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The Psychometric Properties and Utility of the Short Sadistic Impulse Scale (SSIS)

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Sadistic personality disorder (SPD) has been underresearched and often misunderstood in forensic settings. Furthermore, personality disorders in general are the subject of much controversy in terms of their classification (i.e., whether they should be categorical or dimensional). The Sadistic Attitudes and Behaviors Scale (SABS; Davies & Hand, 2003; O'Meara, Davies, & Barnes-Holmes, 2004) is a recently developed scale for measuring sadistic inclinations. Derived from this is the Short Sadistic Impulse Scale (SSIS), which has proved to be a strong unidimensional measure of sadistic inclination. Through cumulative scaling, it was investigated whether the SSIS could measure sadism on a continuum of interest, thus providing a dimensional view of the construct. Further, the SSIS was administered along with a number of other measures related to sadism in order to assess the validity of the scale. Results showed that the SSIS has strong construct and discriminant validity and may be useful as a screening measure for sadistic impulse.

Keywords: sadism, attitude, measurement, cumulative scale

The term *sadism* is often vaguely defined and is inconsistently applied in the psychology literature (Baeza & Turvey, 1999; Fromm, 1973; Leary, 1957; Shapiro, 1981). This lack of clarity is further confounded by the common failure to distinguish between the now-defunct diagnosis of sadistic personality disorder (SPD) and sexual sadism. Indeed, much of the research into sadistic personality has been conducted using sexual offenders, fueling confusion with regard to an accurate definition of either condition and a clear understanding of their common and distinct features (Berger, Berner, Bolterauer, Gutierrez, & Berger, 1999; Fedora et al. 1992; Marshall & Kennedy, 2003). Although the third edition (revised) of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R*; American Psychiatric Association, 1987) included SPD under the category of disorders needing further study, it was removed and remains absent from the latest edition of the manual (*DSM-IV-TR*; American Psychiatric Association, 2000). The removal of this diagnosis from the *DSM* was primarily based on psychiatrists' and other professionals' concerns that it

may be invoked as an exculpatory tool by violent offenders. Also, overlaps with criteria for other personality disorders made for possible confusion in diagnosing presenting symptoms. As a result, there is currently no diagnosis for sadism apart from that of the paraphilia sexual sadism. In spite of this, a number of researchers (e.g., Berger et al., 1999) applied the *DSM* SPD criteria for the purpose of categorization and classification of individuals in a variety of contexts.

After an extensive review of the literature, we developed the following definition for *sadistic personality*:

The term *sadistic personality* describes a person who humiliates others, shows a longstanding pattern of cruel or demeaning behavior to others, or intentionally inflicts physical, sexual, or psychological pain or suffering on others in order to assert power and dominance or for pleasure and enjoyment.

This definition allows for a dimensional take on the construct and does not impose strict criteria or cutoff points as it is the view of the authors that sadistic personality exists along a continuum of interest, ranging from relatively benign sadistic attitudes to more pathological behavioral expressions. This is in keeping with Millon's adaptive-maladaptive take on sadistic personality (Millon, 1996). Millon theorized that at the well-adjusted end of the continuum of what he termed the *sadistic dominant personality pattern* are people who are strong willed and assertive, whereas at the extreme maladaptive pole are individuals who are domineering, highly aggressive behaviorally, and belligerent. Adaptively sadistic individuals have been described as driven to prove their significance and have been characterized in the workplace as hard working, goal oriented, competitive, and as functioning best in

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positions of authority and where they work independently (Strack, 1997). However, a clearly defining feature that separates the sadistic from the dominant aggressive individual is that the former will manifest gratification and pleasure in the subjugation of others.

Most research to date that addresses sadism has concentrated upon a sexual modality. Estimates of the prevalence of sexual sadism in the general population suggest that 10%–50% of people have fantasies of hurting or humiliating others, and 2%–5% report obtaining sexual gratification from inflicting pain on others (Arndt, Foehl, & Good, 1985; Crépault & Couture, 1980; Hunt, 1974). Berger et al. (1999) found that 19% of a sample of sexual offenders could be classified with SPD. Nevertheless, sadistic impulses do not need to be manifested through sexual behavior. Sadism may, for example, present itself in sporting preferences or in occupational interactions. Millon (1996) has argued that there may be a sadistic subtype of antisocial personality that is not a function of sexual deviance. Berger et al. (1999) also demonstrated that a substantial number of individuals diagnosed with SPD show no evidence of sexual sadism.

Sadism can, therefore, describe behaviors as varied as the verbal humiliation of a consenting sexual partner and the actions of psychotic molesters and murderers discussed by such authors as Siomopoulos and Goldsmith (1976). As a result, direct parallels have been made among the many different concepts involved in sadomasochism, despite warnings by Herron and Herron (1982) that researchers should not automatically equate sexual behavior with other behaviors or sexual sadism and masochism to sadistic and masochistic personality types. The *DSM-III-R* (American Psychiatric Association, 1987) did not explicitly differentiate between pathological sadism/masochism and the sadomasochistic activities that are practiced by the substantial proportion of the general population who constitute the BDSM (bondage discipline/dominance submission/sadism masochism) community. The *DSM-III-R* (American Psychiatric Association, 1987) classification of SPD also lacked any differentiation between pathological and nonpathological expressions of sadism, indicating that there is a need to understand both sadistic personality and sexual sadism along a continuum, rather than merely in terms of the presence versus absence of a disorder. Thus, the modalities through which sadistic impulses become manifest may vary considerably. However, it may be surmised that if a generalized sadistic personality trait exists, then individuals in whom the trait is strong will be predisposed to sadistic behavior across modalities.

Influences on Sadism

The etiology of sadism is unclear, although various formative experiences in childhood have been linked to sadism among adults. These include childhood aggressiveness, impulsivity, and acts of bullying (Bates, Bayles, Bennett, Ridge, & Brown, 1991; Ferris & Grisso, 1996) or the presence of *unsocialized aggressive syndrome* (Hewitt & Jenkins, 1946). Millon (1996) highlighted possible negative reactions that parents may have in response to difficult behaviors in their children and suggested that this parenting history may contribute to the development of sadistic tendencies. Furthermore, Reti et al. (2002) proposed that absence of parental care in childhood can result in dysfunctional attachments being formed, resulting in children becoming antisocial and aggressive in adult-

hood. Reactive attachment disorder (RAD; *DSM-IV*; American Psychiatric Association, 1994) is characterized by disturbed and inappropriate social behavior in most contexts. Levy and Orlans (1998) stated that RAD can be a result of separation from the caregiver, a lack of (or inconsistent) affection and care, neglect, or other forms of child maltreatment. Sadism, violence, and counterfeit emotionality are behaviors often displayed by children with RAD (Delaney, 1998).

It has been suggested that empathy development may be retarded in individuals with sadistic inclinations, and a lack of empathy has been associated with sadistic personality (Bushman & Baumeister, 1998). Empathy can be defined as the capacity to understand and enter into another person's feelings and emotions or to experience something from the other person's point of view (Goodin, 2003). As such, empathy consists of two major components: cognitive (recognition of the feelings, thoughts, and intentions of another) and affective (sympathy and vicarious arousal from the affective state of the other). However, one would assume that in order to obtain pleasure and enjoyment from another's discomfort, a sadistic individual should have the capacity to recognize the feelings, thoughts, and intentions of another. Thus, sadists may have a cognitive empathic understanding of their victim's suffering while potentially lacking appropriate emotional responses to this suffering.

Kirsch and Becker (2007) argued that some sadistic individuals may not be sensitive to the expressed suffering of others and consequently exert extreme distress in order to evoke reactions. However, this argument may be confounding overt aggression with sadism as sadists may demonstrate a marked degree of empathy in the recognition of others' feelings in order to gain gratification from their discomfort or pain. Indeed, Marshall and Kennedy (2003) suggested that studies indicating significant overlap between the sadistic personality and sexual sadism may be overreliant upon the presence of aggression to identify sadistic impulses. Furthermore, Stone (2006) stated that in relation to sadists' lack of empathy, the term *compassion* should be used because plenty of sadists excel at discerning the feelings of others.

As can be seen from the definition above, dominance is another substantial aspect of sadism. For example, *DSM-III-R* diagnostic criteria stated "[The sadistic individual] (h)as used physical cruelty or violence for the purpose of establishing dominance in a relationship (not merely to achieve some noninterpersonal goal, such as striking someone in order to rob him or her)" (*DSM-III-R*; American Psychiatric Association, 1987, p. 371). In relation to Millon's theory of the adaptive–maladaptive sadistic personality, the characteristic expressive behavior of the sadistic dominant personality is essentially assertiveness. At the adaptive pole, these individuals are tough minded, competitive, and unsentimental, whereas their maladaptive counterparts tend toward expressive aggression. Regarding interpersonal conduct, a commanding, authoritative, powerful, and persuasive presence characterizes these individuals (Millon, 1996).

Birtchnell (1994) proposed a classification system of personality (the interpersonal octagon) within which relating behavior is defined along two axes: proximity and power. The theory distinguishes between positive (competent) and negative (incompetent) relating to others. Birtchnell (2002) stated that during the course of maturation, innate interpersonal dispositions are converted into skills that enable the individual to attain a desirable state of

relatedness. A competent relater thus relates confidently, securely, and reasonably. In contrast, those who lack appropriate skills are deemed incompetent relaters. In terms of maladaptive or unacceptable means of seeking particular states of relatedness, Birtchnell (1994) discussed the lack of consideration for the other that is demonstrated by the unreasonable relater. This person so badly needs a particular state of relatedness that he or she is prepared to achieve this, regardless of the consequences to the other person. As such, the unreasonable relater does not interrelate; rather, he or she relates and expects the other to be accommodating. We can thus see how adaptive–maladaptive relating may play a substantial role in sadistic behavior. On the power axis of the interpersonal octagon, optimum matching requires that the needs of one must complement the needs of the other. Such optimal matching, in the extreme, can be seen in sadomasochistic communities whereby submissives seek out dominators and the interrelation is amicable (Langdridge & Butt, 2005). Maladaptive relating in this sense, however, can be described as unreasonably sadistic in that the person assumes a level of authority and power without the consent of the relating other.

Measuring Sadism

Some authors have discussed the assessment of sexual sadism (Hollin & Howells, 1994); however, there is little within the literature relating specifically to the assessment of sadism as a personality construct. Exceptions to this include widely used personality assessment tools such as the Minnesota Multiphasic Personality Inventory (MMPI), where sadistic types of behavior may be identified from an individual's profile of more general scales (Friedman, Lewak, Nichols, & Webb, 2000). Similarly, Scale 6(b) of the Millon Clinical Multiaxial Inventory (MCMI) addresses aggressive–sadistic personality but is more focused on hostile aggression than on an overarching personality construct (Millon, 1985).

Need for a Screening Tool

These psychopathology-based measures are not helpful in general screening. In order for one to assess levels of sadistic inclination and determine potential means of expression, a screening tool addressing sadistic characteristics is required. This tool would allow individuals to be placed along a continuum of expression of sadistic inclinations. Such a tool would enable both forensic and intervention services to explore and explain clinical needs and problems faced by some of the individuals they treat. Furthermore, a screening tool for sadistic inclinations may benefit academics as new directions for research into this dimensional construct would be available for investigation.

In developing screening devices for psychopathological traits, it is important to utilize appropriate psychometric models. One principal drawback of relying too heavily upon the strategy of collecting homogenous items that provide a high degree of internal consistency, usually assessed by Cronbach's alpha (Cronbach, 1951), is that the underlying scale structure is often overlooked. If it is considered necessary to separate individuals into diagnostically relevant categories along a trait continuum, an implicit assumption is that those sharing a category will present with similar symptom profiles. In the case of a self-report inventory, this means

that people occupying the same category along the scale will be homogenous with regard to their item response profiles.

Furthermore, it is useful if the aggregation of items, or symptoms, conforms to a cumulative model. In this way, an individual's item responses can be readily predicted from the strength of the trait in question and vice versa (Guttman, 1944). Thus, Cronbach's alpha, with its focus on homogenous items, gives very little insight into a measure's ability to screen individuals. Item response theory provides the techniques to address this issue directly; in particular, the model originally proposed by Georg Rasch (1966) and developed by many since (e.g., Fischer & Molenaar, 1995) allows for the testing of cumulative structures.

Screening devices for psychopathological traits are almost inevitably skewed because the endorsement of the items or symptoms is likely to be rare in a general nonpathological sample. Classical test theory makes untenable assumptions, in this case, about the normal distribution of the underlying trait. The Rasch model may be used in this case to examine the cumulative nature of the item responses without the need for such assumptions.

The Present Study

The present study outlines the development of a short psychometric test of sadistic impulse that aims to place respondents along a continuum of generalized sadism. Originally, Davies and Hand (2003) developed a scale for measuring prevalence rates and specific types of sadistic attitudes and behaviors—the Sadistic Attitudes and Behaviors Scale (SABS). Specifically, SABS focuses on a number of features commonly identified within sadistic interests, according to the original *DSM-III-R* (American Psychiatric Association, 1987) criteria, clinical opinion, MCMI Scale 6b, and other influences. Further exploration resulted in a 10-item subscale titled the Short Sadistic Impulse Scale (SSIS). The SSIS is offered as a simple screening device for exploring sadistic orientation that underpins the manifestation of sadism in a variety of modalities.

Aims

A central aim of the current study was to ascertain the psychometric credibility of the SSIS and in particular its fit with a Rasch model. More particular objectives related to exploring correlates of sadism, specifically the relationship between sadism and empathy, were explored. Additional specific hypotheses regarding the correlates of sadism were the following: (a) sadism scores will correlate with dysfunctional attachment and parental bonding, and (b) sadism scores will correlate with scores of interpersonal dominance.

Study 1

Method

Participants. A sample of 407 undergraduates was recruited from a population of students attending the National University of Ireland Maynooth, the University of Sheffield, and the University of Manchester (57.8% women; 42.2% men; with a mean age of 21.51 years). The sample consisted of students in many different fields of study, thus representing a general student population.

Participants were approached on campus and asked to complete the SABS questionnaire. No time restraints were in place. Average completion time was 5 min.

Materials: Scale development. The SABS is a 49-item questionnaire designed by Davies and Hand (2003) through a standard item-generating technique using available literature and the views of psychologists working with offenders who disclosed sadistic elements of their offending. These psychologists were asked to identify features they believed were important in sadistic interest as well as areas they would assess in sadistic offenders. The resultant questionnaire included four items designed to represent criterion reference items against which the 49-item questionnaire could be assessed. These items were as follows: "I consider myself a sadistic person"; "I consider myself a placid person"; "I enjoy hurting others"; "I enjoy caring for others." All items (including the additional four) were rated on a 4-point ordinal rating scale, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*).

Procedure. Participants were presented with the SABS in person and given as much time as required to complete the questionnaire. Participants were asked for their consent prior to partaking in the study and were either debriefed in person afterward or given contact information for a researcher should they wish to know more about the nature of the research.

Results

Factor analysis. In order to explore the underlying structure of the SABS, we subjected the 49-item body of the scale to exploratory factor analysis. It was expected that this scale would tap into some underlying factor as representative of sadistic interests. Once the suitability of the data for factor analysis was determined, principal-components analysis (PCA) was used to investigate the scale's structure. Inspection of the scree plot indicated only one factor for extraction, given the clear break between the first and second components. The first component explained 17.69% of the variance while each proceeding component fell short of explaining just 5% of the variance. Inspection of the component matrix revealed great consistency in the overall nature of the variables constituting the largest loadings on this factor. Specifically, Factor One appears to be of a "hurting" nature, with all items specifying some form of hurting behavior.

Further to factor analysis, scale reliability of this new subscale was assessed using Cronbach's alpha (Cronbach, 1951). Initial psychometric analyses of this subscale, titled the Short Sadistic Impulse Scale (SSIS), produced an internal consistency estimate of 0.86. The mean score of the test was found to be 1.06, with a standard deviation of 1.48. Similar means were reported across genders. The fact that the maximum possible test score was 10 indicates the expected substantial skew toward low scores, given the sensitive nature of the topic under investigation and the non-clinical sample recruited.

Study 2

Method

Participants. Rasch analysis and validation of the SSIS were carried out on responses from 564 individuals recruited through snowball e-mailing of requests to participate in the study. This

sample was composed of students (87%) and members of the general population (6% skilled or semiskilled, 3.9% in business, 0.4% both unemployed and manual work, and 2.3% unspecified). Average age was 23 years (range: 18–65, $SD = 6.2$) with 58% female participants and 42% male participants. Those agreeing to participate were provided with a link to an online battery of questionnaires preceded by a consent form and contact information for a researcher.

Materials. The SSIS is a 10-item self-report inventory derived from the 49-item SABS (Davies & Hand, 2003; O'Meara, Davies, & Barnes-Holmes, 2004). The SSIS items were selected as a homogenous subset of items following psychometric evaluation of the SABS (O'Meara, 2006). The items are recorded in a dichotomous form using the categories *like me* and *unlike me*. Thus the maximum score is 10, with a minimum of zero.

The Empathy Quotient (EQ), developed by Baron-Cohen and Wheelwright (2004), consists of 40 items addressing various aspects of empathy, both on a cognitive and emotional level. Test-retest reliability for the EQ was established at $r = .97$ ($p < .001$). The authors claim that the EQ demonstrates good psychometric quality. There has been substantial research reported using the EQ, and the psychometric properties are generally found to be strong, with adequate internal consistency and concurrent validation reported (Baron-Cohen & Wheelwright, 2004; Muncer & Ling, 2006).

The Person's Relating to Others Questionnaire—3 (PROQ-3; Birtchnell, 2002), developed by Birtchnell as a revised version of the earlier PROQ (Birtchnell, Falkowski, & Steffert, 1992), is a 48-item measure consisting of eight subscales based upon the interpersonal octagon (Birtchnell, 1994). These scales measure adaptive and maladaptive relating. The PROQ has undergone much development since its original inception, with the current form demonstrating improved discrimination between neighboring scales. Each item has four response categories extending from *nearly always true* to *rarely true*, with a maximum score of 15 for each scale. Good internal validity has been shown in previous studies with the PROQ-3 (Birtchnell, Shuker, Newberry, & Duggan, 2009).

The Parental Bonding Index (PBI) was designed to measure individuals' perspectives on their parents and the care and protection experienced with each parent during one's formative years. This is a 25-item scale exploring levels of attachment experienced by individuals. Factor analysis of the PBI resulted in two scales—Care and Overprotection (Parker, Tupling, & Brown, 1979). More recent work with the PBI has investigated predictive, construct, and concurrent validity and has reported good psychometric properties (Cheng & Furnham, 2003).

Procedure. Participants were presented with a web address to the battery of questionnaires and asked to complete these in their own time. Participants were asked for their consent prior to partaking in the study and were given contact information for the researchers should they wish to know more about the nature of the research.

Ethical considerations. All Psychological Society of Ireland codes of ethics were abided by in the undertaking of this research. Privacy, anonymity, and confidentiality were maintained in that no identifying information was requested from participants. Individuals were informed of the nature of the study prior to taking part; thus, informed consent and freedom of consent were established.

Participants were informed of their right to self-determination and received a consent form, prior to participation, indicating their right to withdraw from the study at any time, should they wish to do so. All those who participated were invited to e-mail a researcher should they wish to understand the nature of the study further. In this case, a prepared report was made available for those interested. Furthermore, a research proposal was passed through the university's ethics committee to ensure that this was an ethically sound study.

Results

The descriptive statistics of the SSIS remained similar to those found in Study 1. Mean score was 1.0, with a standard deviation of 1.48. The range of scores was 0–9, with 95.7% of participants scoring 4 or lower. No gender or age differences arose, with both men and women maintaining similar, nonsignificant means across age groups.

Dimensionality. A PCA of the SSIS was first conducted to examine the variance accounted for by a single underlying latent factor. The first component extracted 45.86% of the variance (eigenvalue = 4.58), whereas the second eigenvalue was 0.98. As eigenvalues less than 1 are of no psychological significance, this indicates that the interitem correlations were reliably explained by only one underlying factor. For completeness, a parallel analysis was performed using 1,000 random draws; this is summarized in Figure 1. The item loadings on the single factor are presented in Table 1.

Subsequent to finding that one underlying latent trait explained a major part of the interitem covariance, we subjected the items to Rasch modeling. The principal objective of this analysis was to demonstrate a cumulative structure to the underlying sadistic trait. A conditional maximum likelihood procedure was adopted to identify the parameters of the model. This makes no assumptions about the distribution of the trait scores and provides unbiased parameter estimates. The results of the Rasch analysis, juxtaposed against the single factor loadings, are reported in Table 1.

Item misfit was assessed by Andrich's (1982) approach of breaking the sample down to a small number of ordinal arranged groups according to similarity on the trait score and then comparing the observed frequencies of item endorsement with the expected frequencies derived from the model parameters. The program used for the analysis (Hammond, 2008) identifies a maximum of six groups. All 10 items revealed a good degree of fit to the model using this criterion.

The spread of items along the continuum was quite wide and suggested a reasonable range for test score discrimination along the scale. This was demonstrated by the plot of item characteristic curves (ICCs) in Figure 2. A number of items were closely adjacent (e.g., Items 4 and 6), and this may suggest a measure of redundancy.

The cumulative order of the items is informative. It is clear that the most commonly endorsed items at the low end of the scale involve instrumental use of hurting, and, as we move up the scale, fantasy and gratification emerge in the item content. Figure 3 shows the distribution of scores along the cumulative scale. Here it is apparent that the vast majority of respondents were congregated at the extreme low end of the scale. This is entirely consistent with a scale that attempts to screen pathological functioning within a general population.

Concurrent validation. In Table 2 correlations between the SSIS score and those of measures concerned with empathy, interpersonal relating, and parental bonding are presented. The full interscale matrix of correlations is reported for completeness. It is worth noting the skew in the Sadistic Impulse score, which serves to truncate the range of the correlations reported. Therefore, the results in Table 2 should be viewed as conservative estimates of the relationship between constructs.

Nevertheless, the pattern of results was true to expectation and provided encouraging evidence of concurrent validity. With regard to empathy, there was a clear negative relationship between empathetic and sadistic responses. PCA of the EQ however, revealed three subscales addressing substantially different aspects of empa-

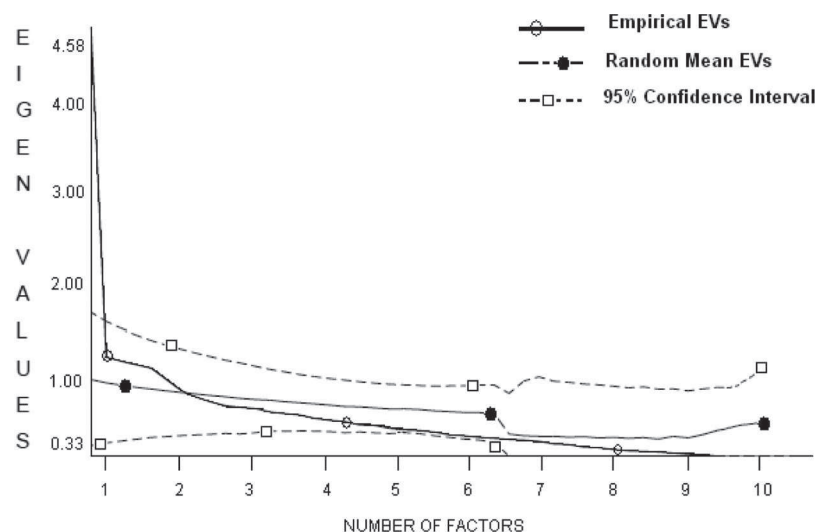


Figure 1. Parallel analysis for appraising salient factors. EV = eigenvalue.

Table 1

Item Parameters Derived From Rasch Modeling of the Short Sadistic Impulse Scale

Item	Item description	First component loading	Mean	δ	SE	χ^2	p
8	I enjoy seeing people hurt.	0.54	0.01	-2.13	0.34	4.03	ns
7	I would enjoy hurting someone physically, sexually, or emotionally.	0.50	0.02	-1.87	0.30	7.55	ns
2	Hurting people would be exciting.	0.54	0.03	-0.93	0.21	3.79	ns
5	I have hurt people for my own enjoyment.	0.68	0.04	-0.69	0.19	3.99	ns
1	People would enjoy hurting others if they gave it a go.	0.68	0.05	-0.44	0.17	3.20	ns
9	I have fantasies which involve hurting people.	0.70	0.07	-0.06	0.15	3.42	ns
3	I have hurt people because I could.	0.60	0.11	0.59	0.12	7.53	ns
4	I wouldn't intentionally hurt anyone. ^a	0.65	0.18	1.45	0.09	4.15	ns
6	I have humiliated others to keep them in line.	0.71	0.18	1.45	0.08	4.75	ns
10	Sometimes I get so angry I want to hurt people.	0.69	0.31	2.63	0.07	4.63	ns

Note. Log likelihood: -1341.3401.

^a Reverse scored.

thy: Emotional Response, Insensitivity, and Social Skill (O'Meara, 2006). When broken down by these subscales, it was clear that this negative relation is primarily between the Insensitivity subscale and sadistic impulse, with Social Skill also correlating negatively with the SSIS, although to a lesser extent.

Interpersonal relating as measured by the PROQ-3 (Birtchnell, 2002) provided yet more encouraging data for the SSIS. The direction of the correlations revealed that sadistic impulse is associated with dysfunctional interpersonal relating, as expected. It was also apparent that sadistic impulse may be placed within the upper quadrant of Birtchnell's octagon (U scales), which is a region describing dominant and abusive relating at the dysfunctional level.

Parental bonding measures (both maternal and paternal) showed weaker patterns, although they were consistent with expectations from the etiological literature. Measures of parental caring indicated a negative relationship with sadistic impulse, indicating that parental warmth (particularly from the father) may provide a degree of inoculation against the development of sadistic impulse.

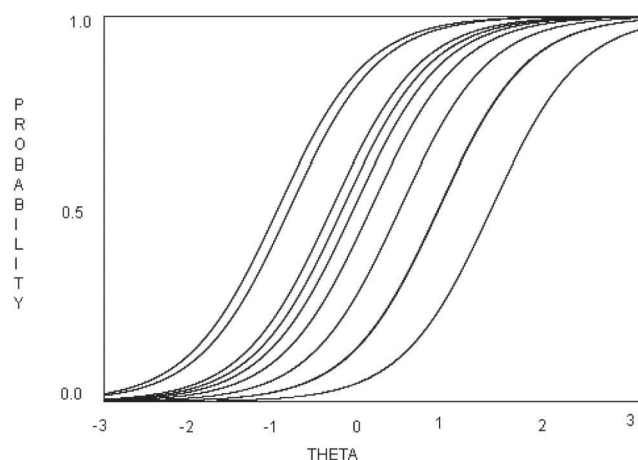


Figure 2. Item characteristic curves of all 10 items of the Short Sadistic Impulse Scale. Items 4 and 6 overlap and are located in the curve second from right.

Parental overcontrol, on the other hand, had no bearing upon sadistic impulse.

Discussion

The findings support the use of the SSIS as a screening device for sadistic impulse. On the basis of the cumulative order and the

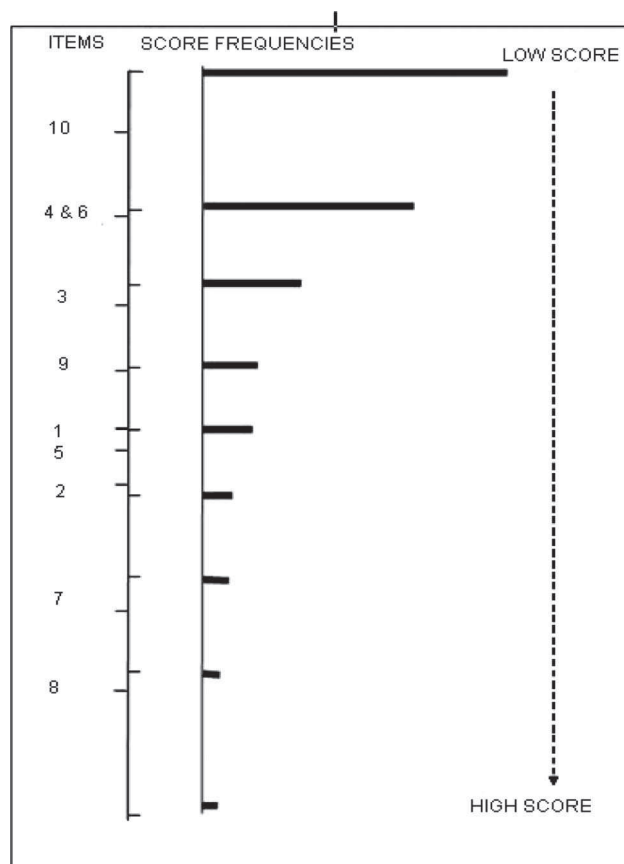


Figure 3. Plot of total score frequencies along the score continuum.

Table 2

Correlations Between the Short Sadistic Impulse Scale (SSIS) Score and Measures of Empathy, Interpersonal Relating, and Parental Bonding

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. SSIS	—																
2. EQ (total)	-0.27	—															
3. EQ (Insensitivity)	-0.41	0.62	—														
4. EQ (Social Skill)	-0.22	0.74	0.53	—													
5. EQ (Emotional Response)	-0.07	0.85	0.18	0.45	—												
6. UD (Sadistic/Intimidating) ^a	0.37	-0.12	-0.34	-0.05	0.09	—											
7. UN (Pompous/Boastful) ^a	0.29	-0.16	-0.28	-0.06	-0.01	0.62	—										
8. UC (Intrusive) ^a	0.29	-0.18	-0.15	-0.13	-0.10	0.26	0.39	—									
9. NC (Fear of Separation) ^a	0.10	-0.03	0.04	0.00	0.05	0.08	0.19	0.62	—								
10. LC (Fear of Rejection) ^a	0.17	-0.20	-0.10	-0.26	-0.11	0.05	0.15	0.37	0.48	—							
11. LN (Helpless) ^a	-0.04	-0.25	-0.27	-0.33	-0.24	-0.32	-0.27	0.14	0.28	0.36	—						
12. LD (Acquiescent) ^a	0.03	-0.07	-0.09	-0.18	-0.06	-0.23	-0.03	0.17	0.33	0.45	0.51	—					
13. ND (Suspicious) ^a	0.18	-0.21	-0.23	-0.4	-0.06	0.07	0.03	0.57	-0.07	0.30	0.22	0.20	—				
14. Maternal care	-0.19	0.10	0.18	0.17	0.00	-0.04	-0.07	-0.08	-0.01	-0.23	-0.13	-0.07	-0.29	—			
15. Maternal overprotection	0.06	-0.06	-0.02	-0.14	-0.03	-0.02	0.01	0.11	0.07	0.22	0.19	0.15	0.14	-0.42	—		
16. Paternal care	-0.25	0.10	0.19	0.16	-0.03	-0.06	-0.08	-0.13	-0.08	-0.26	-0.11	-0.15	-0.27	0.58	-0.22	—	
17. Paternal overprotection	0.04	-0.06	-0.03	-0.08	-0.06	-0.05	-0.01	0.14	0.12	0.23	0.21	0.22	0.09	-0.29	0.74	-0.27	—

Note. EQ = Empathy Quotient; UD = upper dominant octant; UN = upper neutral octant; NC = neutral close octant; LC = lower close octant; LN = lower neutral octant; LD = lower dominant octant; ND = neutral dominant octant.

^a Subscales of the Person's Relating to Others Questionnaire—3.

good fit of the Rasch model, it would be expected that scores in excess of 4 may be thought to be moving into the region of sadistic impulse. This is because the item content of the more scarcely endorsed items increasingly contains fantasy and self-gratification content consistent with a self-maintaining psychopathology. Such a tool as the SSIS may be useful in both forensic and academic fields. As previously mentioned, forensic mental health services may utilize this tool in identifying appropriate therapeutic needs of offenders. Confusion over expressions of sadism would, therefore, no longer interfere with appropriate diagnosis of disorders through the misinterpretation of offender behaviors.

Similarly, academic research in the area may benefit from use of the SSIS in terms of identifying various levels of expression of sadistic impulse, whether it is of a benign, consent-based nature or a more clinically relevant, psychopathological orientation. In order to aid the exploration and investigation of sadism as a multimodal concept, research within a variety of specialized populations is warranted. Prison populations, ranging from those in low-security to high-security institutions, may help establish the true forensic utility of the SSIS. Research among BDSM practitioners may aid in the determination of sadism as a decidedly cumulative concept. Furthermore, research focused on individuals in powerful positions of authority may address potential issues of sadism and dominance in the workplace.

This article has outlined the development, properties, and utility of a new screening tool. As a new measure, the SSIS is not without its limitations. The SSIS is a highly face-valid measure; as such the potential for socially desirable responding is a concern, as with most self-report measures. Also, this research was carried out on a

general, predominantly student, population, whereas the recruitment of more specialist populations may have better aided in the elaboration of similarities and differences across broader grouping variables. This is, therefore, an important point to take into consideration in conducting further research with the SSIS.

One of the most common assumptions in the literature on sadism is that sadistic individuals lack empathy. However, Baumeister (1997) noted that in order to be truly sadistic, one would prey on an individual's specific weaknesses and vulnerabilities in order to inflict the maximum amount of pain. It was therefore hypothesized that sadistic individuals would display some level of empathy, at least on a cognitive level. In defining *empathy*, Vitaglione and Barnett (2003) highlighted that individuals demonstrate both an emotional reaction that is congruent with another person's feelings and concern for the welfare of that person. A two-tailed correlation analysis between the SSIS scores and those of the EQ revealed a strong negative correlation. Baron-Cohen stated in his article outlining the development of the EQ that, although the scale measures both cognitive and affective components of empathy, the scale does not have a simple structure with strong loadings on two separate components of affective and cognitive empathy (Baron-Cohen & Wheelwright, 2004); rather, these components overlap greatly in the EQ. However, PCA of the EQ revealed three subfactors addressing Emotional Response, Insensitivity, and Social Skill. A negative relationship between sadistic impulse and Insensitivity provides some support for the proposition that sadistic individuals are in fact aware of the concerns of others. While sadistically inclined individuals demonstrate a certain lack of insensitivity, and this does not automatically

predicate the presence of sensitivity, there is no relationship between Emotional Response and sadism. This indicates that whereas sadistic individuals may be aware of the impact of their actions on others, their ability to understand the emotions of others is no different from that of nonsadists. In light of this situation, the significant negative correlation between the SSIS and Social Skill is consistent with the overall findings presented, as one would expect sadistic individuals to lack concern for the thoughts of others in relation to themselves (as demonstrated by the item "I find it hard to know what to do in a social situation"), given that concern for such things would likely prevent people from behaving sadistically. Thus, in keeping with Vitaglione and Barnett's (2003) definition, it appears that although sadistic impulse has no impact on emotional reaction to others' distress, sadistic individuals demonstrate some awareness of the welfare of others. Thus, the relationship between empathy and sadism undoubtedly requires further investigation.

The PROQ-3 was incorporated into this study in order to assess the level of dominance expressed by sadistic individuals in their interpersonal relationships. In Birtchnell's octagon model of interpersonal relating, the upper part of the octagon space is made up of octants defined by dominance and control in relationships. At the adaptive end, the upper dominant (UD) octant represents controlling and maintaining order in interrelations while the maladaptive end represents sadistic, intimidating, and tyrannizing interpersonal behavior (Birtchnell, 1994). It is not surprising, then, that scores in the upper (U) octants of the PROQ-3 are highly correlated with SSIS scores, whereas the lower (L) and neutral (N) scores show little relationship. Birtchnell stated that those demonstrating maladaptive U scores are dominating, sadistic, intimidating, and insulting; they have a seriously disruptive effect on interrelating and, rather than "interrelating," unreasonable individuals expect others to be accommodating (Birtchnell, 1994). In terms of sadism, one may be adaptively dominant by interrelating with individuals who wish to be submissive, while maladaptive dominants behave in an overbearing manner toward others, showing absolute disregard for the other's needs. The results demonstrated here thus support the theory that sadism incorporates maladaptive dominance. While some authors (i.e., Wilson & Seaman, 1992) have stressed that the need for power over others acts as a remedy for feelings of powerlessness, the underlying cause of this compulsion is unclear, and further research on the matter is warranted.

It was expected that individuals highly endorsing hurting behaviors would report having had weak parental bonds in their childhood. Attachment theorists posit that absence of parental care in childhood can result in dysfunctional attachments being formed, leading to antisocial and aggressive children (Reti et al., 2002). Furthermore, Britton and Fuendling (2005) stated that dysfunctional attachment in childhood can result in the development of personality disorders in later life. Correlation analysis of the PBI and SSIS scores revealed expected findings. Both the Overprotection and Care scales of the PBI were measured for father and mother separately. As expected, a moderately strong negative correlation was found for parental care, and this was consistent for maternal and paternal care. Blizard (1997) proposed that dependence on an abusive caretaker can create a cycle of relational dilemmas for the child such that the child's need for attachment will cause the child to dissociate abuse, but then self-preservation

will cause the child to deny attachment needs. Furthermore, Blizard stated that in the absence of a benign relationship to function as an alternative attachment device, "masochistic and sadistic defensive strategies may become the primary modes of interpersonal relating" (p. 38). However, absence of care, as demonstrated by the PBI, does not necessarily predicate the presence of parental abuse or neglect, and so the specific nature of this relationship ought to undergo more thorough exploration.

The findings of this research have a number of implications for forensic practice, intervention, and assessment services. First, the establishment of a reliable and valid scale for measuring sadistic interest, the SSIS, is an important achievement. Indeed, in order for the SSIS to be amenable to use in forensic institutions, this scale needs to be administered to offenders, of various degrees of seriousness, in a research context. Furthermore, given the cumulative nature of the scale, it may be of relevance to examine the distinctions between low and high scores across various categories of both offender populations and other specialist populations.

Conclusion

A reliable measure of the core feature of sadism has been presented and is recommended for research use. The scale has good psychometric properties and utility. The development of this tool was motivated by an interest in exploring the nature of the relationships between sadistic impulses and other aspects of personal and social functioning. Our focus here, on empathy, attachment, and interpersonal dominance, has provided some insight to sadistic behavior. Some indications for fruitful future research into the field of parental influences on the development of sadistic personality and the role of empathy in sadism have been noted.

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