% depressed score 12 and above).

Frequency of Depressive Symptoms Table 1 shows the frequency of each of the self-reported depression symptoms included in the BDI-II for each group. The standard symptoms of depression were most prevalent in the diagnosed depression group. Similar symptoms were evident in the depressive symptoms group, although with a lower frequency. Compared to other symptoms, guilty feelings were more pronounced in the depressive symptoms group than the depressed group. Sadness, and also worthlessness and pessimism, were the symptoms that most distinguished these groups. Depression symptoms were infrequently reported among the non-depressed group.
Table 1: Percentage and rank order of each of the self-reported depressive symptoms according to group.

<table>
<thead>
<tr>
<th>BDI-II Depression Symptoms</th>
<th>Depressed (N = 48)</th>
<th>At Risk (N = 48)</th>
<th>Not Depressed (N = 55)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Rank</td>
<td>%</td>
</tr>
<tr>
<td>Sadness</td>
<td>85.5</td>
<td>1</td>
<td>33.3</td>
</tr>
<tr>
<td>Tiredness or fatigue</td>
<td>83.4</td>
<td>2</td>
<td>56.2</td>
</tr>
<tr>
<td>Agitation</td>
<td>73.0</td>
<td>3</td>
<td>45.9</td>
</tr>
<tr>
<td>Self-criticism</td>
<td>68.8</td>
<td>4</td>
<td>39.6</td>
</tr>
<tr>
<td>Crying</td>
<td>66.7</td>
<td>5</td>
<td>33.3</td>
</tr>
<tr>
<td>Loss of energy</td>
<td>66.7</td>
<td>5</td>
<td>35.4</td>
</tr>
<tr>
<td>Changed sleep pattern</td>
<td>64.6</td>
<td>6</td>
<td>39.6</td>
</tr>
<tr>
<td>Irritability</td>
<td>58.3</td>
<td>7</td>
<td>27.1</td>
</tr>
<tr>
<td>Loss of interest</td>
<td>58.3</td>
<td>7</td>
<td>27.1</td>
</tr>
<tr>
<td>Punishment feelings</td>
<td>56.3</td>
<td>8</td>
<td>25.1</td>
</tr>
<tr>
<td>Worthlessness</td>
<td>56.3</td>
<td>8</td>
<td>12.5</td>
</tr>
<tr>
<td>Past failure</td>
<td>54.2</td>
<td>9</td>
<td>39.6</td>
</tr>
<tr>
<td>Indecisiveness</td>
<td>54.2</td>
<td>9</td>
<td>29.1</td>
</tr>
<tr>
<td>Loss of pleasure</td>
<td>52.2</td>
<td>10</td>
<td>16.7</td>
</tr>
<tr>
<td>Concentration difficulty</td>
<td>50.0</td>
<td>11</td>
<td>33.3</td>
</tr>
<tr>
<td>Pessimism</td>
<td>47.9</td>
<td>12</td>
<td>4.2</td>
</tr>
<tr>
<td>Guilty feelings</td>
<td>43.8</td>
<td>13</td>
<td>43.8</td>
</tr>
<tr>
<td>Changes in appetite</td>
<td>41.7</td>
<td>14</td>
<td>27.1</td>
</tr>
<tr>
<td>Self-dislike</td>
<td>39.6</td>
<td>15</td>
<td>12.5</td>
</tr>
<tr>
<td>Suicidal thoughts</td>
<td>23.0</td>
<td>16</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Psychological Variables and Social Support
Multivariate analysis of variance (MANOVA) was used to determine the differences between participants in the three groups (depressed, depressive symptoms, non-depressed) on levels of self-esteem, social comparison, automatic thoughts, social readjustment, quality and frequency of perceived social support. A significant difference was found between the three groups on social comparison, $F(2,145) = 7.84, p < .001$, partial eta squared = .1; on levels of automatic thoughts, $F(2,145) = 5.3, p < .001$; on quality of social support, $F(2,145) = 3.13$, $p = .01$, partial eta squared = .30.

Univariate tests indicated that the depressed group had a significantly lower mean score on social comparison ($M = 9.13, SD = 1.4$) than the depressive symptoms group ($M = 9.90, SD = 1.15$) and the non-depressed group ($M = 9.96, SD = 1.01$). The depressed group also had significantly lower self-esteem ($M = 21.09, SD = 4.85$) than the depressive symptoms group ($M = 24.80, SD = 3.63$), who had significantly lower self esteem that the non-depressed group ($M = 27.20, SD = 3.07$). The depressed group thus viewed themselves less positively when comparing themselves to other people and had lower self-esteem than the depressive symptom group, who reported lower self-esteem than the non-depressed individuals. Univariate tests also indicated that the depressed group had a significantly higher mean score on automatic negative thoughts ($M = 7.87, SD = 3.49$) than the depressive symptoms group ($M = 4.02, SD = 3.29$), who in turn had a significantly higher mean score than the non-depressed group ($M = 1.87, SD = 1.92$). In comparison to the non-depressed group, the individuals in the diagnosed depression group and the symptoms group thus reported more automatic negative thoughts.

Predictors of Depression
Standard multiple regression analysis indicated that social comparison, self-esteem, automatic negative thoughts, social readjustment, and perceived quality and frequency of social support significantly predicted depression scores on the BDI-II, $F(6,142) = 32.75, p < .001$, accounting for 58.1 per cent of the variance. Automatic negative thoughts were found to have the greatest significant impact on depression scores, ($\beta = .55$), followed by quality of social support ($\beta = .22$), frequency of social support ($\beta = .31$), self-esteem ($\beta = .18$), and social readjustment ($\beta = .14$).

Impact of Treatment Program
A multivariate analysis of variance was performed to determine differences between the intervention and the control groups. The dependent variables were scores on the BDI-II, SCS, RSES, and ATQ-R. The independent variable consisted of a single factor with five levels (see Table 2), with data from both groups included in the pre-post intervention analysis.
Table 2: Means and Standard Deviations on the Beck Depression Inventory (BDI-II), Social Comparison Scale (SCS), Rosenberg Self-Esteem Scale (RSES), and Automatic Thoughts Questionnaire (ATQ-R).

| Variable | Pretest | | | Post-test | | | Follow-up | |
|----------|---------|---------|---------|----------|---------|---------|----------|
|          | Treatment | Control | Treatment | Control | Treatment | |
|          | n = 34 | n = 15 | n = 34 | n = 15 | n = 18 | |
| BDI      | 14.56 | 4.51 | 13.60 | 4.44 | 5.71 | 4.54 | 12.80 | 4.23 | 5.39 | 2.77 |
| SCS      | 9.37 | 1.22 | 8.60 | 1.21 | 9.93 | 1.17 | 8.60 | 1.13 | 9.89 | 1.13 |
| ATQ-R    | 7.03 | 3.36 | 7.40 | 3.56 | 4.15 | 3.60 | 6.87 | 3.58 | 2.44 | 2.06 |

There was a statistically significant difference between the groups at the three times of assessment on the combined dependent variables: $F(24, 371) = 4.42, p < .001$, Wilks' Lambda $= .42$, partial eta squared $= .20$.

Using a Bonferroni adjusted alpha level of .008, the following variables reached statistical significance: depression $F(4, 111) = 28.00, p < .001$, partial eta squared $= .85$; social comparison, $F(4, 111) = 5.13, p < .001$, partial eta squared $= .16$; and frequency of negative automatic thoughts $F(4, 111) = 8.84, p < .001$, partial eta squared $= .24$. Post hoc comparisons using the Tukey HSD test indicated that there were no significant differences between the treatment and the control groups at pretest on any of the variables.

After completion of the treatment program, there was a significant reduction in depression scores ($M = 14.56$, $SD = 4.51$ at pre-test to $M = 5.71$, $SD = 4.54$ at post-test) and frequency of negative automatic thoughts ($M = 7.03$, $SD = 3.36$ at pre-test to $M = 4.15$, $SD = 3.60$ at post-test). The mean score of the treatment group at post-test on social comparison ($M = 9.93$, $SD = 1.17$) was significantly higher than the control group ($M = 8.80$, $SD = 1.13$), indicating that those who participated in the intervention program viewed themselves more positively when comparing themselves to others, than those who were on the waiting list. There were no significant differences on any of the variables for the treatment group between post-test and follow-up, suggesting that the impact of the intervention was sustained over time.

**Discussion**

This study identified a 39.1% prevalence rate of depression among community-based individuals with mild/moderate ID according to the recommended cut-off scores for the normal population on the BDI-II. Examination of the specific symptoms of depression confirms that individuals with mild/moderate ID experience symptoms in common with standard diagnostic criteria. Symptoms were similar, although less frequent in the individuals deemed at risk for depression. Sadness, worthlessness and pessimism were much more common in these individuals who met the criteria for depression, while sadness, self-criticism, loss of energy, crying and tiredness were uncommon in the non-depressed group. These symptoms may be the most accurate indicators of depression or risk for depression in people with ID.

Negative automatic thoughts, social comparison and self-esteem appear to be characteristics that particularly distinguish individuals with ID who are at risk or who are depressed, from those who are not depressed. The way in which these individuals view themselves in comparison to others, their notions of identity and self-worth, and their negative thinking may be key factors in whether or not they become depressed.

This study further demonstrated that depression among people with mild/moderate ID can be predicted by the frequency of automatic thoughts, quality and frequency of social support, self-esteem and number of disruptive life events (58.1% of the variance). The impact of life events suggests that people with ID may not be mentally or emotionally equipped to manage change or unexpected occurrences in their lives. The development of strategies to help people with ID better cope with change in their lives may protect them against the development of depression. Future research needs to explore this proposal further.

The impact of quality of social support on whether or not a person with ID was likely to become depressed emphasizes the importance of people with ID feeling emotionally supported and connected to others. There is clearly a need for more research to identify the particular aspects of social relationships which may serve to decrease the risk of depression in individuals with ID.

Although limited by sample size, the finding that participation in the group CBT treatment program had a significant positive impact on depressive symptoms is encouraging. Increased social comparison scores and decreased frequency of automatic negative thoughts in comparison to the control group suggests that these may be key variables in the treatment program. Clearly this approach needs to be more systematically evaluated with larger samples and over longer periods of time. Further, the relative effectiveness of this program for
people with major depression as opposed to those with depressive symptoms needs to be determined, as does the relationship between level of ID and benefit.

Several recommendations for practice arise from this study. People with ID should be routinely screened for the presence of depression, and its risk factors. Treatments need to target the factors related to depression in this population and include cognitive behavioral approaches. Because many people with ID do not regularly visit medical practitioners or mental health services, it would be desirable for general staff and other health care providers who are located in community settings providing services to individuals with ID to receive training in the early identification of depression and in the implementation of prevention and intervention programs. We are currently evaluating a manualized version of the program designed for delivery by general staff in disability agencies.

Acknowledgements

We wish to sincerely thank the beyondblue Victorian Centre of Excellence in Depression and Related Disorders for funding this research.

References


Do Antidepressants have an Impact on the Course of Inflammatory Bowel Disease: South Australian Gastroenterologists’ Perspectives

Antonina A. Mikocka-Walus (antonina.mikockawalus@adelaide.edu.au)
School of Psychology and Discipline of General Practice
University of Adelaide, Adelaide, SA 5005 Australia

Deborah A. Turnbull (deborah.turnbull@adelaide.edu.au)
School of Psychology
University of Adelaide, Adelaide, SA 5005 Australia

Nicole T. Moulding (nicole.moulding@adelaide.edu.au)
Discipline of General Practice
University of Adelaide, Adelaide, SA 5005 Australia

Jane M. Andrews (jane.andrews@rgh.sa.gov.au)

Gerald J. Holtmann (gholtman@mail.rabh.sa.gov.au)
Department of Gastroenterology, Hepatology and General Medicine
Royal Adelaide Hospital, Adelaide, SA 5005 Australia

Abstract

Interest in psychological factors in patients with inflammatory bowel disease (IBD) has increased in recent years. Some investigators have proposed that treating psychological co-morbidities with antidepressants might be helpful to control disease activity. As yet, research exploring gastroenterologists’ attitudes to and experiences with using antidepressants in IBD patients has not been undertaken. We conducted semi-structured interviews with 18 South Australian gastroenterologists and used content analysis to examine their responses. Most gastroenterologists had treated IBD patients with antidepressants for pain, depression and/or anxiety, and insomnia. Antidepressants were reported to be useful in improving psychiatric well-being, quality of life, and self-management of the disease by patients. However, 90% of gastroenterologists had not observed any affect of antidepressants on inflammatory activity in the gastrointestinal tract. The collected data may contribute to the design of further studies examining the efficacy of antidepressants in IBD patients.

Introduction

Inflammatory Bowel Disease (IBD) is a term used to address chronic and usually relapsing disorders of the gastrointestinal tract that are caused by an inappropriate immune response and characterized by inflammatory changes of the gut wall. The common examples of IBD are Crohn’s Disease (CD) and Ulcerative Colitis (UC). The prevalence of IBD has been estimated at 43,000 in Australia (Australian Crohn’s and Colitis Association, 2005).

As a consequence of the disease and the side effects of medication, IBD patients often suffer from psychological disorders that may affect their response to standard treatment (Mittermaier, Dejaco, Waldhoer, Oefflerbauer-Ernst, Miethler, Beier, Tillinger, Gogl & Moser, 2004). Patients who are diagnosed with both IBD and psychological disorders have been noted to have lower quality of life and more frequent relapses of the disease (Mittermaier et al., 2004; Walker, Gelfand, Gelfand, Creed, & Kanton, 1996). In addition to psychological disorders, IBD is often associated with Irritable Bowel Syndrome (IBS), a chronic relapsing condition in which bowel habits are altered with absence of any mechanical, biochemical and inflammatory changes in the gastrointestinal tract (Mertz, 2003). According to researchers, 42% - 62% of CD patients and 33% of UC patients in remission suffer from IBS (Barrott, Kalantzis, Polymeros, & Forbes, 2005; Minderhoud, Oldenburg, Wijmsbeek, van Berge Henegouwen, & Smout, 2004; Simren, Axelsson, Gillberg, Abrahamsson, Svedlund, & Bjorckson, 2002). These patients’ quality of life and psychosocial well-being are impaired regardless of whether IBD is active or quiescent (Tanaka & Kazuma, 2005). Moreover, as many as 93% of patients with IBS have a lifetime history of some psychiatric disorder (Walker, Roy-Byrne, Katon, Li, Amos, & Jinanek, 1990). Anxiety and depression appearing in IBD patients may be therefore partly explained by co-existent IBS.

For about 30 years, researchers have examined the effectiveness of various treatments for psychological disorders in IBD patients. Studies reveal that different types of psychotherapy are largely ineffective in treating psychological disturbances in IBD patients (Jantschek, Zeit, Pritsch, Wirsching, Klor, Studt, Rusenack, Deter, Riecken, Feiereis, & Keller, 1998; Keller, Pritsch, Von Wiedersheim, Scheib, Osborn, Balck, , 2004; Maurder & Esplin, 2001; Mussell,