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Peter E Langdon^{1,3}

School of Medicine, Health Policy and Practice
Faculty of Health
University of East Anglia
Norwich
NR4 7TJ
United Kingdom

Broadland Clinic Forensic Service
Little Plumstead Hospital
Hertfordshire Partnership NHS Foundation Trust
Norwich
NR13 5EW
United Kingdom

Isabel C.H Clare²

Cambridge Intellectual & Developmental Disabilities Research Group
Department of Psychiatry,
University of Cambridge,
Douglas House,
18b Trumpington Road,
Cambridge CB2 8AH

Glynis H Murphy

Tizard Centre University of Kent Canterbury CT2 7LZ

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³Requests for Reprints should be sent to Dr Peter Langdon, School of Medicine, Health Policy and Practice, Faculty of Health, University of East Anglia, Norwich, NR4 7TJ, United Kingdom. Email: P.Langdon@uea.ac.uk

² Isabel Clare is funded by the National Institute for Health Research's CLAHRC for Cambridgeshire & Peterborough.

Abstract

Background: Social desirability has been construed as either inaccurately attributing positive characteristics to oneself (self-deception), or inaccurately denying that one possesses undesirable characteristics to others (other-deception or impression management). These conceptualisations of social desirability have not been considered in relation to people with intellectual disabilities (IDs), but they are important constructs to consider when undertaking a psychological assessment of an individual, especially within forensic contexts. Therefore, we revised two existing measures of self- and other-deception and considered their psychometric properties.

Methods: Thirty-two men with mild IDs and 28 men without IDs completed the Self- and Other-Deception Questionnaires- Intellectual Disabilities (SDQ-ID and ODQ-ID) on two occasions, separated by a two-week interval.

Results: Men with IDs scored significantly higher on the SDQ-ID and the ODQ-ID than men without IDs. However, these differences disappeared when Full Scale IQ, Verbal IQ and Performance IQ were controlled in relation to the SDQ-ID, and partially disappeared in relation to the ODQ-ID. The SDQ-ID and the ODQ-ID had substantial internal consistency in relation to men with IDs (k=0.82 and 0.84 respectively). The test-retest reliability of the SDQ-ID was good (r_i =0.68), while the test-retest reliability of the ODQ-ID was moderate (r_i =0.56), for men with IDs. The SDQ-ID had moderate (k=0.60) and the ODQ-ID had substantial (k=0.70) internal consistency in relation to men without IDs, while the test-retest reliability of the SDQ-ID was excellent (r_i =0.87) as was the case for the ODQ-ID (r_i =0.85).

Conclusions: The SDQ-ID and the ODQ-ID have satisfactory psychometric properties in relation to men with and without IDs. Future research using these instruments is proposed.

KEYWORDS: Social desirability, Deception, Self Deception Questionnaire, Other Deception Questionnaire, ODQ-ID, SDQ-ID, Learning Disabilities, Forensic Assessment

Measuring social desirability amongst people with intellectual disabilities: The psychometric properties of the Self- and Other-Deception Questionnaire- Intellectual Disabilities

1. Introduction

Little attention has been paid to the assessment of social desirability when conducting psychological assessments with people who have intellectual disabilities (IDs), especially within forensic contexts. This is a relevant construct to consider, as a person may potentially augment their answers to questions in an attempt to present in a favourable manner leading to an inaccurate assessment. Clinicians undertaking psychological assessments with people with IDs are likely to be aware of potential problems with acquiescence, suggestibility, confabulation and compliance (Clare & Gudjonsson, 1993, 1995; Gudjonsson & Clare, 1995; Gudjonsson, Clare, & Rutter, 1994) as well as the tendency for people with ID to concur with closed questions (Heal & Sigelman, 1995), but little attention appears to have been paid to issues associated with social desirability.

Paulhus (1984, 1986) argues that social desirability may take the form of inappropriately attributing positive characteristics to oneself when responding to assessment material (self-deception), or inappropriately denying that one possesses undesirable characteristics (impression management). Paulhus (1998) went on to develop the Paulhus Deception Scales (PDS), previously called the Balanced Inventory of Desirable Responding, which aimed to assess impression management and self-deception. The PDS is theoretically driven and is often considered to be the most appropriate measure of social desirability. However, the instrument contains a variety of items that relate to employment, and the language is complex, meaning that the questionnaire is inappropriate for use with people who have IDs.

Attempting to source an existing measure of social desirability, which is theoretically driven, and is appropriate for use with people who have IDs, is problematic.

However, Sackheim & Gur (1979) previously developed a measure of self and otherdeception which relates to the theoretical division of Paulhus (1984, 1986) regarding social desirability. The Self-Deception Questionnaire (SDQ) aims to assess a person's tendency to attribute positive characteristics to him or herself, or in other words, to engage in self-deception, while the Other-Deception Questionnaire (ODQ) aims to assess a person's tendency to present him or herself in a favourable manner. The questionnaires have previously been used in the United Kingdom with adults without IDs undergoing forensic assessment (Gudjonsson, 1990), detained within maximum and medium secure hospitals (Gudjonsson & Moore, 2001), and they have been used with adults who have depression (Roth & Ingram, 1985). Gudjonsson and Sigurdsson (2004) also employed these questionnaires in a study involving Icelandic prisoners. They compared the Self- and Other-Deception Questionnaires with the Gudjonsson Suggestibility Scale (Gudjonsson, 1997), the Gudjonsson Compliance Scale (Gudjonsson, 1997), and the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975). They found no significant relationship between deception and suggestibility or compliance, but there was a relationship between psychoticism and neuroticism and the measures of deception.

Social desirability is a relevant construct in psychological assessments of individuals, and perhaps more so with those who have mild IDs within forensic contexts. Given the lack of standardised questionnaires that can be used with people who have IDs,

the aim of this study was to modify the Self- and Other-Deception questionnaires and present these new questionnaires to a group of men with and without IDs on two occasions in order to explore their psychometric properties.

2. Method

2.1 Participants

Thirty two men (*M* age=45.88, SD=15.01; *M* Full Scale IQ=59.35; SD=6.16) were recruited from services for people with IDs and 28 men (*M* age=40.64, SD=10.41; *M* Full Scale IQ=102.29; SD=8.05) without IDs were recruited from the community in Norfolk, UK. All the participants included in this study reported their ethic origin as White British. All participants with IDs attended schools for pupils with special educational needs. None had a known history of charges, cautions or convictions relating to illegal behaviour as they were taking part in another study where the inclusion criteria necessitated no known history of illegal behaviour. The current study was embedded within the larger study.

2.2 Design and Procedure

A 2 (Group: IDs or No IDs) X 2 (Time: 1 or 2) mixed design was used to investigate the Self- and Other-Deception Questionnaires in relation to men with and without ID. "Group" formed a between-participants factor, while "Time" was a repeated measures factor. Participants were recruited and completed a set of measures at one time point, and then completed the measures again following a two-week interval. This two week time interval allowed for the examination of the test-retest reliability.

Following a favourable ethical opinion from the Suffolk NHS Research Ethics

Committee, information about the project was disseminated to men with IDs by

distributing a poster and a leaflet to intellectual disabilities services in Norfolk.

Managers of day services and community learning disabilities teams were contacted directly, and informed of the project. They were asked to distribute information to

men with IDs using their services. They were specifically directed not to share the information regarding the study with anyone using their service whom they knew to have a history of engaging in illegal behaviour. Any man who expressed an interest in taking part was asked to alert his key-worker, who, in turn was asked to inform their manager. The manager then contacted the researcher to inform him of the number of possible participants at a site, and a mutually convenient time was arranged to attend the site and speak to potential participants. Once someone indicated that they would like to take part in the study, he was asked to provide signed consent.

Information about the study was disseminated to men without IDs in several different ways. Leaflets and information sheets were distributed to men employed within a university in a non-academic position through their managers. Information about the study was also disseminated using an advertisement email system at this university. Participants were asked not to volunteer for the study if they had a history of engaging in illegal behaviour. Interested participants were invited to contact the researcher directly, and signed consent was taken from those who wished to take part.

All participants were interviewed on two occasions. During the first meeting, all were asked whether or not they had a history of police arrest or caution, and if they had a history of convictions, or if they were part of an ongoing trial or police investigation as a defendant or suspect. Any participant who disclosed such a history was not recruited into the current study.

Initially, the Wechsler Adult Intelligence Scale - III^{UK} (WAIS-III; Wechsler, 1998) was presented to assess the general intellectual functioning of participants. Following

this, participants completed a battery of assessment questionnaires which included the Self and Other Deception Questionnaires – Intellectual Disabilities (SDQ-ID and ODQ-ID). Additional questionnaires were administered as part of other studies. Following a two-week interval, participants again completed the SDQ-ID and the ODQ-ID, along with other questionnaires relating to other studies.

2.3 Measures

2.3.1 The Self and Other Deception Questionnaire – Intellectual Disabilities (SDQ-ID and ODQ-ID)

The original SDQ and ODQ (Sackeim & Gur, 1979) comprised 20 items which are rated on a 7-point Likert scale. Only upper extremes of the Likert scales are scored (for example, endorsing 6 or 7 on the ODQ would earn one point, while endorsing 1 through 5 earns no points) and the total score possible on each questionnaire is 20. Inspection of the items on the SDQ and the ODQ (see Table 1) showed that some of them might not necessarily be applicable to people with IDs (e.g. 7. When you take a sick-leave from work or school, are you as sick as you say you are?). However, some of the items appeared appropriate (e.g. 5. Do you ever get angry?). Given this, it was decided to revise the existing questionnaires to ensure they were useable with people who have mild IDs. Three clinical psychologists with experience of working with people who have IDs examined the questionnaires and identified items that were likely to be problematic for those with mild ID. These items were revised into a more relevant version which maintained the meaning of the original item. Only once all three clinical psychologists agreed was each item accepted. The original 7-point Likert scale was revised to a 5-point scale in an attempt to reduce complexity, and only extreme responses were scored (e.g. endorsing either 1 or 5 on the Likert Scale).

Only item 12 on the ODQ-ID is reverse scored, while all items on the SDQ-ID are reverse scored. Higher scores represent greater levels of deception (Table 1).

TABLE 1 ABOUT HERE

The new questionnaires were re-titled the Self-and Other Deception Questionnaires – Intellectual Disabilities (SDQ-ID and ODQ-ID). Since these questionnaires represent a significant revision of the original questionnaires, their psychometric properties were examined

2.4 Data Analysis

A 2 (Group) X 2 (Time) repeated measures analysis of variance (ANOVA) was carried out in relation to the SDQ-ID and then the ODQ-ID. Full Scale IQ, Verbal IQ and Performance IQ were entered as covariates in different analyses. Correlations between the scores on the SDQ-ID, the ODQ-ID and general intellectual functioning were then examined. Following this, the psychometric properties of the SDQ-ID and the ODQ-ID were investigated. Internal consistency (kappa) and test-retest reliability (intraclass correlations) were examined.

3.0 Results

3.1 Repeated Measures ANOVA

There was a significant main effect for Time in relation to the SDQ-ID (F(1, 51)=4.12, p=0.048); collapsing across Group, both men with and without IDs scored slightly higher at Time 2, indicating greater self-deception at Time 2. Examination of the data suggests that this may be attributable to an increase in the scores amongst the IDs Group, rather than the no IDs Group; there was a significant main effect for Group, and men without IDs scored significantly lower than men with IDs on the SDQ-ID (F(1, 51)=16.05, p<0.001), although the Group X Time interaction for the SDQ-ID was not significant (F(1, 51)=2.23, p=0.142; Figure 1).

There was no significant main effect for Time in relation to the ODQ-ID (F(1, 51)=1.99, p=0.165). There was a significant main effect for Group (F(1, 51)=28.19, p=0.001; Figure 1), indicating that men without IDs scored significantly lower on the ODQ-ID compared to men with IDs. The Group X Time interaction was not significant (F(1, 51)=0.448; Figure 1). Descriptive data regarding the SDQ-ID and the ODQ-ID are found in Table 2.

FIGURE 1 ABOUT HERE

TABLE 2 ABOUT HERE

Entering Full Scale IQ as a covariate changed these results; there was no significant main effect for Time (F(1, 51)=<1, p=0.878), or Group, (F(1, 51)=<1, p=0.589), and the interaction was not significant (F(1, 51)=<1, p=0.649; Figure 2a) in relation to the SDQ-ID. Entering Full Scale IQ as a covariate when examining the ODQ-ID indicated that there was a significant main effect for Time (F(1, 51)=4.28, p=0.044)

and inspection of the means revealed that participants tended to score lower on the ODQ-ID at Time 2, collapsing across the IDs and no IDs Groups. There was no significant main effect for Group (F(1, 51)=3.18, p=0.081), but the Group X Time interaction was significant (F(1, 51)=5.45; p=0.024). In this case, comparing means across Time revealed that men with IDs tended to score higher than men without IDs at Time 1; at Time 2, men with IDs scored lower, while men without IDs scored higher. (Figure 2a).

FIGURE 2 ABOUT HERE

When Verbal IQ was controlled, there was no significant main effect for Time (F(1, 51)=<1, p=0.979), or Group, (F(1, 51)=<1, p=0.560), and the interaction was not significant (F(1, 51)=<1, p=0.469; Figure 2b) in relation to the SDQ-ID. Entering Verbal IQ as a covariate when examining the ODQ-ID indicated that there was no significant main effect for Time (F(1, 51)=1.40, p=0.243), and the Group X Time interaction was not significant (F(1, 51)=2.27; p=0.138). There was a significant main effect for Group (F(1, 51)=4.80, p=0.033), In this case, men with IDs scored significantly higher than men without IDs, even though Verbal IQ was controlled (Figure 2b).

When Performance IQ was entered as a covariate, there was no significant difference across Time (F(1,51)=<1, p=0.522), between groups (F(1,51)=1.35, p=0.250) and the interaction was not significant (F(1,51)=<1, p=0.942) in relation to the SDQ-ID. Considering the ODQ-ID, when Performance IQ was controlled, there was no significant main effect for Time (F(1,51)=3.195, p=0.080) or Group (F(1,51)=<1,

p=0.864), but the interaction was significant (F(1,51)=4.32, p=0.043). In this case, the adjusted means revealed that the ODQ-ID scores decreased across Time for men with IDs, while they increased for men without IDs (Figure 2c).

3.2 Correlations

At Time One, there was a significant negative correlation between the SDQ-ID at and Full Scale IQ (r(59)=-0.453; p=<0.001), Verbal IQ (r(59)=-0.462, p<0.001), and Performance IQ (r(59)=-0.423, p=0.001). There was also a significant negative correlation between the ODQ-ID at Time One and Full Scale IQ (r(59)=-0.531; p=<0.001), Verbal IQ (r(59)=-0.521, p<0.001), and Performance IQ (r(59)=-0.53.3, p=0.001). Correlations at Time Two were similar to those found at Time One (Table 3).

TABLE 2 ABOUT HERE

In contrast, there was a significant positive correlation over Time for both the SDQ-ID (r(53)=0.780, p<0.001) and the ODQ-ID (r(53)=0.744, p<0.001). The SDQ-ID was positively associated with ODQ-ID scores at Time One (r(59)=0.623, p<0.001) and Time Two (r(53)=0.632, p<0.001; Table 3).

3.4 Internal Consistency and Test-Retest Reliability

The internal consistency of the SDQ-ID and the ODQ-ID was examined at the two Time points included in the current study, initially for men with IDs, and then for men without IDs. The two groups were combined to form an overall group and internal consistency and test-retest reliability were again examined. Results were interpreted

according to the recommendations of Landis and Koch (1977), Cicchetti and Sparrow (1981) and McDowell (2006).

3.4.1 IDs Group

At Time One, the internal consistency of the SDQ-ID was substantial (k=0.823); this was also the case at Time Two (k=0.811). The situation for the ODQ-ID was similar, with the internal consistency of the measure being substantial at both Time One (k=0.842) and Time Two (k=0.778). The test-retest reliability of the SDQ-ID was found to be good (r_i=0.676), and for the ODQ-ID it was found to be moderate (r_i=0.562).

3.4.2 No IDs Group

At Time One, the internal consistency of the SDQ-ID was moderate (k=0.599), while at Time Two it was substantial (k=0.700). The ODQ-ID showed substantial internal consistency at Time One (k=0.647), and Time Two (k=0.811). The test-retest reliability of the SDQ-ID was found to be excellent (r_i=0.867), as was the case for the ODQ-ID (r_i=0.847).

3.4.3Both Groups

Combining the IDs and No IDs Groups indicated that the internal consistency of the SDQ-ID at both Time One (k=0.808) and Time Two (k=0.829) was substantial. Similarly, the ODQ-ID showed substantial internal consistency at Time One (k=0.862), and Time Two (k=0.846). The test-retest reliability of the SDQ-ID was found to be excellent (r_i=0.779), while it was good for the ODQ-ID (r_i=0.743).

4. Discussion

The findings of this study suggested that men with IDs present with higher levels of self and other-deception than men without IDs. However, the difference between the two groups dissipated when intelligence was controlled. This suggests that the difference between men with and without IDs on the measures of deception can be accounted for by differences in general intellectual functioning. Indeed, there was a negative correlation between scores on the ODQ-ID or the SDQ-ID, and measures of general intellectual functioning.

When controlling for Full Scale IQ within the analysis, the difference between the groups dissipated, but inspection of the adjusted means revealed a reduction in impression management by men with IDs and an increase in impression management by men without IDs. A similar finding was found when Verbal IQ and Performance IQ were controlled in relation to the ODQ-ID. The reduction in scores for men with IDs may be associated with this group feeling more at ease at Time Two, as they had met the researcher previously. This reduction was evident in the unadjusted means (Figure 1), but did not reach statistical significance. The increase in impression management amongst men without IDs when controlling for Full Scale, Verbal or Performance IQ was not evident within the unadjusted means (Figure 1). Taking the SDQ-ID, the differences between men with and without difficulties disappeared when Full Scale, Verbal or Performance IQ were controlled.

Examination of the internal consistency and the test-retest reliability of the ODQ-ID and the SDQ-ID indicated that the instruments are generally satisfactory for use with men both with and without IDs. The test-retest reliability of the ODQ-ID, with

respect to men with IDs, was moderate, and this was related to a reduction in impression management at Time Two. The test-retest of the SDQ-ID was good in relation to men with IDs. In contrast, test-retest reliability was excellent when the SDQ-ID was used with men without IDs. When the two groups were combined, it ranged from good to excellent. It is possible that the lower test-retest reliability of these instruments when used with men with IDs may reflect the use of a 5-point Likert scale. Some participants seemed to be a little confused by the scale, and it may be worthwhile exploring whether or not a scale with fewer points would be more appropriate.

Given the sample size, it was not possible to undertake a principal-components analysis of the SDQ-ID and ODQ-ID. Gudjonsson (1990) undertook such an analysis, using the original versions of the SDQ and the ODQ. He reported that the SDQ comprised six factors, while the ODQ had eight. There were some problems noted as some items on both questionnaires did not load onto the first three factors, and interpreting the factor structure of the ODQ was difficult. Roth and Ingram (1985) also subjected the SDQ and the ODQ to factor analysis, but they used a different scoring procedure to that used by Gudjonsson (1990). Given that the items on the SDQ-ID and the ODQ-ID have been modified, and the scoring framework amended, it would be important to undertake a factor analysis of these instruments in any future study.

Unfortunately, the scores obtained in the current study cannot be compared with those of other studies because of the augmentations to the original questionnaires.

Nevertheless, since the instruments are likely to be of value in forensic contexts, it

would be worthwhile to undertake a similar study to this one using participants who are undergoing forensic assessments, or with participants drawn from prisons or secure mental health care services. Furthermore, it would also be of use to examine the relationship between scores on the SDQ-ID and the ODQ-ID and other psychological assessments. This would allow for consideration of the relationship between self- or other-deception, and the findings of other assessment measures. This may be of value in establishing whether the psychological assessment of a particular person with IDs is compromised by self- or other-deception.

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Table1: The original items of the ODQ and SDQ, and the modified items forming the ODQ-ID and the SDQ-ID. .

SDQ	SDQ-ID	ODQ	ODQ-ID
1. Have you ever felt hatred towards	1. Have you ever felt hatred towards	1*. Do you apologise to others for	1. Do you say you are sorry to
your parents?	your parents?	your mistakes?	people when you make a mistake?
2. Do you ever feel guilty?	2. Do you ever feel guilty?	2*. Are you knowledgeable about the things you talk about?	2. Do you know a lot about the things you talk about?
3*. Does every attractive person of the opposite sex turn you on?	3. Does ever sexy person turn you on?	3. When you hear people gossiping do you try not to listen?	3. When you hear people gossiping, do you try not to listen?
4. Have you ever felt like you wanted to kill somebody?	4. Have you ever felt like you wanted to kill somebody?	4*. Do you always throw your litter into wastebaskets on the street?	4. Do you always throw your rubbish in a bin on the street?
5. Do you ever get angry?	5. Do you ever get angry?	5. Are you honest?	5. Are you honest?
6. Do you have thoughts that you don't tell other people about?	6. Do you have thoughts that you don't tell other people about?	6*. If you say you will do something, do you keep your promises, no matter how inconvenient it might be to do so?	6. Do you keep a promise, if you are going to do something, no matter how difficult it might be?
7. Do you ever feel attracted to	7. Have you ever felt attracted to	7*. When you take a sick-leave	7. When you say you are too sick, is
people of the same sex?	someone who is the same sex as you?	from work or school, are you as sick as you say you are?	it always really true?
8. Have you made a fool of yourself?	8. Have you ever made a fool of yourself?	8. Do you show respect to older people?	8. Do you show respect to older people?
9*. Are there any things in your life which make you very unhappy?	9. Are there any things in your life which have made you very unhappy?	9. Are you in control of your temper?	9. Are you in control of your temper?
10. Is it important to you that other people think highly of you?	10. Is it important that other people think highly of you?	10. Are you loyal to your friends?	10. Are you loyal to your friends?
11. Would you like to know what other people think about you?	11. Would you like to know what other people think about you?	11. Do you like all the people you know?	11. Do you like all the people you know?
12. Were your parents ever mean to you?	12. Were your parents ever mean to you?	12*. Would you declare everything at customs, even if you knew that you could never be found out?	12. If you wanted to buy something, and you could get away without having to pay for it, would you?

13. Do you have any bad memories?	13. Do you have any bad memories?	13. Have all your habits been good and desirable ones?	13. Are all of your habits nice and good ones?
14. Have you ever thought that your parents hated you?	14. Have you ever thought that your parents hated you?	14. Do you tell the truth?	14. Do you tell the truth?
15. Do you have sexual fantasies?	15. Do you have sexual fantasies?	15*. Are you on time for appointments or work?	15. When you have to be somewhere, are you always on time?
16*. Have you ever been uncertain as to whether or not you are homosexual?	16. Have you ever thought that you might be gay?	16*. Do you obey traffic regulations (including jay-walking)?	16. Do you ever break the law, even a little bit?
17*. Have you ever doubted your sexual adequacy?	17. Have you ever thought you weren't very good at sex?	17. When you were a child did you obey your parents?	17. When you were a child, did you obey your parents?
18*. Have you ever enjoyed your bowl movements?	18. Have you ever enjoyed going to the toilet?	18*. Are you fair in your judgements of others?	18. Are you fair to other people?
19. Have you ever wanted to rape someone or be raped by someone?	19. Have you ever wanted to rape someone or be raped by someone?	19*. Are you polite and understanding toward other people?	19. Are you polite and understanding towards others?
20*. Have you ever thought of	20. Have you ever thought about	20*. Are you willing to let people	20. Are you willing to tell other
committing suicide in order to get	killing yourself to get even with	know about all of your thoughts and	people about all of your thoughts
back at somebody?	someone?	ideas?	and ideas?

^{*}item has been modified

Figure 1: Mean and standard error of the mean (SEM) for IDs and no IDs groups across Time.

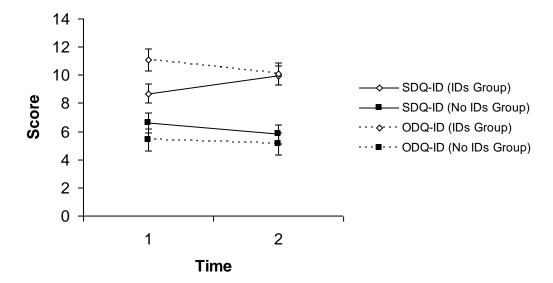
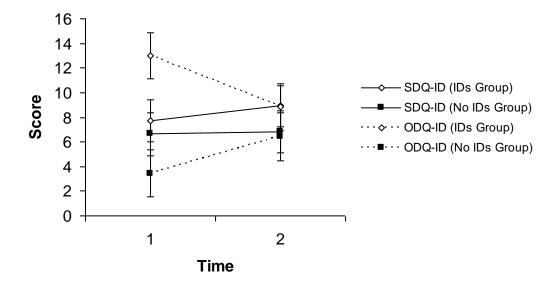


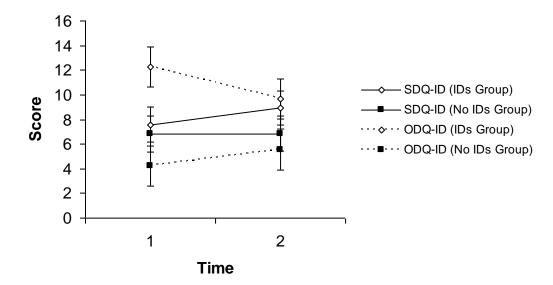
Figure 2: Adjusted means and standard error of the adjusted mean (SEM) for IDs and no IDs groups across Time controlling for (a) Full Scale IQ, (b)

Verbal IQ, and (c) Performance IQ.

(a)



(b)



(c)

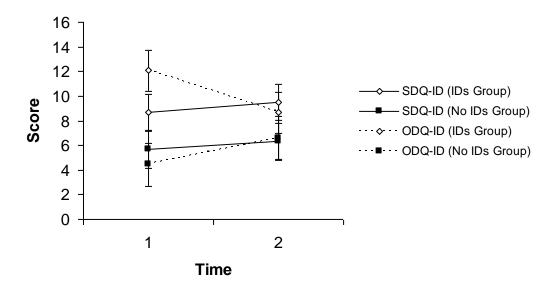


Table 2: Descriptive data.

	Men with IDs		Men without IDs			
	\mathbf{M} =	SD=	Range	\mathbf{M} =	SD=	Range
Full Scale IQ	59.35	6.16	28	102.29	8.05	44
Verbal IQ	61.65	6.21	27	99.75	8.83	37
Performance IQ	63.81	6.27	24	105.18	9.36	44
SDQ-ID Time 1	8.97	4.15	15	5.54	2.46	9
SDQ-ID Time 2	9.96	4.09	18	5.81	2.74	11
ODQ-ID Time 1	11.26	4.80	18	5.50	3.04	13
ODQ-ID Time 2	10.07	4.25	17	5.12	3.85	14

Table 3: Correlations (two tailed) between the SDQ-ID and the ODQ-ID, as well as general intellectual functioning and spoken language.

	Verbal	Performance	SDQ-	SDQ-ID	ODQ-	ODQ-
	IQ	IQ	ID	Time 2	ID	ID
			Time 1		Time 1	Time 2
Full Scale IQ	0.985**	0.979**	0.453**	0.517**	0.531**	0.530**
Verbal IQ	-	0.932**	0.462**	0.518**	0.521**	0.505**
Performance IQ	-	-	0.423**	0.535**	0.533**	0.535**
SDQ-ID Time 1	-	-	-	0.780**	0.623**	0.557**
SDQ-ID Time 2	-	-	-	-	0.591**	0.632**
ODQ-ID Time 1	-	-	-	-	-	0.744**

^{**}p<0.01