

COGNITIVE DISTORTIONS AND SOCIAL SELF-ESTEEM IN SEXUAL OFFENDERS

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This study examined the cognitive distortions concerning sexual offending behaviour and social self-esteem of four groups of men (child molesters, rapists, violent offenders, and a control group of university students) using the Bumby RAPE and MOLEST Scales, the Social Self-Esteem Inventory, and the Marlowe-Crowne Social Desirability Scale. The Bumby RAPE Scale did not discriminate convincingly between the groups, although the Bumby MOLEST scale did find less disagreement with cognitive distortions among child molesters compared to rapists and violent offenders, but not less than university students. Social self-esteem scores varied between groups with the child molesters showing the lowest self-esteem scores. Furthermore, offenders with high self-esteem selected more pro-social responses than did offenders with low self-esteem.

Recent research concerning sexual offender behaviour has established a number of factors commonly associated with offending (Marshall, 1996; Polaschek & King, 2002). Sexual offenders have been shown to exhibit poor intimacy skills (Garlick, Marshall, & Thornton, 1996; Lisak & Ivan, 1995; Marshall, Bryce, Hudson, Ward, & Moth, 1996; Seidman, Marshall, Hudson, & Robertson, 1994;), to experience high degrees of loneliness (Marshall, et al., 1996; Seidman, Marshall, Hudson, & Robertson, 1994;), experience social difficulties (Marshall, 1996); exhibit poor coping strategies and engage in sexual coping (Marshall, Cripps, Anderson, & Cortoni, 1999), hold cognitive distortions

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(including attitudes and beliefs) related to their offending behaviour (Abel, Becker, & Cunningham-Rathner 1984; Blumenthal, Gudjonsson, & Burns, 1999; Bumby, 1996; Hanson, Gizzarelli, & Scott, 1994; Murphy, 1990; Scully & Marolla, 1984; Segal & Stermac, 1990), have a poor capacity for victim empathy (Marshall, Jones, Hudson, & McDonald, 1993; Pithers, 1994), exhibit poor attachment (Marshall, 1993; Marshall & Mazzucco, 1995; Smallbone & Dadds, 1997), and have low self-esteem (Marshall, Anderson, & Champagne, 1997; Marshall, Barbaree, & Fernandez, 1995; Marshall, Cripps, Anderson, & Cortoni, 1999; Marshall & Mazzucco, 1995).

Theories and models of sexual offending behaviour have attempted to accommodate the range of issues posited as being relevant to the genesis and maintenance of the offending behaviour. For example, Marshall, Anderson and Fernandez (1999) identify self-esteem, cognitive distortions, empathy, intimacy, loneliness, attachment styles, and sexual and non-sexual fantasies as worthy targets for a treatment regimen. The integration of these disparate factors can be conceptualised as an illustration of the poor and inadequate social learning of the offenders. Indeed, Murphy's (1990) formulation adapted Bandura's (1977) social learning theory to provide a mechanism for explaining the development and influence of certain pre-eminent features of sexual offending behaviour. Subsequently, Mealey (1995) provided a framework for conceptualising antisocial behaviour in terms of genetics, physiology, and social learning. The current study examines two of the identified factors, cognitive distortions and self-esteem, chosen because of their implication in the maintenance of offending behaviour.

Studies of cognitive distortions (or thinking errors) have found an association with sexual offending behaviour. Samenlow (1984) emphasised the importance of targeting these distorted thoughts in order to address criminal behaviour, as efforts to reduce criminal behaviour were ineffective and meaningless if the criminal did not address problematic thoughts. The importance of cognitive factors in understanding and treating of sexual offenders has been highlighted by numerous researchers (Abel, et al., 1984;

Abel & Rouleau, 1990; Field, 1978; Hanson, et al., 1994; Marolla & Scully, 1986; Stermac & Segal, 1989; Ward, Hudson, & Marshall, 1995). Marshall, et al. (1999) indicate that the cognitive distortions of sexual offenders are distinct in terms of their nature, content, and the goals they serve to achieve. For instance, Murphy (1990) identifies the cognitive distortions of child molesters as self-statements that are used to deny, minimise, justify, or rationalise their offending behaviour. Similarly, Lonsway and Fitzgerald (1994) describe rapists as holding "...generally false beliefs about rape that are widely and persistently held, and that serve to deny and justify male sexual aggression against women" (p. 134). They identified three general categories of distorted cognitive processes: justifying reprehensible conduct (moral, psychological); misperceiving the consequences of the behaviour (minimising, ignoring, misattributing); and devaluing and attributing blame to the victim (dehumanisation, attribution of blame). Hartley (1998) identified four categories of cognitive distortions in a non-custodial population of incest offenders: cognitions related to socio-cultural factors; cognitions used to overcome the fear of disclosure; cognitions used to diminish responsibility; and cognitions related to permission seeking.

Unfortunately, comparison of the cognitive distortions of rapists and child molesters has not generated clear distinctions. Pithers (1994) found that rapists and child molesters could not be distinguished (either pre- or post-treatment) by their cognitions related to rape (Burt, 1980). The researchers discount the possibility of a response bias towards pro-social responses, even though no measure of social desirability was used. Similarly, Marolla and Scully (1986) concluded that convicted rapists were not significantly different from other offenders with respect to attitudes and hostility towards women. By contrast, Stermac and Segal (1989) found that child molesters were distinguishable from other sample groups (rapists, mental health workers, community lay persons, criminal lawyers, and police officers) on the basis of their attitudes and beliefs regarding adult sexual contact with children. They determined that child molesters perceived more benefits from sexual contact, viewed the children as being more complicit, and attributed less responsibility to the adult in the vignettes pre-

sented. Their study was comprised of both intra- and extra-familial child molesters, some of whom were in treatment. In another study conducted by Hayashino, Wurtele, and Klebe (1995), extra-familial child molesters endorsed a higher level of cognitive distortion than all other comparison groups including intra-familial child molesters, rapists, non-sexual offenders with drug and alcohol problems, and community lay persons.

A number of models of sexual offending behaviour have identified low self-esteem as particularly important in explaining the context and maintenance of offending behaviour (Craig, 1990; Finkelhor, 1984; Hall & Hirschman, 1992; Hanson, et al., 1994; Marshall, et al., 1999; Marshall & Barbaree, 1990; Marshall, et al., 1995; Marshall & Mazzucco, 1995; Overholser & Beck, 1986; Segal & Marshall, 1986; Ward & Siegert, 2002). Marshall and Mazzucco (1995) found that extra-familial child molesters of female victims had significantly lower self-esteem than non-offenders of similar socio-economic status. Similarly, Marshall, et al. (1999) found that child molesters had lower social self-esteem and a higher rate of childhood sexual abuse than non-offenders. Fisher, Beech, and Browne (1999) found that child molesters had significantly lower global self-esteem, higher levels of loneliness and personal distress, and exhibited poor victim empathy compared with trainee prison officers. Unpublished work by Marshall, Maric, and Fernandez (as cited in Marshall, 1996) found that child molesters scored lower on social self-esteem than rapists, who in turn, scored lower than non-offenders. While the mechanism of the association between self-esteem and offending behaviour is not clear, a relationship between self-esteem and empathy deficits has been identified by some researchers (Marshall, Champagne, Brown, & Miller, 1997; Marshall, Hudson, Jones, & Fernandez, 1995), and it has further been suggested that deficits in both can lead to poor social competence (Marshall, et al., 1999). Furthermore, low self-esteem has been associated with sexual offenders' poor capacity to cope with stress (Marshall, et al., 1999).

Other researchers have disputed the link between low self-esteem and sexual offenses. Fernandez and Marshall (2003) found that rapists did not demonstrate a lower self-esteem than non-sexual offenders, and a review by Baumeister, Smart, and

Boden (1996) presents arguments challenging the notion that low self-esteem has a causal relationship with violence and other anti-social behaviours, including rape. Similarly, Hanson, et al. (1994) view intra-familial child molesters as "narcissistic and inhibited men" with egocentric belief systems; traits not generally suggestive of low self-esteem. Due to these conflicting findings, Ward (2002) suggests that it is perhaps more appropriate to think of offenders as having self-esteem disturbances, rather than abnormally low or high self-esteem.

The literature is unable to fully explain the roles and influence of cognitive distortions and self-esteem on sexual offending behaviour. Nevertheless, the implication in models of offending, together with the difficulty of distinguishing between those who offend against adults (rapists) and those who offend against children (molesters) stimulated the current research. It is predicted that measures of cognitive distortion and self-esteem will show differences between groups of offenders and a non-offending comparison group, as well as divergences among those who commit sexual crimes against adults compared to those who have offended against children.

METHOD

Participants

Four groups of men were invited to participate in this study: two groups of sexual offenders, a group of non-sexual violent offenders, and a comparison group of non-offending university students. The sexual offender groups comprised 100 male offenders, 64 were convicted of sexual offences against children (child molesters) and 36 were convicted of sexual offences against adults (rapists). All of the sexual offenders were undertaking N.S.W. Department of Corrective Services' treatment programs during the period of January 1999 to June 2002. The majority of rapists (86.1%) offended against victims who were extra-familial. No rapists were recorded as having offended against both extra- and intra-familial victims. Most rapists (61.1%) had offended against one victim; 19.4% against 2 victims; 11.1% against 3 victims; 2.8% against 4 victims; and 5.6% against 6 or more victims. A

large majority of rapists (94.4%) had offended against female victims with 2.8% offending against male victims and 2.8% offending against both male and female victims. In regard to the child molesters, 53.1% were recorded as having offended against extra-familial victims, 42.2% against intra-familial victims, and 4.1% against both extra- and intra-familial victims. The majority of child molesters (60.9%) had offended against one victim; 10.9% had offended against 2 victims; 4.7% against 3 victims; 7.8% against 4 victims; 1.6% against 5 victims; and 14.8% against 6 or more victims. Of the child molesters, 59.4% had offended against female victims, 28.1% against male victims, and 12.5% against both male and female victims. More rapists (63.9%) than child molesters (26.6%) had a history of prior non-sexual violence, and the rapists had spent an average of 4.71 years in custody prior to entering treatment, compared with 2.66 years for the child molesters.

The other offender group comprised 25 male offenders convicted of non-sexual violent offences in the “major assault” category, including malicious wounding, assault occasioning actual bodily harm, and grievous bodily harm. These participants were recruited in order to control for offending against the person. All were recruited from minimum security Correctional Centres within the New South Wales (NSW) Department of Corrective Services. Violent offenders with a documented history of sexual offending were excluded from the study. Of those invited for inclusion in the study, 65% consented to participate.

In addition to the offender groups, 14 male undergraduate students at the University of Newcastle, Australia volunteered to participate as a normal, non-offending, comparison group. None of the students had reported convictions for any form of violent or sexual offence. This small sample of undergraduate students is included in order to provide a comparison with an Australian community sample.

Instruments

In relation to the offenders, a review of criminal records was undertaken to confirm details of convictions and to determine any

contravention of the exclusion criteria for this study. Further, for the sexual offenders, the following additional information was collated from the records: age; marital status; whether they had a partner for two years or more; years of education; employment status at the time of the offence; occupation; number of years in jail prior to entering treatment; length of sentence; charges for previous violence; charges for prior sexual offences; number of victims; sex of victim(s); type of offence (intra-familial, extra-familial, or both); Static-99 risk level; and whether they had engaged on some form of prior intervention for their sexual offending behaviour.

The psychological assessment scales used comprised the Bumby RAPE and MOLEST scales, the Social Self-Esteem Inventory, and the Marlowe-Crowne Social Desirability Scale. The Bumby RAPE (BRS) and MOLEST (BMS) Scales (Bumby, 1996) are measures of cognitive distortions related to rape and child molestation, respectively. Both measures require respondents to indicate on a four-point likert scale the extent to which each item applies to them, with a higher score representing a greater endorsement of the respective cognitive distortion. The BMS consists of 38 items with a range of total scores being a minimum of 38 and a maximum of 152, and the BRS consists of 36 items with a total score ranging from 36 to 144. Bumby (1996) reports test-retest reliabilities for the BRS and BMS being .84 and .86, respectively, with both sharing internal consistency measures of over .96. It should be noted that the BRS and BMS have been found to be significantly correlated with each other ($r=.6093$) (Bumby, 1996). Further, the Bumby Scales have been found to be sensitive to cognitive distortions in sexual offenders (Blumenthal & Gudjonsson, 1996; Bumby, 1996).

The Social Self-Esteem Inventory (SSEI) (Lawson, Marshall, & McGrath, 1979) assesses self-confidence in social situations using 30 items with responses arranged on a 6-point Likert scale. The minimum possible total score is 30 and the maximum is 180. The scale has a test-retest reliability of .88 and has previously been shown to discriminate between child molesters and control groups and deemed capable of measuring social self-esteem in

sexual offenders (Marshall, Champagne, Sturgeon, & Bryce, 1997; Marshall, et al., 1999; Marshall & Mazzucco, 1995).

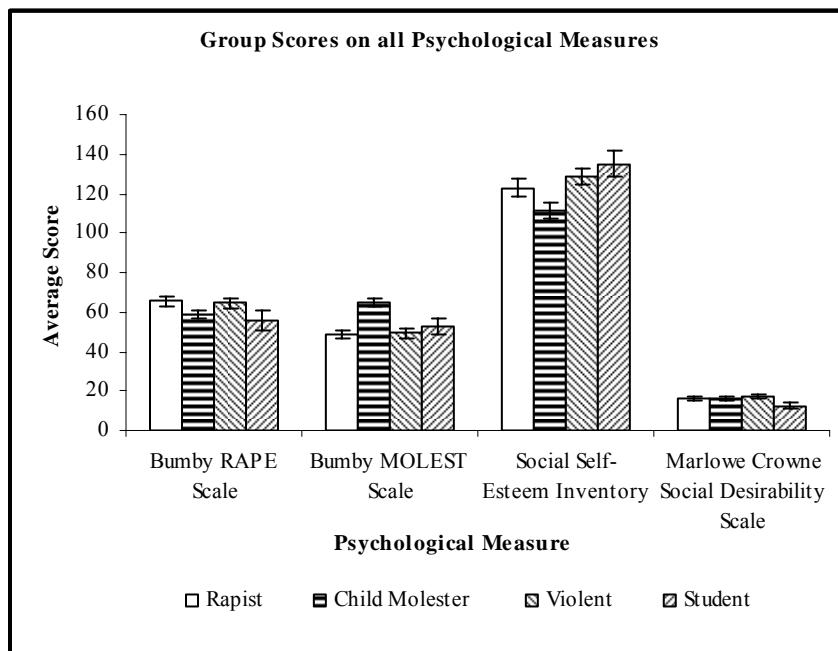
The Marlowe-Crowne Social Desirability Scale (MCSDS) (Crowne & Marlowe, 1960) measures the extent to which participants respond in a socially desirable (i.e. culturally sanctioned) manner. The scale consists of 33 items requiring true or false responses. Total scores range from 0 to 33, with internal consistency rated as acceptable ($\alpha=.77$) by Cortoni and Marshall (2001) in a report on a comparable participant group. The MCSDS has been used as a measure of social desirability in sexual offender research (Cortoni & Marshall, 2001; Hayashino, et al., 1995; Marshall, et al., 1999).

Procedure

Ethical approval was granted for this research project by the NSW Department of Corrective Services Ethics Committee and the University of Newcastle, Human Research Ethics Committee prior to the recruitment of participants and collation of data. Sexual offenders were identified from the sexual offender treatment database and violent offenders were identified by custodial staff and then approached by the researcher and invited to take part in

Table 1
Means and SD's of measured variables

	BRS Mean (SD)	BMS Mean (SD)	SSEI Mean (SD)	M-CSDS Mean (SD)
RAPISTS N= 36	65.7 (15.0)	48.9 (12.6)	122.9 (25.4)	16.2 (1.1)
CHILD MOLESTERS N= 64	59.0 (16.3)	65.0 (18.7)	111.3 (28.3)	16.0 (0.8)
VIOLENT OFFENDERS N= 25	64.4 (11.0)	49.2 (10.5)	128.7 (19.2)	17.1 (1.2)
UNIVERSITY STUDENTS N= 14	55.9 (18.0)	52.8 (15.5)	135.0 (24.3)	12.6 (1.7)

**Figure 1**

the study. Information was provided by an information sheet in the initial approach. Ability to read and comprehend the information sheet was also used as a screen to confirm adequate literacy levels. Consent to participate was granted after the participant had

been provided with a document specifying the details of the study and the information to be sought from records. The university students were recruited via notices placed on campus noticeboards throughout the University of Newcastle. Male students who were interested were provided with an information sheet and invited to participate.

RESULTS

The raw data from the dependent variables (BMS, BRS, SSEI and M-CSDS) were screened by group using descriptive statistics in order to examine the obtained distributions. The descriptive statistics confirmed the normal distribution of the SSEI and MCSDS scores (Kolmogorov-Smirnov statistic for SSEI [$p=.200$] and for MCSDS [$p=.200$]). Contrastingly, the BMS and BRS scores were not normally distributed (Kolmogorov-Smirnov sta-

tistic for BMS [$p<.001$] and for BRS [$p=.029$]). Both variables demonstrated a positive skew with the BMS scores showing much greater deviation from a normal distribution. Examination of plots revealed one outlier on the BMS, but removal of this participant's score made no difference to the distribution. Due to the skewed distributions, the data were transformed to z -scores for further analysis.

The means and standard deviations of the dependent variables by group are shown in Table 1 and illustrated in Figure 1. Figure 1 shows rapists scored highest on the BRS, followed by violent offenders, child molesters, and university students.

Table 2
Correlation between dependent variables by group

		BRS	BMS	SSEI	MCSDS
Rapists	BRS	1	0.66**	-0.49	-0.03
	BMS		1	-0.02	0.12
	SSEI			1	0.41*
	MCSDS				1
Child Moles-ters	BRS	1	0.74**	-0.01	0.01
	BMS		1	-0.24	-0.03
	SSEI			1	0.32*
	MCSDS				1
Violent Offenders	BRS	1	0.55**	-0.01	0.09
	BMS		1	0.05	0.04
	SSEI			1	0.44*
	MCSDS				1
University Students	BRS	1	0.82**	-0.6*	0.0
	BMS		1	-0.46	0.0
	SSEI			1	0.05
	MCSDS				1

On the BMS, child molesters scored highest, followed by students, rapists, and violent offenders. On the SSEI, student controls recorded the highest scores, followed by violent offenders, rapists and child molesters. Finally, on the MCSDS, average scores varied little but were highest for violent offenders, followed by rapists, child molesters, and students.

Demographic data show clear differences between students and the offender groups in age and educational level, as might be

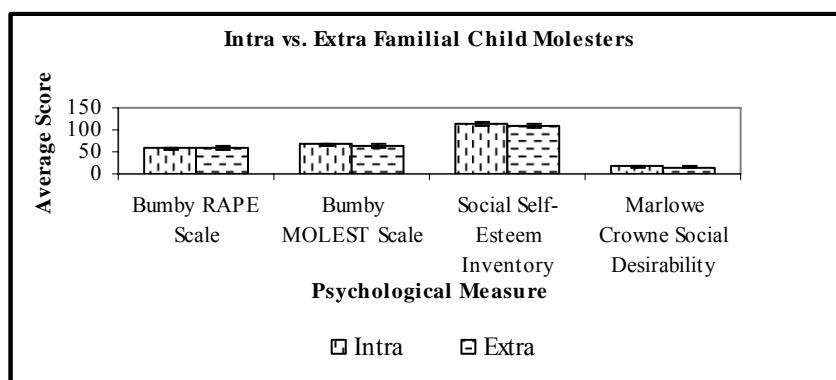


Figure 2 expected. A one-way ANOVA on the ages of the participants yielded an overall significant difference [$F(3,138) = 24.356, p < .05$] with post hocs yielding significant differences in age between students and all other groups [$p > 0.01$] and between child molesters and all other groups [$p > 0.01$].

The MCSDS scores were analysed in order to determine the extent of any bias attributable to participants providing socially desirable responses. As can be seen from Figure 1 there is little group variation in the MCSDS responses. Using age as a covariate, because of the age differences observed between the offender groups, an ANCOVA on the MCSDS results yielded no significant differences. This indicates no group differences in socially desirable responding. However, correlation between MCSDS and the other dependent variables shows a significant relationship between MCSDS scores and SSEI scores for all offender groups but not for the student comparison group. These results are shown in Table 2. The positive correlation between MCSDS and SSEI

scores for the offender groups suggests a relationship between self-esteem and socially desirable responding for the offenders that is not seen in the students.

The fact that the child molester group comprised roughly half of offenders who had offended against intra-familial victims and half who had offended against extra-familial victims, with only a small number offending against both, raised the possibility that the difference in pattern of offending could reflect a difference in psychological responding, as suggested by others (Hayashino, et al., 1995). In order to determine if there were differences in scores on the dependent variables between extra- and intra-familial child molesters, child molesters were divided into two subgroups: extra- and intra-familial molesters. The three offenders who had recorded crimes against both intra- and extra-familial victims were excluded from this analysis. Figure 2 illustrates these results.

As Figure 2 shows, there was a small variation between extra- and intra-familial subgroup scores on all the dependent variables. No statistically significant differences were found between the scores of these subgroups and hence, for all further analyses, the extra- and intra-familial child molesters scores are combined into one group.

With age as a covariate, the dependent variables were analysed by ANCOVA. In this analysis, the BRS scores approach, but do not achieve, overall significance at the 0.05 alpha level [$F(1,138)=0.343, p=0.068$]. The BMS scores show overall significance [$F(3,139)=6.461, p<.05$] with post hoc comparisons yielding differences between child molesters and rapists [$p=0.001$] and between child molesters and violent offenders [$p=0.021$]. The SSEI scores yielded a main effect for group [$F(3,139)=3.251, p<.05$] but no significant interactions, although the post hoc comparisons between child molesters and violent offenders [$p=0.07$] and between child molesters and students [$p=0.08$] approach significance.

The finding that self-esteem (SSEI) correlated positively with the measure of pro-social responding (MCSDS), while at the same time showing an interaction with the measures of cognitive distortion (BRS and BMS), suggests that the effects of self-esteem may

have clouded differences between groups on scores of cognitive distortion. In order to tease out these effects, a further ANCOVA was performed on BRS and BMS data, with SSEI as a covariate. This analysis yielded a main effect for group for the BRS scores [$F(2, 124)=4.215, p<.05$] with post hoc differences between rapists and child molesters [$p=0.03$], and a main effect for group on the BMS scores [$F(2, 125)=12.444, p<.01$] with post hoc differences between rapists and child molesters [$p>0.01$] and between violent offenders and child molesters [$p=0.001$].

DISCUSSION

The difficulty of recruiting appropriate participants in this area of research limits the extent to which results can be generalised. In the current study, the sexual offenders were all recruited after they had entered a treatment program and were theoretically receptive to the notion of behaviour change. This stands in contrast to offenders who show no interest in treatment and, indeed, may actively oppose it. As a consequence, it must be borne in mind when interpreting these data that these sexual offenders have shown some motivation to change their offending behaviour. That motivation may be particularly difficult to evaluate in relation to the measure of social desirability (the MCSDS scale). The violent offenders who participated could not participate anonymously and may have volunteered in order to present themselves in a positive light to prison authorities. However, the incarcerated participants had nothing to gain from inaccurately endorsing cognitive distortions. Furthermore, offender groups showed no difference in their pro-social responses on the MCSDS, and there was no significant correlation between the scales of cognitive distortion and social desirability. The one possible impact of providing socially desirable responses seems to have come through the relationship between the MCSDS scores and self-esteem (SSEI). The offender groups all showed a positive correlation between MCSDS and SSEI scores, indicating a tendency for offenders to show more pro-social responses the greater their self-esteem. The violent offenders were the most pro-socially biased and recorded the highest SSEI scores of the offender groups. The offender responses contrast with those of the university students who showed

the highest self-esteem and the lowest pro-social bias.

In terms of the results for cognitive distortions, all groups show a high correlation between BRS and BMS scores. It is also worth noting that the mean group scores vary over a somewhat narrow range. However, the pattern of responding shows significant differences between groups. With SSEI scores held as a covariate, the BRS scores were significantly greater for the rapists than for the child molesters, while the BMS scores were significantly greater for the child molesters than for the rapists. The pattern of responding (see Fig 1) shows a similarity between the rapists and violent offenders, with the child molesters being distinguishable from the other groups. This is contrary to the findings of both Pithers (1994) and of Marolla and Scully (1986), who did not find differences in the cognitions and attitudes of rapists, child molesters, and other offenders. Differences in the sensitivity of the instruments used may explain these conflicting results. From our data, the clear group differences suggest that the endorsement of cognitive distortions in the manner demonstrated reaffirms the notion that sexual offenders are prone to misinterpret or reinterpret social perceptions in a way that justifies, defends, and maintains their offending behaviour (Murphy, 1990).

The role played by self-esteem in maintaining the offending behaviour is rather difficult to define. Our data indicate that both rapists and child molesters show somewhat lower self-esteem than the other groups. However, only the child molesters self-esteem scores approach a statistically significant difference in group comparisons, whereas the rapists scores are only slightly below those of the violent offenders. Moreover, we find no evidence of poorer self-esteem in the extra-familial, as opposed to the intra-familial, child molesters as suggested by Hayashino, et al. (1995). Instead, the overall pattern of relative difference in self-esteem recorded here is comparable with that reported by Marshall (1996), even though our data indicate only marginally lower self-esteem in the offender groups. It may be that the poor self-esteem of the child molesters is consistent with the notion of the social inadequacy of this group. However, our results suggest that any role played by self-esteem on its own in maintaining offending behaviour is likely to be marginal. Cognitive distortions may only be part of a

complex process of social learning and development that leads to sexual offending behaviour. Nevertheless, they appear to be important in supporting and maintaining the behaviour. It seems prudent to target cognitive distortions in therapy, as Samenlow (1984) has suggested, although further outcome evaluation studies of targeted interventions are still required.

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