Stigma, social comparison and self - esteem in adults with an intellectual disability

Abstract

Background

The paper examines the perception of stigma in 43 adults with an intellectual disability, the relationship this has with their psychological wellbeing and whether the process of social comparison has a moderating effect on this relationship.

Materials & Method

A questionnaire based, within participant design was used. Participants completed three self-report measures of perception of stigma, self-esteem, and social comparison.

Results

Perception of stigma was found to be significantly related to negative social comparisons which in turn was significantly related to low self-esteem. No difference was found between social comparisons made with other service users and those made with people in the community. Social comparison was not found to have a moderating effect on the relationship between stigma and self-esteem.

Conclusion

This study provides support for the influence of the perception of stigma and social comparison on the self-concept of individuals with an intellectual disability

Keywords: intellectual disability, stigma, psychological distress, social comparison

Introduction

In his seminal text *Stigma: Notes on the Management of Spoiled Identity* (1963), Erving Goffman, defined stigma as an 'attribute that is deeply discrediting' (1963; p.3) which reduces the bearer 'from a whole and usual person to a tainted, discounted one' (1963; p.3). Unfortunately, many people with an intellectual disability experience both explicit stigmatisation, e.g. verbal insults (Jahoda *et al.*, 1988) and more subtle forms that place restrictions on their lives and lead to difficulties gaining employment or developing personal relationships (Beart *et al.*, 2005; Jahoda & Markova, 2004). Indeed the very terms that are used to describe someone with an intellectual disability often become terms of abuse or associated with negative connotations (Harris, 1995; Hastings & Remington, 1993). Research suggests that many people with an intellectual disability are aware of the stigma attached to the label itself (Craig *et al*., 2002; Dagnan & Waring, 2004) and that they may distance themselves from it in order to cope (Finlay & Lyons, 2000; Harris, 1995; Jahoda *et al.*, 1988).

Stigma and self-esteem

There is evidence that for people with an intellectual disability, as well as for other stigmatised groups, such stigmatisation can have a negative impact on their psychological wellbeing, lowering their self-esteem and affecting their mood (Abraham *et al.*, 2002; Dagnan & Waring, 2004; Szivos-Bach, 1993). Early work by Szivos (1991) with adolescents with an intellectual disability indicated that those who were most aware of being stigmatised had the lowest self-esteem. Abraham *et al.* (2002) also found a negative correlation between self-esteem and perceived stigma in

adults with an intellectual disability. Similarly, Dagnan and Waring (2004) noted a significant relationship between the negative evaluations people with an intellectual disability made about themselves and their scores on a measure of stigma perception. They concluded that core negative beliefs about the self are related to the extent to which people feel different (i.e. are aware of stigma) and suggested this may be a result of the group internalising the stigma they faced.

As Crocker & Major (1989) note, this reflects a conceptual model of the relationship between stigma and self-esteem whereby, those who are aware that they are viewed negatively by others because they belong to a stigmatised group, will incorporate these negative social attributions into their sense of self, resulting in lower self-esteem. After extensively reviewing the literature looking at the effect of social stigma, they conclude, however, that there is limited empirical evidence to suggest that members of stigmatised groups have consistently lower self-esteem than members of non-stigmatised groups and they argue that this is also the case in people with an intellectual disability. Similarly, other research has suggested that while individuals who perceive themselves to have an intellectual disability are more likely to have lower self-esteem than those who do not, they do not necessarily believe that having an intellectual disability is negative (Thomson & McKenzie, 2005). This suggests that it may not be having the label of intellectual disability per se that affects individuals' self-esteem but instead may be how they perceive themselves in comparison to others. This is consistent with research which indicates both that people with an intellectual disability engage in social comparisons and that social comparisons are important in the experience of stigmatisation (Craig *et al.*, 2002; Dagnan & Waring, 2004; Finlay & Lyons, 2000).

Social comparison theory, stigma and self-esteem

While self-esteem and social comparison overlap in some respects, with some measures of self-esteem having social comparison elements, (e.g. Adapted Rosenberg Self-Esteem Scale: Dagnan & Sandhu, 1999), the former refers to an overall positive sense of self-worth, value, self-respect and acceptance (Crocker & Major, 1989) while the latter is considered to be a specific psychosocial process which can influence the impact that being a member of a stigmatised group can have on self-esteem and other indicators of psychological wellbeing. The relationship between social comparison and self-esteem is not, however, straightforward, with different types of social comparison being argued to have differential impacts on self-esteem, as outlined below.

Social comparison theory (Festinger, 1954) argues that individuals have a drive to evaluate themselves and that if this cannot be done against objective measures then it will be done through comparison with others. Finlay and Lyons (2000) differentiated between lateral, downward and upward social comparisons. Lateral comparisons occur when the self is presented as the same as another person on some dimension and these are thought to be largely protective (Crocker & Major, 1989) although they may result in the group members failing to challenge their devalued status (Miller & Kaiser, 2001). Downward comparisons may increase the subjective wellbeing of individuals because the self is presented as occupying a more favourable position than less fortunate others (Wills, 1981). However, it has been suggested that downward comparisons can be detrimental because comparisons with the lower status group may highlight the possibility that their own situation could get worse (Buunk *et al.*, 1990).

Upward comparisons occur when others are viewed as being in a more favourable position. Miller and Kaiser (2001) suggest that these comparisons with higher status groups may motivate the stigmatised group to try to improve their status, although they may also expose individuals to negative self-comparisons.

Social comparison and people with an intellectual disability

Research into the social comparisons made by people with an intellectual disability suggests that they generally make lateral comparisons with those who are perceived as not having an intellectual disability and downward comparisons with their peers. Early work by Gibbons (1985) illustrated that people with an intellectual disability rated photographs of other individuals who were also identified as having an intellectual disability more negatively on dimensions of social desirability and attractiveness than those who were not. Gibbons (1985) argues this indicates a downward social comparison process towards other people with an intellectual disability. This was supported by Finlay and Lyons (2000) who found that participants with an intellectual disability tended to make both lateral and downward comparisons, viewing themselves as the same as those without an intellectual disability or more favourably than others with an intellectual disability. Similarly, young people with an intellectual disability tended to rate themselves more positively when asked to compare themselves to a peer with a more severe intellectual disability (Cooney *et al.*, 2006).

Jahoda and Markova (2004) also demonstrated that participants with an intellectual disability made downward social comparisons with their peers. All the participants in the study were aware of being stigmatised and therefore the downward comparisons

could have been a means of protecting themselves from the negative effects of stigmatisation. An early study by Szivos-Bach (1993) however, reported that the participants with an intellectual disability, who perceived the most stigma, saw themselves to be most inferior to individuals without an intellectual disability, indicating a link between sensitivity to stigmatisation and upward social comparisons.

Social Comparison and Self-Esteem

Studies, both with people with intellectual disabilities (MacMahon *et al.,* 2008) and with other populations (e.g. Allan & Gilbert, 1995), have shown that negative social comparisons are related to depression and psychopathology. Only one study was found which also included self-esteem as a factor. Dagnan and Sandhu (1999) investigated the relationship between social comparison, depression and self esteem in 43 adults with an intellectual disability. The authors found that the more negative the total social comparison score, the lower the reported total self-esteem and the higher the reported depression. The social comparison dimensions which were the most important in predicting depression were 'group belonging' and 'social attractiveness'. Unfortunately, however, this study failed to specify with whom the participants should compare themselves and it is, therefore, possible that the participants could have compared themselves to a wide variety of individuals with differing social status.

The relationship between stigma, social comparison and self-esteem

The research outlined above has shown that people with an intellectual disability experience stigma (Beart *et al.*, 2005; Hastings & Remmington, 1993). Perception of stigmatisation has been associated with lower self-esteem and psychopathology in

people with an intellectual disability and in other stigmatised groups (Abraham *et al.*, 2002; Dagnan & Waring, 2004; Szivos-Bach, 1993) although not everyone with an intellectual disability reports low levels of self-esteem. Crocker and Major (1989) conclude that there is little empirical support for a straightforward relationship between stigma and self-esteem and propose that the way individuals, including people with an intellectual disability, compare themselves to other social groups may influence their self-esteem and thereby serve to protect individuals from the negative effects of stigmatisation.

This suggests that social comparison could have a moderating effect on the relationship between perception of stigma and self-esteem. Dagnan and Sandhu (1999), also argue that social comparison is an important concept which influences the psychological wellbeing of people with an intellectual disability. They note that Goffman (1963) talks about the effects of primary deviance: when stigmatised individuals recognise that they are devalued and accept that evaluation. Dagnan and Sandhu (1999) propose that negative social comparison could be the psychological presentation of this social process.

This process of social comparison has been shown to be important in the experience of stigmatisation, is used by people with an intellectual disability (Craig *et al.*, 2002; Dagnan & Waring, 2004; Finlay & Lyons, 2000) and is suggested as playing a role in moderating the impact of stigmatisation on psychological wellbeing. There are, however, few studies that have investigated the relationships between social comparison, stigma and self esteem. The present study, therefore aims to: investigate whether the relationships previously found in the literature between social

comparison, perception of stigma, and self-esteem are supported for people with an intellectual disability; to examine the types of social comparison processes used by people with an intellectual disability in comparison with their peer group (other service users) and with the general population (people in the local community). A secondary aim is to explore whether social comparison has a moderating effect on the relationship between perceived stigma and self-esteem.

The specific hypotheses are that:

1 There will be a significant association between perception of stigma and self-esteem, i.e. the higher the perceived stigma, the lower the reported self-esteem.

2 There will be a significant association between perception of stigma and social comparison with both service users and people in the community, i.e. the higher the perceived stigma, the more negative social comparisons with both groups.

3 There will be a significant association between social comparison made with both service users and people in the community and self-esteem, i.e. the more negative social comparisons with both groups the lower the reported self-esteem.

4 There will be a significant difference in the social comparisons made with service users and with people in the community, i.e. social comparisons made with service users will be more positive than comparisons made with people in the community.

A secondary hypothesis is that social comparison will have a moderating effect on the relationship between perceived stigma and self-esteem.

Method

Power and sample size calculations

A review of the literature in this area indicated medium to large effect sizes. A sample size for correlations of 25 was required for a large effect size and 70 for a medium effect size, assuming a power of 0.80, $\alpha = 0.05$ (Clark-Carter, 2004)

Participants, ethics and informed consent

Following ethical approval for the study from the University of Edinburgh, participants were recruited from Adult Resource Centres in a local health board in Central Scotland. Staff were asked to identify which service users they felt would be able to comprehend and respond to the study materials. These individuals were subsequently asked if they would like to participate by their key workers. All potential participants were provided with verbal, written and pictorial information about the study and the areas it covered, and were given the opportunity to think about whether they wished to participate or not. Those who expressed interest in participating were invited to a consent interview. All participants had to be able to give informed consent to take part in the study. Any individuals experiencing mental illness or who were suffering from dementia were excluded.

Following consent being gained, the first author met with the participants to complete the measures. The participants were given three questionnaires exploring their perception of stigma, social comparisons and self-esteem.

Sixty-five people were identified as potential participants and 43 consented to participate. Of these, 25 (58%) were women and 18 (42%) were men. The group had a mean age of 40 years (SD = 12.7; range 20 - 66 years). At the time of the study, 34 (79%) lived in their family home, 6 (14%) lived in supported accommodation and 3 (7%) lived independently. In addition to their intellectual disability, 10 (23.8%) were noted as having a physical disability (e.g. cerebral palsy), a verbal disability (e.g. aphasia) or identifiable physical characteristics synonymous with a genetic disorder (e.g. Down's Syndrome). The group had a mean British Picture Vocabulary Scale (BPVS 2nd ed; Dunn *et al.*, 1997) raw score of 87.1 (SD = 26.9; range 36 - 168).

Measures

The Stigma Perception Questionnaire (Szivos, 1991; Szivos-Bach, 1993)

This measure was developed for use with individuals with an intellectual disability by Szivos (1991). It contains 10 items which assess participants' perceptions of their own stigmatisation, (e.g. *'people treat me like a child', 'I get teased or made fun of'*) and the participants were asked to rate how often the items occur using a five-point visual analogue scale. This consisted of drawn blocks of increasing size with the words 'nearly always', 'often', 'half the time', 'sometimes' and 'never' underneath them. These responses were assigned a score from 1 to 5 so that higher scores represented lower perception of stigma. Szivos-Bach (1993) indicates that participants should be encouraged to 'talk around' (p. 224) each item before deciding on a score in order to ensure more accurate responses. Cronbach's alpha coefficient for the full scale = 0.70 and mean item-total correlation for the scale = 0.36 (range 0.14 – 0.57).

Adapted Social Comparison Scale (Dagnan & Sandhu, 1999)

This scale was adapted for use with people with an intellectual disability and examines the way in which people with an intellectual disability evaluate themselves through comparison with others. Participants are presented with an incomplete sentence ('When I am with other people I generally feel') followed by six bipolar constructs comprising three dimensions: different/same (*group belonging*), worse than other people/better than other people, not as good at things/better at things (*rank and achievement),* less friendly/more friendly, more shy/less shy and on my own/with other people (*social attractiveness*). Responses are marked on a visual analogue scale, divided equally into 5 segments. Each participant was asked to point to where they thought they lay along this line for each construct. A score between 1 and 5 was assigned to each response on this basis. This has been shown to be a reliable response format for people with an intellectual disability (Dagnan & Ruddick, 1995).

The scale was adapted further for the purposes of this study by specifying a target comparison group. Participants were asked to complete the scale twice, firstly using the incomplete sentence 'When I am with other *service users,* I generally feel', then using the incomplete sentence 'When I am with other *people in 'name of city',* I generally feel'. The meanings of the labels 'service user' and 'people in 'name of city' were discussed with participants to ensure they had an understanding of who they were comparing themselves to. It was also emphasised that they were to compare themselves to people in general and not to anybody in particular. This distinction in target groups was made to allow an insight into whether the participants made different kinds of comparisons with their peer group than with the general

population. Cronbach's alpha coefficient for the full scale with service users = 0.71 and mean item-total correlation for the scale = 0.44 (range 0.11 – 0.63). Cronbach's alpha coefficient for the full scale with the community = 0.76 and mean item-total correlation for the scale = 0.50 (range 0.25 – 0.65).

Adapted Rosenberg Self-Esteem Scale (Dagnan & Sandhu, 1999)

This was also adapted for use with people with an intellectual disability and measures an individual's self-esteem on six items. The participant rates how true each item is, using a five-point visual analogue scale (with options ranging from never true to always true). These consisted of drawn blocks of increasing size with the words 'never true', 'hardly ever true', 'sometimes true', 'often true' and 'always true' underneath them. These responses were assigned a score from 1 to 5 so that higher scores represented a greater level of self-esteem. Dagnan and Sandhu (1999) carried out a factor analysis of the scale and found a two-factor structure. The first factor contains four *positive self-esteem* items and the second factor contains two *negative self-esteem* items and these two subscales were used in the present study. Cronbach's alpha coefficient for the full scale = 0.66 and mean item-total correlation for the scale = 0.40 (range 0.31 – 0.51).

Statistical analyses

Pearson's r correlations were calculated to examine relationships between the variables. A t-test was carried out to investigate the difference between social comparisons with other service users and with people in the community. Finally, regression analyses were calculated to examine the potential moderating effect of social comparison on the relationship between perception of stigma and self-esteem.

The results were analysed using SPSS version 14. The data showed no major deviations from normality, no systemic patterns to the residuals and the residuals fell within the 2.5 to -2.5 range indicating that there are no outliers (Tabachnick & Fidell, 2001). None of the variables had a correlation exceeding 0.7, which would have indicated multicollinearity (Tabachnick and Fidell, 2001) and the predictor variables in the analyses all had a relationship with the dependent variable which exceeded 0.3 (Pallant, 2005).

Results

Table 1 shows the means and standard deviations for each of the measures

INSERT TABLE 1 ABOUT HERE

No significant differences were found between gender and stigma, self-esteem or social comparison. No significant relationships were found between age or the BPVS raw score and stigma or self-esteem. On the social comparison measure, significant negative relationships were found between the BPVS raw score and the social comparison factor *achievement and rank* for both comparisons with service users ($r(41) = -.31$, $p<0.05$) and the community ($r(41) = -.39$, $p<0.05$). This finding indicates that as the BPVS score increased, i.e. as receptive vocabulary improved, then the participants' rating of how capable they saw themselves compared to others decreased.

The relationships between perception of stigma and self-esteem

The relationship between perception of stigma and self-esteem was investigated using Pearson product-moment correlation coefficient. There was a positive correlation between perception of stigma and reported self-esteem (*total score*) ($r= 0.41$, $p<0.01$). There was no significant relationship between the *positive* self-esteem factor and the total stigma score, however, there was a positive relationship between the *negative* self-esteem factor and perception of stigma ($r=0.45$, $p<0.01$).

The relationships between perception of stigma and social comparison with both the service users and people in the community

The relationship between perception of stigma and social comparison with service users and the community was investigated using Pearson product-moment correlation coefficient. The full correlation matrix can be seen in Table 2. Looking at social comparison with service users first, no significant relationships were found between perception of stigma and social comparison (*total score*) or any of the social comparison factors. Correlational analysis of the social comparison scores with people in the community revealed a positive association between perception of stigma and social comparison (*total score*) ($r=0.34$, $p<0.05$). There were also positive correlations between reported perception of stigma and the social comparison factors *social attractiveness* ($r= 0.35$, $p<0.05$) and *achievement and rank* ($r=0.34$, $p<0.05$).

The relationships between social comparisons made with both service users and people in the community and self-esteem

The relationship between self-esteem and social comparison with service users and the community was tested using Pearson product-moment correlation coefficient.

Comparison with other service users

Positive correlations were found between social comparison (*total score*) and the following: self-esteem (*total score*) ($r=0.43$, $p<0.01$), the *positive* ($r=0.37$, $p<0.05$) and the *negative* self-esteem factor ($r=0.31$, $p<0.05$). Further analysis of social comparisons with service users found that there were positive correlations between the social comparison factor *group belonging* and self-esteem (*total score*) ($r=0.34$, $p<0.05$) and the *positive* self-esteem factor ($r=0.32$, $p<0.05$). Positive correlations were also found between the social comparison factor *achievement and rank* and self-esteem (*total score*) ($r=0.4$, $p<0.01$) and the *positive* self-esteem factor ($r=0.42$, $p<0.01$).

Comparison with the community

Positive correlations were found between social comparison (*total score*) and self-esteem (*total score*) ($r=0.41$, $p<0.01$) and the *positive* self-esteem factor ($r=0.43$, $p<.01$). There were no significant relationships between social comparison (*total score*) and the *negative* self-esteem factor. Positive correlations were also found between the social comparison factor *social attractiveness* and self-esteem (*total score*) ($r=0.34$, $p<0.05$) and the *positive* self-esteem factor ($r=0.34$, $p<0.05$). Positive correlations were also found between the social comparison factor *achievement and rank* and self-esteem (*total score*) ($r=0.50$, $p<0.01$) and the *positive* self-esteem factor ($r=0.51$, $p<0.01$).

INSERT TABLE 2 ABOUT HERE

Differences in social comparisons

Paired-samples t-tests were conducted on total and subscale scores to determine if there was a difference in the social comparisons made with service users and people in the community. No statistically significant differences were found in the total scores or between the factor scores.

The moderating effect of social comparison on the relationship between perceived stigma and self-esteem.

The procedure for testing moderating relationships described by Holmbeck (1997) and Baron and Kenny (1986) was used. This procedure tests the existence of a moderating relationship via a multiple regression equation in which variables are regressed onto the target variable; in the present study this was self-esteem. First, the predictor variable (perception of stigma) is entered and then the variable hypothesised

to be a moderator is entered (social comparison). Finally, the product of the two variables is entered as an interaction term (perception of stigma x social comparison). The analysis was carried out twice, firstly using social comparison with service users (*total score*) as the moderating variable and secondly, using social comparison with the community (*total score*).

The results of the regression analysis using social comparison with service users (*total score*) are shown in Table 2. Model 1 was found to be significant ($F_{(2, 40)}$ =7.528, p<.01) and it accounted for 27% of the variance (R^2 = 0.273). Perception of stigma (β = 0.31, *t* = 2.21, p<0.05) and social comparison with service users (β = 0.34, *t* = 2.42, p<0.05) were shown to be making a significantly unique contribution to the equation, explaining 9% and 11% respectively of the total variance of self-esteem. However, in model 2, the interaction term was not significant (β = 2.80, *t* = 1.55, p = 0.13) and the addition of the interaction term failed significantly to improve the model ($F_{\text{change}\ (1, 39)}$ = 2.41, p = 0.13). The results indicate that social comparison with service users does not have a moderating effect on the relationship between stigma and self-esteem.

INSERT TABLE 3 ABOUT HERE

The results of the regression analysis using social comparison with the community (*total score*) are shown in Table 3. Model 1 was found to be significant ($F_{(2, 40)}$ = 6.712, p<.005) and it accounted for 25% (R^2 = 0.251) of the variance. Perception of stigma (β = 0.31, *t* = 2.11, p<0.05) and social comparison with service users (β = 0.31, *t* = 2.12, p<0.05) were shown to be making a significantly unique contribution to the equation, explaining 9% and 8% respectively of the total variance of self-esteem. However, in model 2, the interaction term was again non-significant (β = 1.55, *t* =

1.14, p = 0.25) and the addition of the interaction term failed to significantly improve the model ($F_{change\ (1,\ 39)}$ = 1.38, p = 0.25). The results indicate that social comparison with the community does not have a moderating effect on the relationship between stigma and self-esteem

INSERT TABLE 4 ABOUT HERE

Discussion

The relationship between the perception of stigma and self-esteem

The present study aimed to explore the relationships between perception of stigma, self esteem and social comparisons in people with an intellectual disability. It was found that greater perception of stigma was related to lower self-esteem. This is consistent with previous research by Abraham *et al.* (2002) and Szivos-Bach (1993), although in the present study only the *negative* self-esteem factor was found to be related to stigma. This suggests that participants are more likely to perceive stigma if they feel bad about themselves and vice versa. This relationship would be predicted by cognitive theory (Beck, 1967) which suggests that people with low self-esteem can be hypersensitive to negative feedback from others and may interpret ambiguous interactions negatively. Furthermore, individuals with a negative view of themselves who report feeling worthless may be more likely to recall negative stigmatising experiences (Hertel, 2004).

It is likely that there are multiple factors affecting the self-esteem of those who report more awareness of stigma. For example, it has been shown that social supports buffer against anxiety, depression (Reiss & Benson, 1985) and stigma (Todd, 2000), early social experiences impact on how individuals think and act (Zigler *et al.*, 2002), and

that those who have more experiences of failure may be more susceptible to psychological difficulties (Jahoda *et al.*, 2006).

The relationship between perception of stigma and social comparison

The perception of stigma was not shown to be related to social comparisons with other service users but was related to comparisons with the community, in particular on the dimensions of social attractiveness and capability. Whether participants saw themselves as belonging to the same group or not as people in the community was not related to their perception of stigma. This is consistent with the study by Dagnan and Waring (2004) which also found no relationship between perception of stigma and identifying with the other group, however, they did not find a relationship between perception of stigma and how capable the individuals perceived themselves to be. This difference may be due to the fact that Dagnan and Waring (2004) did not specify the target comparison group in their study.

Social comparison and self-esteem

The more negative the social comparisons with both the service user and community groups, the lower the reported self-esteem of the participants. Participants who reported feeling part of the same group as other service users and more able compared to them, also reported higher self-esteem. This suggests that in order for people with an intellectual disability to feel good about themselves, they need to see themselves not only as part of the group of people with an intellectual disability but as located at the more able end of that group. This finding is at odds with those of Finlay & Lyons (2000) and Jahoda *et al.* (1988) which suggested that people with an intellectual disability attempt to distance themselves from their peers. The concept of courtesy-

stigma, may also be relevant here. This is where those who share the same stigma provide moral support to each other (Forrester-Jones & Barnes, 2008), but try to distance themselves from this support when trying to integrate with non-stigmatised groups. The present study lends support to the view of Rapley (2004) that people with an intellectual disability do not necessarily reject the label of intellectual disability but rather deny the negative connotations that are associated with it.

Participants who rated themselves as more socially attractive and more capable compared to people in the community reported higher levels of self-esteem and in particular a more positive view of self. The extent to which the participants saw themselves as belonging to the same group as people in the community was not, however, related to their self-esteem. While correlation does not imply causation, this may indicate that people with an intellectual disability do not need to express an affinity with or sense of belonging to the community, to feel good about themselves.

The nature of social comparisons

Several previous studies have shown that people with an intellectual disability tend to make downward comparisons towards their peers (Cooney *et al.*, 2006; Craig *et al.*, 2002; Finlay & Lyons, 2000; Gibbons, 1985) and lateral comparisons with the general population (Craig *et al.*, 2002; Gibbons, 1985). The present study, however, found no significant differences between the social comparisons made between service users and the community, with the mean scores being at the more positive end of the scale for both. This may suggest that the social comparison measure was not sensitive enough to detect any differences, although it was sufficiently sensitive to illustrate differences in correlation patterns, for example between stigma and social

comparison, depending on the comparison group. It may also be that the participants generally felt positive about themselves irrespective of the comparison group.

Social comparison as a moderating variable on the relationship between perceived stigma and self-esteem.

A secondary aim of the study was to explore whether social comparison had a moderating effect between perceived stigma and self-esteem when examined for both the service user and community comparisons. That this was not found to be the case could indicate that social comparison and stigma work in different ways when they influence self-esteem. Both variables were shown to be predictive of self-esteem and both uniquely explained some of the variance of this factor. It is possible that stigma and social comparison are predicting different parts of the variance in self-esteem, which is why social comparison was not shown to moderate the influence of stigma. Alternatively, social comparison may have a moderating effect that was not detected in this sample due to a lack of sensitivity of the social comparison measure or insufficient power in the model. Holmbeck (1997) notes that significant moderator effects may be difficult to detect statistically, particularly in samples that are relatively homogeneous, because all the high and low values of the variables may not be represented. Indeed, theorised moderator effects are notoriously difficult to find (McClelland & Judd, 1993), despite often compelling grounds for expecting such effects.

It may also be that alternative explanatory models may better explain the relationship between stigma, social comparison and self-esteem, such as the schema models proposed by Beck *et al*. (1983). This work suggests that individuals with differing

schemas define themselves differently depending on whether the situation relates to interpersonal relationships or achievement related goals. These schemata have been found to influence social comparisons (Giordano *et al.*, 2000) and have been suggested as also being relevant for people with an intellectual disability (Dagnan and Waring, 2004).

Clinical implications

While the measure used in the present study does not provide an absolute score of high self-esteem, the mean scores on this measure indicated that the majority of the sample reported relatively high self-esteem. This indicates that self-esteem can be maintained despite facing frequent experiences of stigma (Jahoda *et al.*, 1988). It has been suggested that service providers could have a role in helping people with an intellectual disability overcome the negative aspects of their lives by promoting positive participation in the community (e.g. Abraham *et al.*, 2002; Craig *et al.*, 2002; Todd, 2000). The theory of 'psychological complexity' (Linville, 1987) proposes that when individuals hold a wide range of roles and aspects of the self that they value, then this 'complexity of self' will buffer against the effects of negative social comparison. Adult resource centres and supported employment services may provide opportunities for people with an intellectual disability to develop different roles and a range of social experiences, thereby adding to their resilience and improving their ability to withstand negative experiences.

A further role for service providers and carers could be to discuss issues of stigma or identity conflict with those they support. Todd (2000) argued that staff play a key role in buffering the experience of stigma from people with an intellectual disability,

although it is recognised that this can be both difficult and uncomfortable (Craig *et al.*, 2002) and that such discussions need to be undertaken with sensitivity with the aim of enhancing the individuals' self-worth (Jahoda *et al.*,1988). Services should also be aware that some individuals may attempt to distance themselves from the label of intellectual disability (Finlay & Lyons, 2000; Jahoda *et al*., 1988) as a protective mechanism (Thomson and McKenzie, 2005) because they are aware of the associated stigma (Craig *et al.*, 2002; Rapley *et al*., 1998; Szivos-Bach, 1993).

Study limitations

The present study had a number of limitations. While the broad inclusion criteria were designed to obtain a representative sample and the study achieved an acceptable response rate of 74%, the participants all attended a local adult resource centre. It is, therefore unclear to what extent the results can be generalised to individuals who operate in other community settings e.g. employment or college. Previous research by Jahoda *et al.* (1988) has indicated that being linked with an adult resource centre can itself be related to stigma. Consequently, it would be useful for further research to investigate the differences in perception of stigma and social comparison in adults with an intellectual disability in alternative community settings.

A potential influence is that of the visibility of the stigma that an individual carries (Goffman, 1963). This study recorded whether participants had a physical disability, verbal disorder or any physical characteristics synonymous with a genetic disorder (e.g. Down Syndrome). However, the impact of this 'visible' stigma was not investigated further due to the small numbers involved.

A further limitation arises in relation to the social comparisons that the participants were asked to make. Although attempts were made to ensure that the participants compared themselves to each comparison group in general, it is impossible to control for whether participants actually had someone specific in mind when making the comparisons. Cooney *et al.* (2006) question whether some of their participants acted 'defensively' when asked to compare themselves to a peer without a intellectual disability and instead chose an individual with whom they could compare themselves positively. Likewise, Finlay and Lyons (2000) found that when individuals made downward comparisons they chose groups comprised of people with more severe intellectual disabilities. It is, therefore, possible that the participants in the present study selected particular individuals to compare themselves with, rather than a general group of people.

In terms of limitations of the measures used, it is difficult to determine if the strong positive bias on the social comparison measure was due to genuinely positive comparisons with others, to the scale measuring a different concept or to the participants misunderstanding the task. Dagnan and Sandhu (1999) and Dagnan and Waring (2004) have, however, reported using this measure successfully with people with an intellectual disability. A further measurement issue is that, while self-esteem and social comparison are conceptually different, with the latter hypothesised to influence the former, the adapted Rosenberg Self-Esteem Scale (Dagnan & Sandhu, 1999) has two items that involve a social comparison element. This may have impacted on the relationships which were found between the concepts

Finally, the study had a relatively small sample size of 43 participants. Power calculations found that a sample size of 25 would detect large population effect sizes and a sample size of 70 would detect medium population effect sizes. Several strong relationships were found suggesting that the study was able to detect medium to large population effect sizes and post-hoc power calculations indicated that an acceptable level of power was reached (~0.80).

Summary and conclusions

This study has underlined the importance of the perception of stigma and social comparisons for the emotional wellbeing of people with an intellectual disability living in the community. The relationships presented provide support for the influence of the perception of stigma and social comparison on the self-concept of these individuals. The study found that those who reported higher perception of stigma also reported feeling more negative about themselves. Perception of stigma was not found to be related to social comparison with other service users but it was related to how socially attractive and how capable participants saw themselves compared to the general population. It was shown that people with an intellectual disability who identified more with their peers yet rated themselves as more able than them, viewed themselves more positively. When participants compared themselves to people in the community, those who saw themselves as more socially attractive and more able reported higher self-esteem.

On the whole, the results showed that people with an intellectual disability made downward social comparisons towards others. No differences were found between social comparisons made with service users and with people in the community. Finally, social comparison was found not to have a moderating effect on the

relationship between stigma and self-esteem. It was suggested that as stigma and social comparison were both shown, nonetheless, to be predictive of self-esteem, they might therefore, predict different aspects of the variable.

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Table 1: Mean and standard deviations of all the measures used in the study

Measure		**Mean (SD)**
Stigma	Total score	41.93 (5.36)
Self-esteem	Total score	23.43 (4.05)
	Positive	16.02 (3.02)
	Negative	7.40 (2.00)
Social comparison with service users	Total score	23.43 (4.69)
	Group belonging	3.83 (1.31)
	Social attractiveness	12.19 (2.74)
	Achievement and rank	7.81 (1.63)
Social comparison with the community	Total score	22.71 (5.56)
	Group belonging	3.67 (1.49)
	Social attractiveness	11.55 (3.23)
	Achievement and rank	7.81 (1.74)

Table 2: Correlations of perception of stigma, self-esteem and psychopathology scores with social comparison scores as compared with service users and with the community

		Perception of stigma	Self-esteem		BSI	
			Total score	Positive	Negative	Positive symptom total
Social comparison with service users	**Total score**	0.29	**0.43****	**0.37***	**0.31***	**-0.41****
	Group belonging	0.10	**0.34***	**0.32***	0.22	-0.20
	Social attractiveness	0.28	0.27	0.18	0.27	-0.17
	Achievement and rank	0.30	**0.40****	**0.42****	0.19	**-0.51****
Social comparison with the community	**Total score**	**0.34***	**0.41****	**0.43****	0.18	-0.29
	Group belonging	0.07	0.10	0.15	-0.02	-0.13
	Social attractiveness	**0.35***	**0.34***	**0.34***	0.17	-0.23
	Achievement and rank	**0.34***	**0.50****	**0.51****	0.24	**-0.32***

** Correlation is significant at the 0.01 level (two-tailed)

* Correlation is significant at the 0.05 level (two-tailed)

Table 3: Moderator analysis for social comparison with service users

Predictors	B	β	R^2	Adjusted R^2	R^2 change	*F* change
Model 1						
Stigma	0.24	0.311				
Social comparison	0.30	0.340	0.273	0.237		7.528*
Model 2						
Stigma x social comparison	0.04	2.798	0.316	0.263	0.042	2.413

* $p < .005$

Table 4: Moderator analysis for social comparison with the community

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Predictors	B	β	R^2	Adjusted R^2	R^2 change	*F* change
Model 1						
Stigma	0.24	0.306				
Social comparison	0.23	0.307	0.251	0.214		6.712*
Model 2						
Stigma x social comparison	0.02	1.551	0.277	0.221	0.026	1.379

* $p < .005$