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Assessing the Cognitive Distortions of Child Molesters and Rapists: Development and Validation of the MOLEST and RAPE Scales¹

Kurt M. Bumby^{2,3}

The cognitive distortions of sexual offenders are considered to be influential in the etiology and maintenance of deviant sexual behavior and are commonly accepted as valid predictors of treatment potential and success, despite the lack of systematic research to support these assumptions. Contributing to this gap in the research is the shortage of psychometrically sound assessment techniques to measure these cognitive distortions. The present paper describes the development and validation of two distinct measures, the MOLEST and RAPE Scales, designed to respectively assess the cognitive distortions of child molesters and rapists. Results indicate that the MOLEST and RAPE Scales are promising clinical and research measures, demonstrating strong internal consistency and reliability, convergent and discriminative validity, freedom from a socially desirable response bias, and utility in assessing the efficacy of a cognitive restructuring treatment component. Furthermore, sexual offenders' cognitive distortions as assessed by the MOLEST and RAPE Scales were found to be related to the number of victims and duration of sexually assaultive behavior.

KEY WORDS: child molesters; cognitive restructuring; psychological assessment; rapists; sexual offending.

This research was completed by Kurt M. Bumby while a doctoral student at the University of Nebraska—Lincoln, under the supervision of David J. Hansen.

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INTRODUCTION

In recent years, comprehensive cognitive-behavioral approaches to the treatment of sexual offenders have been recommended for achieving maximal effectiveness in reducing recidivism for sexual offenses such as child molestation and rape (Marques, Day, Nelson, & West, 1994; Marshall, Jones, Ward, Johnston, & Barbaree, 1991; Marshall & Pithers, 1994). An integral component of the cognitive-behavioral approach generally involves cognitive restructuring, in which offenders' cognitive distortions are confronted and challenged. This particular treatment aspect is based on the assumption that underlying belief systems and attitudes play a significant role in the initiation and continuance of sexually assaultive behavior (Abel, Becker, & Cunningham-Rathner, 1984; Murphy, 1990; Stermac & Segal, 1989). Indeed, Yochelson and Samenow (1977) discuss the existence of numerous cognitive distortions, or "thinking errors," which become a way of life for sexual offenders and other criminals, and claim that the only effective way to prevent a chronic offender from relapsing is to identify and modify these distorted thinking patterns (see Chaps. 7-9).

Cognitive distortions related to sexual offending are learned assumptions, sets of beliefs, and self-statements about deviant sexual behaviors such as child molestation and rape which serve to deny, justify, minimize, and rationalize an offender's actions (Abel *et al.*, 1984; Murphy, 1990; Stermac & Segal, 1989). Hence, the perpetrator is able to mitigate his responsibility and make his deviant sexual behavior acceptable, allowing him to continue without the feelings of guilt, anxiety, and shame that often accompany acts which are contrary to societal norms (Abel *et al.*, 1984; Conte, 1985; Murphy, 1990). While there exist numerous clinical, descriptive, and anecdotal reports of these distorted attitudes and beliefs, there are surprisingly few empirical studies in the literature (e.g., Abel *et al.*, 1989; Burt, 1984; Cortoni, Gordon, Malcom, & Ellerby, 1991; Hanson, Gizzarelli, & Scott, 1994; Malamuth, 1984; Marolla & Scully, 1986; Pollack & Hashmall, 1991; Stermac & Segal, 1989). A particular difficulty encountered in the study of these thinking patterns is the deficiency of psychometrically sound assessment techniques. At present there are essentially only three measures which are commonly accepted for assessing the cognitive distortions of sex offenders—(1) the Abel and Becker Cognitions Scale (Abel *et al.*, 1989), (2) the Burt Rape Myth Scale (Burt, 1980), and (3) the Cognitive Distortions/Immaturity and Justification subscales of the Multiphasic Sex Inventory (Nichols & Molinder, 1984)—all of which have recognized limitations.

The Abel and Becker Cognitions Scale is a 29-item questionnaire designed to assess the cognitive distortions held by adults who sexually molest

children (Abel *et al.*, 1989). The items are scored on a 5-point Likert-type scale ranging from "strongly agree" to "strongly disagree," with lower scores indicating a greater endorsement of cognitive distortions. Investigators using the Cognitions Scale have reported that child molesters endorse significantly more distorted thoughts about child molestation than either rapists or community controls (Abel *et al.*, 1989; Stermac & Segal, 1989). Although the psychometric properties of the Cognitions Scale appear to be acceptable, it has been noted that the measure is in need of modification, in part due to its transparency, possibility for socially desirable response biases, and lack of discriminative utility within certain sexual offender groups (Abel *et al.*, 1989; Murphy, 1990). The authors further note that two of the items assess beliefs about the treatment of child molesters, rather than about child molestation itself (Abel *et al.*, 1989). Another potential problem with the Cognitions Scale is the odd number of response options (1 to 5) on the Likert-type scale, which allows individuals to take a seemingly neutral or indifferent position. As a result, individuals may avoid agreeing or disagreeing with the statements, consequently limiting the scale's usefulness in assessing cognitive distortions.

The Burt Rape Myth Scale (Burt, 1980) measures distorted beliefs about the rape of adult women. The scale includes 11 items related to justification of rape and victim blaming, with each item scored on a 7-point Likert-type scale ranging from "strongly agree" to "strongly disagree." Eight additional items relate to false accusations and the respondent's likelihood to believe various individuals' claims of rape (e.g., best friend, black woman, white woman). Research with the scale has revealed that men who sexually aggress against adult women endorse a significantly higher number of distorted beliefs about rape than do non-sexually aggressive community controls and university students (Burt, 1980, 1984; Muehlenhard & Linton, 1987; Spence, Losoff, & Robbins, 1991). However, these findings are equivocal, with other investigators finding either the opposite effect or no effect (for a review see Stermac, Segal, & Gillis, 1990). Although the psychometric properties of the scale are acceptable, little is known about either the discriminative utility within sex-offending populations or the impact of social desirability. Furthermore, nearly one-third of the items on the Rape Myth Scale do not specifically assess rape myths or cognitive distortions. Rather they relate to age, race, gender, and familiarity biases in the believability of rape allegations. Finally, similar to the Cognitions Scale, the odd number of response options (1 to 7) on the Burt Rape Myth Scale leaves open the potential for subjects to respond only in a neutral fashion, thus restricting the utility of the measure.

Finally, the Multiphasic Sex Inventory (Nichols & Molinder, 1984) includes two subscales which are designed to assess the distorted thinking

patterns of sexual offenders, although both subscales are considered to be merely experimental (Murphy, 1990; Nichols & Molinder, 1984, 1992). The Cognitive Distortion and Immaturity (CDI) subscale consists of 21 items designed to assess the perpetrator's self-accountability for his sexual offenses, as well as his propensity to adopt a victim stance. As the name implies, the 24-item Justification (Ju) subscale is intended to measure the degree to which an offender attempts to justify committing sexual crimes (Nichols & Molinder, 1984). Although the authors report that the psychometric properties of these subscales are satisfactory they note the need for refinement on both subscales (Nichols & Molinder, 1984, 1992). For example, some of the items on the CDI subscale do not appear to possess face validity and may not specifically assess cognitive distortions related to sexually assaultive behavior (Murphy, 1990). Moreover, both the CDI and the Ju subscales are susceptible to social desirability response biases, yet it is unknown to what extent they are related to such a response set. An additional problem with the CDI and Ju subscales lies in the fact that the MSI presupposes that the respondent has committed a sexual offense (Hanson *et al.*, 1994; Murphy, 1990).

Although the distorted thinking patterns of sexual offenders have been recognized as significant in the etiology and maintenance of sexual offending, there remains a lack of controlled research available on these cognitive distortions. Despite this deficit, it remains common practice for clinicians to view these beliefs as genuine indicators of treatment motivation and progress, degree of empathy and remorse, level of accountability, rehabilitation potential, and likelihood of recidivism (Marshall, Laws, & Barbaree, 1990; Murphy, 1990; Pithers, 1994; Pollack & Hashmall, 1991). Given the potential impact clinicians' judgments about sexual offenders' beliefs may have, the need for a more systematic approach to evaluating the existence and significance of these cognitions is evident.

Empirical studies addressing the efficacy of treatment approaches to alter cognitive distortions in sexual offending are scarce and have often been limited to interventions targeted at altering university students' attitudes toward rape (Gilbert, Heesacker, & Gannon, 1991; Harrison, Downes, & Williams, 1991). One of the few published studies addressing changes in *sexual offenders'* cognitive distortions involved incarcerated pedophiles and rapists participating in a group therapy segment to enhance victim empathy (Pithers, 1994). Utilizing the Cognitions Scale and Burt Rape Myth Scale, Pithers found that significant decreases in the endorsement of cognitive distortions about both child molestation and rape occurred following this treatment approach. Similarly, Barbaree (1991) employed the MSI to evaluate cognitive distortions of incarcerated child molesters and rapists and found a significant reduction from pre- to post-

treatment scores on the Justifications subscale, suggesting that the degree of minimization decreased. Marshall (1994) also described a type of group therapy designed to reduce denial and minimization of sexual offenders. The main tenets of the group consisted of the offender discussing his crime in detail, the group members questioning and supportively challenging his statements, and the facilitator reading aloud the victim's statement and the official report, followed by additional challenges by the group members (Marshall, 1994). Incest offenders, nonfamilial child molesters, and rapists were found to benefit equally from the group treatment, with significant reductions occurring in the amount of denial and minimization from pre- to posttreatment. However, standardized measures to assess these specific constructs were not employed.

The aims of the present study were threefold: (a) to develop two distinct measures, the MOLEST and RAPE Scales, for respectively assessing the cognitive distortions of men who sexually assault children and men who rape adult women, (b) to examine the psychometric properties of the MOLEST and RAPE Scales, and (c) to explore the utility of the MOLEST and RAPE Scales to assess the efficacy of a cognitive restructuring treatment component by measuring changes in the cognitive distortions of sexual offenders involved in such treatment.

METHOD

Participants

Eighty-nine adult males incarcerated in a maximum security correctional facility of the Nebraska Department of Corrections voluntarily participated in the present study. Of the total sample, 69 were sexual offenders currently involved in a cognitive-behavioral sexual offender treatment program. Forty-four had been convicted of actual or attempted sexual assault on a child or had admitted to having sexual contact with a child (child molester group), and 25 had been convicted of actual or attempted sexual assault against an adult female (rapist group). It is important to note that the participants in the child molester group were all intrafamilial offenders.

A sample of 20 adult males incarcerated for nonsexual offenses voluntarily served as a non-sexually offending inmate control group. The offenses committed by these inmates were crimes against persons and were violent in nature (e.g., murder, manslaughter, assault, armed robbery, kidnapping, terroristic threats). Each of these inmates was involved in mental health programming at the institution. Both self-reports of these inmates

Table I. Mean Age and Number of Years of Education for Each Sample

	Mean (SD)	Significance
Age		$F(2, 87) = 1.88, p > .05$
Child molesters	34.2 (7.3)	
Rapists	30.4 (10.2)	
Inmate controls	29.3 (8.7)	
Years of education		$F(2, 87) = .22, p > .05$
Child molesters	12.9 (4.4)	
Rapists	13.1 (2.9)	
Inmate controls	12.7 (2.1)	

Note. Child molesters ($n = 44$); rapists ($n = 25$); inmates ($n = 20$).

and an examination of the inmates' records were used in an attempt to ensure that they had not committed a prior sexual offense.

Analysis of variance procedures (ANOVAs) revealed that there were no significant overall age or educational differences across participant groups (see Table I). The clear majority of each group (i.e., 91% of the child molesters, 96% of the rapists, 90% of the inmate controls) was Caucasian.

Measures

The MOLEST and RAPE Scales. Two lists of cognitive distortions derived from clinical and research experiences in the assessment and treatment of child molesters and rapists were compiled to form the original 44-item MOLEST Scale and the original 36-item RAPE Scale, respectively. A limited number of items in the MOLEST and RAPE Scales were derivations of items in the Abel and Becker Cognitions Scale (Abel *et al.*, 1989) and the Burt Rape Myth Scale (Burt, 1980), respectively, although none were identical. Items on the MOLEST and RAPE Scales are scored on a 4-point Likert-type scale ranging from "strongly disagree" to "strongly agree." This 4-point choice was used to prevent a neutral or indifferent response. For each scale, responses are summed to yield a total scale score, with higher scores indicating more justifications, minimizations, rationalizations, and excuses for sexual activity with children or sexual assault of women.

Measures used to assess the convergent validity of the MOLEST and RAPE scales included the *Abel and Becker Cognitions Scale* (Abel *et al.*, 1989) and *Burt Rape Myth Scale* (Burt, 1980), respectively. In addition, the *Cognitive Distortion/Immaturity* subscale and the *Justification* subscale of the Multiphasic Sex Inventory (MSI) were included to assess convergent validity of both the new scales. Finally, the *Child Molest Lie Scale* and *Rape Lie*

Scale of the MSI were added to assess convergent validity, as both were designed to measure sexual offenders' tendencies to defend their deviance by dishonesty and denial (Nichols & Molinder, 1984).

The *Marlowe-Crowne Social Desirability Scale* (MCSDS, Crowne & Marlowe, 1960) was used to assess the discriminative validity of the MOLEST and RAPE scales. This 33-item measure, employing a true-false format, is one of the most commonly used scales to assess a socially desirable response bias. It has acceptable psychometric properties and is preferable to other social desirability measures as it is freer of association with psychopathology (Crowne & Marlowe, 1960, 1964; Saunders, 1991).

Procedures

As part of an assessment/treatment protocol and program evaluation, the MOLEST Scale, RAPE Scale, and MSI were administered to each of the convicted sexual offenders in the Inpatient Sexual Offender Treatment Program at the Lincoln Correctional Center in Lincoln, Nebraska, at the onset of their treatment. For the purpose of the present research, participants also received the Abel and Becker Cognitions Scale, Burt Rape Myth Scale, and MCSDS. To explore test-retest reliability, approximately one-half ($n = 29$) of the sexual offenders were randomly selected to receive the MOLEST and RAPE scales 2 weeks following the first administration. As the sexual offenders were involved in cognitive restructuring groups as part of treatment, test-retest reliability was not calculated for longer than 2-week intervals as the potential existed for changes in attitudes and beliefs. The nonsexually offending inmates agreed to participate in the current study, with the understanding that the research was designed to examine attitudes about sexual behaviors.

The cognitive restructuring treatment component for the sexual offenders consisted of two aspects: (1) weekly journaling about thoughts, feelings, and behaviors related to sexually assaultive behaviors as well as other nonsexual but unhealthy behaviors (e.g., verbal aggression, physical aggression) and (2) weekly 90-min therapy groups. Each group was composed of approximately 10 sexual offenders, with two treatment staff serving as cofacilitators. Throughout the groups, each offender was required to disclose fully the details of his deviant sexual behavior, with particular emphasis on the thoughts and feelings prior to, during, and following the offenses. Thinking patterns which served to blame the victim or minimize, justify, and rationalize the offense were subsequently confronted, challenged, and reframed. Throughout the course of treatment, each sexual offender is re-

quired to complete both the MOLEST and the RAPE Scales every 3 months, coinciding with his treatment team review.

RESULTS

MOLEST Scale Reliability. Corrected item-to-total analyses (i.e., item-remainder correlations) were performed on the original MOLEST Scale to determine item inclusion. Items with item-to-total correlations of less than .40 were excluded, with the exception of one item which was retained for clinical purposes. Of the original 44 items on the MOLEST Scale, 6 items were excluded, with 38 items remaining in the final version, presented in Appendix A.

The magnitude of the standardized α coefficient for the MOLEST Scale was .97, indicating excellent internal consistency and assessment of a central construct as intended. A test-retest reliability of $r = .84$ ($p < .001$) over a 2-week interval indicates that there was acceptable temporal stability for the MOLEST scale (see Table II).

Table II. Psychometric Properties of the MOLEST and RAPE Scales

	<i>r</i>	<i>p</i>
MOLEST Scale		
Reliability		
Internal consistency (α)	.9670	
Test-retest reliability	.8419	.01
Convergent validity		
Abel Cognitions Scale	-.5424	.01
Cognitive Distortions/Immaturity	.4683	.01
Justifications	.0376	.41
Lie Scale: Child Molest	-.5058	.01
Discriminative validity		
Marlowe-Crowne Social Desirability	-.0086	.48
RAPE Scale		
Reliability		
Internal consistency (α)	.9657	
Test-retest reliability	.8648	.01
Convergent validity		
Rape Myth Scale	.1243	.43
Cognitive Distortions/Immaturity	.3255	.03
Justifications	.3378	.02
Lie Scale: Rape	-.0357	.41
Discriminative validity		
Marlowe-Crone Social Desirability	-.0161	.46

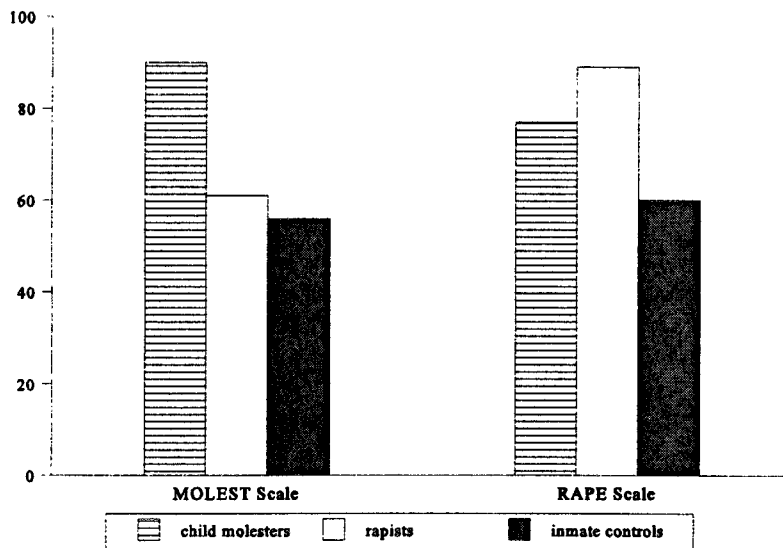


Fig. 1. Mean scores on the MOLEST and RAPE Scales.

Construct and Convergent Validity. As shown in Table II, sexual offenders who endorsed more cognitive distortions on the MOLEST Scale also subscribed to a greater number of cognitive distortions on the Cognitions Scale. In addition, subjects with higher scores on the MOLEST Scale reported more cognitive distortions and immature beliefs related to self-accountability as measured by the Cognitive Distortion/Immaturity subscale of the MSI. Furthermore, the MOLEST Scale was significantly correlated with the MSI Lie Scale for Child Molesters, which assesses the tendency to defend sexual deviance by dishonesty and denial.

Discriminative Validity. The MOLEST Scale was found to be free from a socially desirable response bias, as evidenced by a lack of significant correlation with the Marlowe-Crowne Social Desirability Scale (Table II). Furthermore, using a one-way ANOVA, a significant effect was found between groups on the MOLEST Scale [$F(3,85) = 19.13, p = .001$]. As displayed in Fig. 1, follow-up analyses using Scheffe's test revealed that the MOLEST Scale discriminated between the child molester group and both the rapist and the non-sexually offending inmate groups. Child molesters endorsed significantly more cognitive distortions on the MOLEST Scale than either the rapist or the inmate groups, which did not differ significantly on the measure.

RAPE Scale

Reliability. To determine item selection for the final RAPE Scale, corrected item-to-total analyses (i.e., item-remainder correlations) were performed on the original scale, with items having item-to-total correlations of less than .40 being excluded. Two items on the original RAPE Scale fell below the established item-to-total threshold, although these items were retained for clinical use. Hence, the final RAPE Scale remained in its original 36-item form, presented in Appendix B. Similar to the MOLEST Scale, the standardized α coefficient for the RAPE Scale was .96, indicating excellent internal consistency and measurement of a primary construct. Temporal stability of the RAPE Scale was high as well, with a test-retest correlation of $r = .86$ ($p < .001$), over a 2-week interval.

Construct and Convergent Validity. Sexual offenders who adhered to a greater number of cognitive distortions on the RAPE Scale also endorsed more cognitive distortions and immature beliefs related to self-accountability as measured by the Cognitive Distortion/Immaturity subscale of the MSI and justifications for sexual offending behaviors on the Justifications subscale of the MSI (see Table II). The RAPE Scale did not correlate significantly with the Burt Rape Myth Scale, which was not surprising given the criticisms of Burt's scale noted previously.

Discriminative Validity. The RAPE scale was found to be unrelated to a socially desirable response bias, as evidenced by its lack of significant correlation with the Marlowe-Crowne Social Desirability Scale. Additionally, a one-way analysis of variance procedure revealed a significant effect between groups on the RAPE Scale [$F(2,82) = 7.28, p = .001$]. Follow-up analyses using Scheffe's test indicated that the RAPE Scale discriminated between the rapist and the nonsexually offending inmate groups, with rapists endorsing more cognitive distortions about rape (see Fig. 1). Although the rapists' mean score on the RAPE Scale was higher than the mean score of the child molesters, the difference was not significant. The child molesters endorsed significantly more items on the RAPE Scale than the non-sexually offending inmates.

Assessing Change in Cognitive Distortions with Treatment

For exploratory purposes, a multivariate analysis of variance (MANOVA) within-subjects procedure was employed to evaluate the effects of the cognitive restructuring treatment component on sexual offenders' endorsement of items on the MOLEST and RAPE Scales. As only a limited number of offenders had completed both scales across the 9-month time period, the data for both sexual offender groups were pooled for analysis.

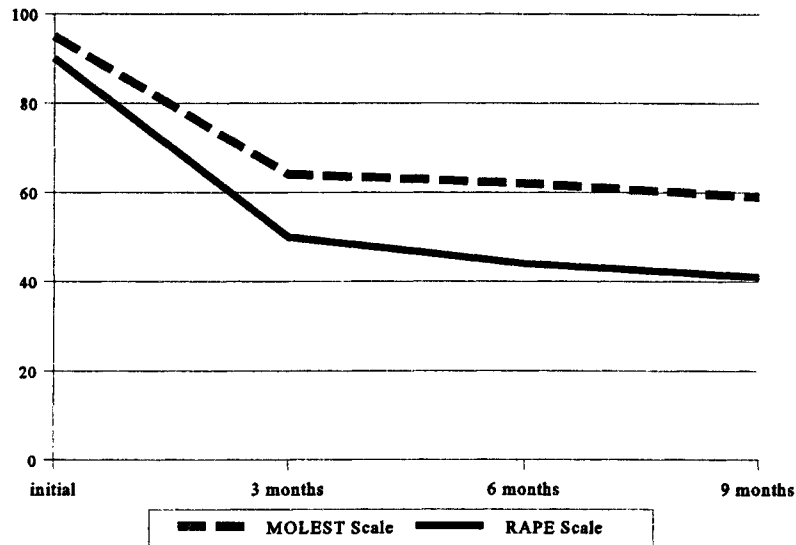


Fig. 2. Mean scores on the MOLEST and RAPE Scales throughout treatment.

A significant effect over time was found on the MOLEST Scale [$F(3,24) = 26.59, p < .001$], presented in Fig. 2. Follow-up pairwise comparisons using t tests revealed a significant reduction in cognitive distortions about child molestation between the initial assessment and the first 3-month time period ($t = 7.04, p < .001$) and between the 3-month and the 6-month interval ($t = 2.85, p < .01$). There was no significant change between the 6-month and the 9-month interval.

Similarly, a significant effect was found when evaluating the effects of cognitive restructuring treatment on the endorsement of the RAPE Scale items over time [$F(3,30) = 51.43, p < .001$]. The pairwise t -test follow-ups revealed a significant decrease in cognitive distortions about rape between the initial assessment and the 3-month interval ($t = 10.54, p < .001$) and between the 3-month and the 6-month span ($t = 2.77, p = .01$). As was the case with the MOLEST scale, there was no significant change on the RAPE scale between the 6-month and the 9-month interval.

Relationship Between Scales and Sexual Offense Histories

Post hoc exploratory analyses were performed to investigate the relationship between sexual offenders' endorsement of cognitive distortions on

Table III. Pearson Correlations of the MOLEST and RAPE Scales with Sexual Offense Histories

	MOLEST	RAPE	Victims	Years
MOLEST Scale	1.0000			
RAPE Scale	.6093**	1.0000		
Number of victims	.2187*	.0761	1.0000	
Years of offending	.3137*	.2965*	.4869**	1.0000

Note. $N = 69$.

* $p < .01$.

** $p < .001$.

the MOLEST and RAPE Scales and their sexual offense histories. As shown in Table III, Pearson-product moment correlational analyses revealed that the MOLEST and RAPE Scales were found to be significantly correlated with one another. Furthermore, a significant relationship was found between molesters' scores on the MOLEST Scale and the number of victims. The number of items endorsed on the MOLEST Scale increased with the number of victims. In addition, there was a significant relationship between the number of years of molesting behaviors and the endorsement of items on the MOLEST Scale, with the cognitive distortions increasing with the number of years of molesting. Finally, a significant relationship was found between rapists' scores on the RAPE Scale and number of victims, with the endorsement of distorted beliefs and attitudes about rape increasing with the number of victims. No significant relationship was found between rapists' scores on the RAPE Scale and the number of years of sexually assaultive behavior.

DISCUSSION

The current investigation provides evidence that the MOLEST and RAPE Scales are valid and reliable measures of the cognitive distortions held by child molesters and rapists, respectively. The MOLEST Scale was found to discriminate child molesters from rapists and nonsexually assaultive inmates, a finding consistent with previous research indicating that child molesters hold more distorted beliefs about the acceptability of sexual activity with children (Abel *et al.*, 1989; Stermac & Segal, 1989). Particularly noteworthy was the finding that child molesters and rapists did not differ significantly on the endorsement of items on the RAPE scale, paralleling the reports of other investigators who found no significant differences between rapists' and child molesters' beliefs about the sexual assault of women (Pithers, 1994; Segal & Stermac, 1984).

One hypothesis for the latter finding is that child molesters may have more cognitive distortions about sexually offending behavior in general and, thus, may tend to justify numerous forms of sexual deviance rather than exclusively holding distorted beliefs about child molestation. The fact that, on the RAPE Scale, child molesters in the current study endorsed approximately the same proportion of items as rapists and significantly more items than the non-sexually offending inmates offers indirect support for this hypothesis. It has also been suggested that rapists, when under arousal conditions similar to those under which they actually offended (e.g., anger, hatred, power thrust), may more readily endorse victim blaming and justificatory statements about the rape of women, at which point a significant difference between the groups might emerge (W. D. Pithers, personal communication, Aug. 3, 1994). Such speculation would resemble a "state versus trait" characterization of rapists. Finally, it may be that society views the crime of rape as more acceptable than child molestation, and therefore the endorsement of victim blaming and justificatory statements about rape would be expected not only from rapists, but also from child molesters and nonsexual offenders. For example, as demonstrated by studies on the prevalence of rape myths, even non-sexually offending populations (e.g., community samples, university students, police officers, counselors) have been found to adhere to these rape myths to some degree (Bumby, 1992; Burt, 1980, 1984; Feild, 1978; Stermac *et al.*, 1990). However, when the items involve sexual activity with children, non-offending individuals as well as adult rapists are unlikely to endorse them (Abel *et al.*, 1989; Bumby, 1992; Hanson *et al.*, 1994; Stermac & Segal, 1989; Stermac *et al.*, 1990). With this in mind, one might have considered the similar responses of the rapists and child molesters on the RAPE Scale as reflecting a more global societal tendency to minimize and justify the sexual assault of women. However, given the significantly lower scores of the inmate control group in the current study, the societal acceptance hypothesis does not appear to be overwhelmingly supported. Future research must address these issues and attempt to explore the clinical significance, if any, of these differences.

Of practical interest in the present investigation was the demonstration that the MOLEST and RAPE Scales have utility in assessing the efficacy of cognitive restructuring elements in sexual offender treatment. Following the initial 3 months of cognitive restructuring, plots of the offenders' mean scores on the scales reflected a significant decrease in the cognitive distortions about both child molestation and rape. This was followed by a further significant decrease during the subsequent 3 months, then reaching a plateau in the next 3 month interval. With respect to the tapering off of offenders' scores, the following issues must be addressed: (a) whether this leveling off is a reflection of the sexual offenders reaching a plateau in the

cognitive restructuring treatment component; (b) whether the process of taking the consecutive mean scores across subjects and sex offender groups is unrepresentative of the true pattern of change due to extreme variability within and between groups; and (c) whether the MOLEST and RAPE Scales are in need of more subtle, less transparent items which are less susceptible to a treatment expectation response bias. Further assessment of these cognitive distortions over longer periods of time may be beneficial in addressing these issues.

The present findings suggest that the cognitive distortions of sexual offenders may be associated with a longer duration of offending and an increased number of victims. Future research should address these issues, while attempting to discern whether these cognitive distortions are etiologically significant or are post hoc rationalizations and justifications for deviant sexual behavior.

CONCLUSION

Sexual offender treatment outcome literature indicates that, to be maximally effective, treatment must be comprehensive and cognitive-behaviorally based (Marques *et al.*, 1994; Marshall *et al.*, 1991; Marshall & Pithers, 1994). Unfortunately, when describing the outcomes of these treatment approaches, no data are usually presented to describe the modification of offenders' cognitive distortions. Clearly there is a specific need for empirical investigation into the efficacy of cognitive restructuring modules in treatment programs, particularly in light of the assertion that offenders who hold distorted attitudes and beliefs about sexual contact with children and/or sexual assault of women are less likely fully to engage in the treatment process (Stermac & Segal, 1989). Indeed, Marshall and Pithers (1994) note that recidivism rates alone may not be sufficient in determining treatment efficacy and, further, stress the importance of utilizing paper-and-pencil measures to assess precursors to sexual offending, such as cognitive distortions. Little systematic research has been conducted in this area, due in part to the shortage of psychometrically sound measures to assess sexual offenders' faulty thinking processes. The present study suggests that the MOLEST and RAPE Scales are reliable and valid measures of the cognitive distortions of sexual offenders and that these scales may be useful in assessing the beliefs of sexual offenders prior to, during, and following treatment. Should future research on the MOLEST and RAPE Scales provide additional support for their utility, the scales may be promising clinical and research measures for the assessment and treatment of child molesters and rapists.

**APPENDIX A: THE MOLEST SCALE WITH CORRECTED
ITEM-TO-TOTAL CORRELATIONS**

1. I believe that sex with children can make the child feel closer to adults. (.8647)
2. Since some victims tell the offender that it feels good when the offender touches them, the child probably enjoys it and it probably won't affect the child much. (.8376)
3. Many children who are sexually assaulted do not experience any major problems because of the assaults. (.7967)
4. Sometimes, touching a child sexually is a way to show love and affection. (.7889)
5. Sometimes children don't say no to sexual activity because they are curious about sex or enjoy it. (.7850)
6. When kids don't tell that they were involved in sexual activity with an adult it is probably because they liked it or weren't bothered by it. (.7758)
7. Having sexual thoughts and fantasies about a child isn't all that bad because at least it is not really hurting the child. (.7721)
8. If a person does not use force to have sexual activity with a child, it will not harm the child as much. (.7669)
9. Some people are not "true" child molesters—they are just out of control and made a mistake. (.7534)
10. Just fondling a child is not as bad as penetrating a child, and will probably not affect the child as much. (.7491)
11. Some sexual relations with children are a lot like adult sexual relationships. (.7321)
12. Sexual activity with children can help the child learn about sex. (.7318)
13. I think child molesters often get longer sentences than they really should. (.7248)
14. Kids who get molested by more than one person probably are doing something to attract adults to them. (.7211)
15. Society makes a much bigger deal out of sexual activity with children than it really is. (.7206)
16. Sometimes child molesters suffer the most, lose the most, or are hurt the most as a result of a sexual assault on a child more than a child suffers, loses, or is hurt. (.7011)
17. It is better to have sex with one's child than to cheat on one's wife. (.6835)
18. There is no real manipulation or threat used in a lot of sexual assaults on children. (.6764)
19. Some kids like sex with adults because it makes them feel wanted and loved. (.6695)
20. Some men sexually assaulted children because they really thought the children would enjoy how it felt. (.6629)
21. Some children are willing and eager to have sexual activity with adults. (.6492)
22. During sexual assaults on children, some men ask their victims if they liked what they were doing because they wanted to please the child and make them feel good. (.6484)
23. Children who have been involved in sexual activity with an adult will eventually get over it and go on with their lives. (.6298)
24. Some children can act very seductively. (.6193)
25. Trying to stay away from children is probably enough to prevent a molester from molesting again. (.6028)
26. A lot of times, sexual assaults on children are not planned... they just happen. (.6022)
27. Many men sexually assaulted children because of stress, and molesting helped to relieve that stress. (.5960)
28. A lot of times, kids make up stories about people molesting them because they want to get attention. (.5635)
29. If a person tells himself that he will never molest again, then he probably won't. (.5442)
30. If a child looks at an adult's genitals, the child is probably interested in sex. (.5379)
31. Sometimes victims initiate sexual activity. (.5363)
32. Some people turn to children for sex because they were deprived of sex from adult women. (.5035)
33. Some young children are much more adult-like than other children. (.4990)

34. Children who come into the bathroom when an adult is getting undressed or going to the bathroom are probably just trying to see the adult's genitals. (.4944)
35. Children can give adults more acceptance and love than other adults. (.4721)
36. Some men who molest children really don't like molesting children. (.4721)
37. I think the main thing wrong with sexual activity with children is that it is against the law. (.4426)
38. If most child molesters hadn't been sexually abused as a child, then THEY probably never would have molested a child. (.3302)

APPENDIX B: THE RAPE SCALE WITH CORRECTED ITEM-TO-TOTAL CORRELATIONS

1. Men who commit rape are probably responding to a lot of stress in their lives, and raping helps to reduce that stress. (.8126)
2. Women who get raped probably deserved it. (.7912)
3. Women generally want sex no matter how they can get it. (.7712)
4. Since prostitutes sell their bodies for sexual purposes anyway, it is not as bad if someone forces them into sex. (.7687)
5. If a woman does not resist strongly to sexual advances, she is probably willing to have sex. (.7635)
6. Women often falsely accuse men of rape. (.7598)
7. A lot of women who get raped had "bad reputations" in the first place. (.7555)
8. If women did not sleep around so much, they would be less likely to get raped. (.7493)
9. If a woman gets drunk at a party, it is really her own fault if someone takes advantage of her sexually. (.7493)
10. When women wear tight clothes, short skirts, and no bra or underwear, they are asking for sex. (.7471)
11. A lot of women claim they were raped just because they want attention. (.7357)
12. Victims of rape are usually a little bit to blame for what happens. (.7330)
13. If a man has had sex with a woman before, then he should be able to have sex with her any time he wants. (.7190)
14. Just fantasizing about forcing someone to have sex isn't all that bad since no one is really being hurt. (.7147)
15. Women who go to bars a lot are mainly looking to have sex. (.7144)
16. A lot of times, when women say "no" they are just playing hard to get, and really mean "yes." (.7022)
17. Part of a wife's duty is to satisfy her husband sexually whenever he wants it, whether or not she is in the mood. (.6914)
18. Often a woman reports rape long after the fact because she gets mad at the man she had sex with and is just trying to get back at him. (.6857)
19. As long as a man does not slap or punch a woman in the process, forcing her to have sex is not as bad. (.6716)
20. When a woman gets raped more than once, she is probably doing something to cause it. (.6691)
21. Women who get raped will eventually forget about it and get on with their lives. (.6518)
22. On a date, when a man spends a lot of money on a woman, the woman ought to at least give the man something in return sexually. (.6386)
23. I believe that if a woman lets a man kiss her and touch her sexually, she should be willing to go all the way. (.6380)
24. When women act like they are too good for men, most men probably think about raping the women to put them in their place. (.6353)
25. I believe that society and the courts are too tough on rapists. (.6136)
26. Most women are sluts and get what they deserve. (.6033)

27. Before the police investigate a woman's claim of rape, it is a good idea to find out what she was wearing, if she had been drinking, and what kind of a person she is. (.6016)
28. Generally, rape is not planned—a lot of times it just happens. (.5738).
29. If a person tells himself that he will never rape again, then he probably won't. (.5647)
30. A lot of men who rape do so because they are deprived of sex. (.5609)
31. The reason a lot of women say "no" to sex is because they don't want to seem loose. (.5305)
32. If a woman goes to the home of a man on the first date, she probably wants to have sex with him. (.5146)
33. Many women have a secret desire to be forced into having sex. (.4910)
34. Most of the men who rape have stronger sexual urges than other men. (.4422)
35. I believe that any woman can prevent herself from being raped if she really wants to. (.3654)
36. Most of the time, the only reason a man commits rape is because he was sexually assaulted as a child. (.3103)

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