

Social comparison, self-esteem and depression in people with intellectual disability

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Abstract

The present study explores the relationship between social comparison processes, self-esteem and depression in people with intellectual disability. Forty-three people with mild and moderate intellectual disability completed adapted measures of self-esteem and social comparison. The social comparison scale offers subscale scores on achievement, social attractiveness and group belonging dimensions. The self-esteem scale offers subscale scores for positive and negative self-esteem. A significant positive correlation was found between positive self-esteem and social comparison on the achievement dimension. Depression was significantly negatively correlated with social comparison on the social attractiveness and group belonging dimensions, and with positive self-esteem. Regression analysis showed that depression was significantly and independently predicted only by social comparison on the social attractiveness dimension. The present authors conclude that social comparison is associated with self-esteem and depression in people with intellectual disability in the same way as it is for people without intellectual disability. Further exploration of social comparison process in people with intellectual disability may inform

cognitive behavioural interventions for this group of people.

Keywords depression, self-esteem, social comparison

Introduction

A growing number of studies have shown that the social and cognitive processes which mediate depression in people who do not have intellectual disability also mediate depression in people with intellectual disability. For example, Reiss & Benson (1984, 1985) found that depression in people with mild intellectual disability was associated with low levels of social support. Benson & Ivins (1992) found that depression was highly correlated with negative 'self-concept'. It has also been shown that depression is correlated with the frequency of negative automatic thoughts and feelings of hopelessness in people with mild intellectual disability (Nezu *et al.* 1995). A further cognitive process which has been shown to mediate depression in people without intellectual disability is social comparison (Swallow & Kuiper 1988). This is the process by which we evaluate ourselves through comparison to others (Festinger 1954). Social comparison is seen as an active process. Whilst we are motivated to evaluate ourselves, negative

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information is threatening to our self-esteem, and there is an established relationship between negative social comparison and psychological problems (e.g. Allen & Gilbert 1995; Swallow & Kuiper 1988). This theory has particular relevance to the self-construction and psychological health of people with intellectual disability.

A number of factors have been identified which serve to buffer the effects of negative social comparisons (Swallow & Kuiper 1988). A loss of role or a negative comparison may be more likely to result in a significant impact upon self-esteem when it occurs in an area of a person's life which is important to him or her, and when he or she has no other source of worth from alternative roles (Oatley & Boulton 1985; Champion & Power 1995). Thus, possession of a wide range of roles and attributes which serve as sources of self-worth, a feature labelled 'psychological complexity' by Linville (1987), will act as a buffer against the effect of negative social comparison. Certain dimensions have also been identified as of particular importance in social comparison. From an evolutionary and cognitive perspective, Allen & Gilbert (1995) suggested that achievement/rank, social attractiveness and group belonging dimensions are key dimensions for social comparison. People with intellectual disability may be less likely to have opportunities to develop a wide range of roles and valued attributes, and therefore, may be less able to buffer against the effects of negative social comparisons.

Social comparison processes have been demonstrated in people with intellectual disability. Under certain situations, we may actively choose comparisons to ensure a positive outcome through self-enhancement or to avoid shame (Suls & Wills 1981). 'Downward comparison' may involve comparing ourselves to people who are known to be inferior on the comparison dimension (Wills 1981). Downward comparison may also involve denigrating peers or denying membership of a devalued group in order to maintain self-esteem. An example of this was presented by Gibbons (1985), who asked people with an intellectual disability to rate the social desirability of another person on the basis of a photograph. If the person was described as someone with an intellectual disability, he or she was rated as less socially desirable than if the person

was described as someone without intellectual disability. Gibbons (1985) suggested that participants were maintaining their own self-esteem by disassociating themselves from the stigma attached to having intellectual disability, and thus, were making a downward comparison with their peer group. Szivos-Bach (1993) asked people with an intellectual disability to complete a self-esteem scale for themselves, for three comparison others and for their 'ideal self'. The comparison others were their best friend with an intellectual disability on the college course which they were attending, their favourite sibling and a person who did not have an intellectual disability (participants tended to chose neighbours, relatives or professionals). The highest 'self-esteem' score was given to 'ideal self', followed by the person who did not have intellectual disability, the participant's rating of themselves, their favourite sibling and their best friend on the college course which they were attending. Szivos-Bach (1993) interpreted the results as suggesting 'a slight tendency to downward comparison' to other individuals with intellectual disability. She found no differences in these comparisons dependent upon the level of integration of the day setting which the participants attended.

People with intellectual disability may have a restricted range of roles available to them because of restriction of opportunity based upon low expectations of their ability, and thus, the opportunity to develop a robust psychological complexity may be limited. In some more integrated settings, the opportunity to make downward comparisons may be also be limited. Thus, for people with intellectual disability, negative social comparisons may be more likely, and because of an absence of protective factors, negative comparisons may be more likely to have a significant impact on their self-esteem. Although social comparison has been demonstrated in people with intellectual disability, its impact on self-esteem and depression has not been demonstrated for this group. The present study aimed: (1) to develop scales suitable for assessing social comparison and self-esteem in people with intellectual disability; and (2) to examine the relationship of social comparison with self esteem and depression in people with intellectual disability.

Subjects and methods

Participants

Forty-seven people who attended four adult training centres (ATCs) in the West-Midlands, UK, were interviewed. Three were unable to complete some of the measures because of severe visual impairment and one chose not to complete all of the questionnaires, giving a total of 43 participants. The 43 subjects consisted of 18 (41.9%) women and 25 (58.1%) men with a mean age (\pm SD) of 35.1 ± 10.2 years. The short form of the British Picture Vocabulary Scale (BPVS; Dunn *et al.* 1982) was completed for all participants as a measure of receptive language ability. The group had a mean BPVS: Short Form raw score of 16.6 ± 4.4 (range = 6–28). All participants were within the first and second percentile for standardized BPVS scores; this indicated that all participants function within the intellectual disability range. At the time of the present study, 24 (55.8%) of the participants were living with their family, 12 (27.9%) in a group home, three (6.9%) independently and two (4.6%) with a foster family; this information was not available for two (4.6%) people.

Procedure

Staff from each ATC were asked to identify individuals whom they considered would have sufficient verbal ability to take part in the present study. Those clients who agreed were interviewed at the ATC.

Measures

- 1 British Picture Vocabulary Scale: Short Form (BPVS-SF; Dunn *et al.* 1982). This scale provides a measure of the individual's receptive vocabulary. The participant is shown a card which contains four pictures and is required to point to the picture which best corresponds to a given word. As the test continues, the words increase in difficulty.
- 2 Zung Depression Scale (Zung 1965): This is a 20-item self-report scale which has been used in previous studies with people with an intellectual disability (e.g. Kazdin *et al.* 1983; Reiss Lindsay *et al.* 1994). When used with people with

intellectual disability, the original four-point response scale has been adapted into a 'yes/no' response format (e.g. Kazdin *et al.* 1983). A further recommendation has been to remove the item, 'I still enjoy sex', leaving a 19-item scale (Reiss & Benson 1985). This format was used in the present study. Higher scores on this scale indicate more symptoms of depression, but do not suggest that any participants would receive a clinical diagnoses of major depressive episode.

- 3 Rosenberg Self-Esteem Scale (Rosenberg *et al.* 1989). The self-esteem measure adapted for use in the present study was the six-item version of the original scale (Rosenberg 1982). The wording was simplified whilst retaining the original meaning of each item. The modified items in the scale were as follows (wording of the original scale is given in brackets): (1) 'I feel that I am a good person, as good as others' ('I feel that I'm a person of worth, at least on an equal plane with others'); (2) 'I feel that I have a lot of good qualities' ('I feel I have a number of good qualities'); (3) 'I am able to do things as well as most other people' (same as original); (4) 'I feel I haven't done anything worthwhile' ('I feel I do not have much to be proud of'); (5) 'I like myself' ('I take a positive attitude toward myself'); and (6) 'At times I think I am no good at all' (same as original). Each item was presented in large print on a single, landscape-format A4 page with blocks of increasing size to act as visual cues alongside the original written response categories ('never true', 'hardly ever true', 'sometimes true', 'often true' and 'always true'), to indicate the increasing magnitude of the response.
- 4 Social Comparison Scale (Gilbert & Allen 1994; Allen & Gilbert 1995). This measure presents participants with an incomplete sentence ('When I am with other people I generally feel') followed by a series of bipolar constructs (inferior/superior, less competent/more competent, less likeable/more likeable, less reserved/more reserved, left out/accepted and different/same). The scale assess the individual's comparison of self to others with respect to 'rank and achievement' (inferior and competent), 'social attractiveness' (likeable, reserved and left out) and perceived group

membership (different). The wording of the scale was simplified whilst retaining the original meaning of each item. The adapted versions of the constructs are: worse than other people/better than other people, not as good at things/better at things, less friendly/more friendly, less shy/more shy, on your own/with other people and different/same. The meaning of the items was retained sufficiently to retain the intended achievement, social attractiveness and group belonging dimensions. The original 10-point response scale was replaced by a 12.5 cm line used as a visual analogue scale; the scale was divided into five segments, each measuring 2.5 cm, for scoring. This has been shown to be a reliable response format for this population (Dagnan & Ruddick 1995). Each item was presented in large print on a single, landscape-format A4 page.

Results

Psychometric results

The adaptation of the Rosenberg Self-Esteem Scale and the social comparison scale have not previously been reported. Thus, these were subjected to a tentative psychometric analysis.

The factor analysis of the Self-Esteem Scale is shown in Table 1. The scale was subjected to a principle components factor analysis followed by a varimax rotation. The factor analysis produces a two-factor structure: the first factor contains the four positive self-esteem items and accounts for 35.5% of the total variance; and the second factor contains the two negative self-esteem items and accounts for 23.2% of the total variance. Item-total correlations for the self-esteem scale are shown in Table 1 and the scale has a mean item total correlation of 0.34 (range = 0.24–0.48). The scale has an alpha value of 0.62.

The factor analysis of the social comparison scale is shown in Table 2. The scale was subjected to a principle components factor analysis followed by a varimax rotation. The factor analysis produces a two-factor structure; the first factor contains the social attractiveness items and accounts for 34.6% of the total variance; and the second factor contains both achievement items and the group belonging item, and accounts for 23.4% of the total variance. The item-total correlations for the full scale are shown in Table 2, the scale has a mean item-total correlation of 0.28 (range = 0.01–0.47). The scale has an alpha value of 0.56. Item three (less friendly/more friendly) also loads highly but negatively on the second factor.

Table 1 Psychometric data for the Self-Esteem Scale

Scale items	Factor 1	Factor 2	Item-total correlations
I feel that I am a good person, as good as others	0.72	-0.01	0.34
I feel that I have a lot of good qualities	0.76	-0.03	0.37
I am able to do things as well as most other people	0.72	0.24	0.48
I feel I haven't done anything worthwhile	-0.01	0.86	0.24
I like myself	0.65	0.03	0.31
I feel I am no good at all	0.10	0.82	0.31

Table 2 Psychometric data for the Social Comparison Scale

Scale items	Factor 1	Factor 2	Item-total correlations
Worse than other people/better than other people	0.79	0.21	0.42
Not as good at things/better at things	0.73	0.04	0.26
Less friendly/more friendly	-0.41	0.76	0.01
Less shy/more shy	0.51	0.55	0.44
On your own/with other people	0.22	0.81	0.47
Different/same	0.51	-0.08	0.12

Item-total correlations within the full scale for items 3 and 6 are poor. To explore the reasons for this, the two scales suggested by the factor analysis were each subjected to a reliability analysis. The item-total correlations for the three social attractiveness items were all above 0.35; however, for the scale indicated in factor two (i.e. the two achievement items and the group belonging item), the group belonging item has a item-total correlation of 0.12. This would seem to indicate that the group belonging item is less well sited with the achievement items than suggested by the factor analysis. Given this analysis, the present authors continue to use the three subscales suggested by Gilbert and Allen (1994) theoretical account of social comparison.

The nine people interviewed twice for reliability purposes were four men and five women who had a mean age (\pm SD) of 37.1 ± 8.6 years and had a mean (\pm SD) BPVS-SF raw score of 16.1 ± 2.7 . The test-retest data show a Pearson's r correlation of 0.68 for the Adapted Rosenberg Self-Esteem Scale, 0.75 for the Adapted Zung Depression Scale and 0.84 for the full Social Comparison Scale. The social comparison subscales show a Pearson r correlation of 0.71 for the achievement subscale, 0.58 for the group comparison subscale and 0.45 for the social attractiveness subscale.

Analysis of the relationship between self-esteem, social comparison and depression

The mean scores for age, the BPVS, depression, self-esteem scales and social comparison subscales

are given in Table 3. Independent t -tests showed no statistically significant differences on any questionnaire scores for groups based on gender. A one-way analysis of variance (anova) showed no statistically significant difference on any questionnaire scores for groups based on type of accommodation or ATC attended.

Table 4 shows the Pearson's product-moment correlations between age, the BPVS, depression, positive and negative self-esteem, and the three social comparison scale scores. Depression was significantly negatively correlated with positive self-esteem and social comparison on the group belonging dimensions and social attractiveness dimensions. Positive self-esteem was positively correlated with social comparison on the achievement/rank dimension. Correlations were also calculated for the total self-esteem and social comparison scales. Total self-esteem was significantly correlated with the total social comparison score ($r = 0.34$, $P < 0.05$) and depression ($r = -0.39$, $P < 0.01$). Total social comparison score was significantly associated with depression ($r = -0.50$, $P < 0.001$). There was no significant correlation between either total self-esteem or total social comparison scores and age or BPVS score.

Further analysis

The relationship between social comparison, self-esteem and depression can be examined further by using regression analysis. This helps the interpretation of which of the social comparison and

Table 3 Means and standard deviation scores for depression, self-esteem and social comparison

Scale	Mean	SD
Age	35.06	10.17
British Picture Vocabulary Scale	16.63	4.43
Rosenberg Self-Esteem Scale:		
total score	23.44	3.99
positive self-esteem	17.37	2.96
negative self-esteem	5.95	2.22
Zung Depression Scale	6.49	3.50
Social Comparison Scale:		
total score	40.41	10.19
achievement subscale	13.73	5.31
social attractiveness subscale	19.91	7.07
group belongingness subscale	6.77	3.49

Table 4 Correlations between depression, self-esteem and social comparison: (BPVS) British Picture Vocabulary Scale

	Age	BPVS	Self-Esteem Scale		Zung Depression scale	Social Comparison Scale		
			Positive	Negative		Achievement	Social	Group
Age	–							
BPVS	–	0.22						
Self-Esteem Scale:								
positive	–	–0.20	0.01					
negative	–	0.11	0.13	0.22				
Zung Depression Scale	–	–0.05	–0.03	–0.41**	–0.22			
Social Comparison Scale:								
achievement	–	–0.04	0.04	0.57**	0.01	–0.29		
social	–	–0.02	0.18	0.05	0.08	–0.34*	0.16	
group	–	–0.02	–0.20	0.19	0.05	–0.34*	0.13	–0.07

* $P < 0.05$.** $P < 0.01$.**Table 5** Regression data for the regression of depression on to social comparison and self-esteem scores

Regression	B	Standard error of B	Beta	Significance
<i>Regression of depression onto social comparison and self-esteem</i>				
Social comparison:				
group belonging	–0.29	0.13	–0.29	0.04
social attractiveness	–0.16	0.06	–0.32	0.02
achievement	–0.02	0.12	0.03	0.88
Self-esteem:				
positive	–0.36	0.19	–0.30	0.07
negative	–0.22	0.21	–0.14	0.27

self-esteem scale scores are predictors of depression given that the scales are themselves intercorrelated. Thus, a single regression analysis was performed in which depression was regressed onto the scores from the two self-esteem scales and the social comparison scales. Table 5 shows the regression scores for all variables from this analysis. This shows that the social comparison subscales for social attractiveness and group belonging are the only significant independent predictors of depression. The model presented in Table 5 has an $F(5,35)$ of 4.33 ($P < 0.005$); the multiple R for the model is 0.61 and the adjusted $R^2 = 0.28$.

Discussion

The present study examined the relationship between depression, self-esteem and social

comparison processes in people with intellectual disability. The results show that positive self-esteem and achievement dimension social comparison scores are positively associated. Positive self-esteem, and social comparison on the social attractiveness and group belonging dimensions are each negatively related to depression. Total social comparison and self-esteem scores are also both negatively associated with depression. These results are generally consistent with those obtained for people without intellectual disability (Swallow & Kuiper 1988), and show that self-esteem and social comparison are associated with depression for people with intellectual disability. These cognitive processes have not previously been shown to be related to depression in people with intellectual disability.

The self-esteem and social comparison scales presented in the present paper were adapted from

existing scales for self-esteem and social comparison. The present authors carried out a tentative psychometric analysis. The number of subjects was relatively small for factor analysis; however, two basic criteria for this type of analysis are reached for both scales: there are 20 subjects for each factor obtained and three subjects for each scale item (Kline 1995). The scales appear to have reasonable concurrent validity as shown by their predicted interrelationships within the model for depression. The self-esteem scale has a good internal reliability and a factor structure similar to that predicted by Rosenberg's theoretical model of self-esteem. The social comparison scale also has a psychometric structure similar to that suggested by Gilbert & Allen (1994).

The use of social comparison as a concept to explain the psychological health of people with intellectual disability is important. The stigmatized and deviant (Goffman 1968) status of people with intellectual disability may be viewed from a social constructional perspective. Goffman (1968) described the effects of primary deviance. In primary deviance, people recognize that they are devalued and accept that evaluation. Negative social comparison may be the psychological presentation of this social process and may offer a psychological perspective through which to understand many of the social contexts of the lives of people with intellectual disability. For example, social comparison could offer a theoretical structure from within which to consider some of the psychological effects of integration and segregation.

The relationship between self-esteem and depression was further explored using regression analysis. The regression analyses showed that social comparison on the social attractiveness and group belonging dimensions are the only significant independent predictors of depression. A previous use of these social comparison dimensions with a clinical group of people without intellectual disability (Allen & Gilbert 1995) showed that social attractiveness and achievement were better predictors of psychopathology than group belonging. However, belonging was a significant predictor of psychopathology in a student population group. In general, these results support the theoretical importance of social comparison processes in

predicting depression. However, different comparison dimensions may have different values for different social groups. It appears that social attractiveness and group belonging may be more important in directly predicting depression in people with intellectual disability, although other factors contribute to the overall regression model. However, caution needs to be exercised when considering the relative importance of self-esteem and social comparison since the operationalization of self-esteem in the Rosenberg scale includes items that which are clearly socially comparative in nature. Indeed, social comparison may also have an advantage over the self-esteem scale by being a more theoretically precise concept.

The present study has shown that processes which are related to depression in people without an intellectual disability are also related to depression in people with intellectual disability. The demonstration of the presence of such cognitive processes associated with low self-esteem, poor social comparison and depression is important since it suggests that cognitive therapy techniques which target such processes may be useful in the treatment of depression in people with intellectual disability (e.g. Dagnan & Chadwick 1997). Social comparison may be a particularly useful theoretical construct from which to formulate psychological distress in people with intellectual disability. It is both particularly relevant to the social context of the lives of people with disabilities and is an active process. Elements of the process, such as dimensions upon which people choose to compare themselves and people against which they compare themselves may be examined within therapy. Therapy may also target the value given to other roles and activities within a person's life to increase self-complexity which may act as a buffer against negative social comparisons (Linville 1987). Future research should investigate whether such interventions can be used to intervene in the process of social comparison for people with intellectual disability.

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