Journal of Forensic Social Work, 2:94–107, 2012

ISSN: 1936-928X print/1936-9298 online
DOI: 10.1080/1936928X.2012.742477

Routledge
Taylor & Francis Group

Correlates of Modus Operandi (Coercion and Force) Among Male Sexually Victimized Adolescent Sexual Abusers: An Exploratory Study

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Researchers have noted that there are few empirical investigations on the factors associated with adolescent sexual abusers' modus operandi (MO) (i.e., strategies used to coerce and/or force victim compliance). Understanding MO is critical for effective prevention and treatment. The extant literature has found that certain developmental experiences and contextual factors, such as a history of victimization and family characteristics, may be related to the use of specific MO strategies. New to the literature, this present study also investigated the relationship between substance abuse and MO. Physical neglect and being told by a third person to sexually abuse someone significantly predicted the severity of MO of male incarcerated adolescent sexually victimized sexual offenders (N = 148). Other forms of trauma and substance abuse were not predictors of MO. Research and treatment implications for forensic social workers are discussed.

For over 30 years, researchers have been investigating the correlates and developmental trajectories to adolescent sexual offending. Although substantial improvements have been made in terms of the ability of forensic evaluators to assess the likelihood of reoffending, understanding, and building our knowledge about the possible static (historical) and dynamic (changeable with intervention) risk factors associated with sexual offending requires

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further investigation (Ryan, Leversee, and Lane, 2010). Method of operation or modus operandi (MO) is one of these areas of risk requiring additional research. MO involves behavioral characteristics and associated risks for sexual abuse that assist researchers in delineating subgroups of youth with sexually harmful behaviors (Kaufman, Hilliker, & Daleiden, 1996; Leclerc, Beauregard & Proulx, 2008). Historically, the focus of MO research has been primarily on adult sex offenders (Kaufmann et al., 1998), which includes research on MO of convicted sex offenders who exploit children using the Internet (Malesky, 2007). Understanding MO includes an investigation of offender–victim interactions in achieving victim compliance, such as the level of force used in the sexual assault of the victims. Incorporating the empirical findings regarding MO (i.e., how an offender identifies a victim and gains compliance) and related correlates to sexual offending into effective prevention and intervention programs and policies is important to the field of forensic social work.

Authors of the extant literature have reported that certain individual and contextual risk factors (e.g., deviant sexual fantasies and relationship to the victim) may be related to the use of specific MO strategies (Kaufman et al., 1998). Moreover, researchers have found correlations between experiences of trauma, severity of offending, and MO among juveniles (Burton, 2003).

Researchers who have investigated the nature of MO among adolescent sexual offenders have reported that these youth are quite diverse in their behaviors, and that MO varied by the victims' age, gender, and relationship (i.e., intra versus extra familial; Leclerc & Tremblay, 2007; Kaufman et al., 1996). These researchers also found that adolescent offenders reported the utilization of more diverse MOs than their adult counterparts (Kaufman et al., 1998). In addition, the behavioral characteristics associated with some of the youth's abusive behaviors may be related to sexual gratification, may involve more offense-related planning (i.e., the abuse is not driven by impulsivity), and may be quite intentional, progressively escalating to violence when desensitization strategies (i.e., desensitization of the victims to their victimization) fail to work (Leclerc & Tremblay, 2007). MO has been found to be related to situational factors, that is, different abusive strategies may be utilized based on where the crimes are committed. The use of more sophisticated manipulative strategies to achieve victim compliance and to maintain silence tend to occur in the offender's home, where the youth and the victim are left alone (Leclerc et al., 2008).

Although there is a body of research investigating these abusive strategies, there are substantial gaps in the literature. For example, increase in risk incurred by specific combinations of risk factors (e.g., maltreatment histories and substance abuse) and the potential covariates or related variables of MO are understudied.

TRAUMATIC EXPERIENCES AND MO

Etiological explanations of male adolescent sexual aggression frequently begin with discussion of a victim-to-victimizer model (Freeman-Longo, 1986; Ryan, 1989; Ryan et al., 2010), wherein exploration of potential intergenerational transmission of violence based on the youth's childhood sexual victimization is central. Historically, research on childhood sexual victimization among adolescent sexual abusers has demonstrated that it is a developmental pathway to offending behavior (Burton, 2003; Fehrenbach, Smith, Monasterky, & Deisher, 1986; Longo, 1982).

Researchers of the victim-to-victimizer model have highlighted that the severity of sexually victimized adolescent sexual abusers' own childhood victimization may predict the severity of their later sexual offenses (Burton, 2003), and that sexually victimized adolescent abusers tend to repeat the same sexually abusive acts that they experienced as victims (Veneziano, Veneziano, & LeGrand, 2000). The findings of a recent study comparing sexually victimized and nonsexual victimized youthful sexual offenders showed the that sexually victimized group had more severe developmental challenges (e.g., traumatic sequelae and personality problems) and behavioral antecedents (e.g., sexual aggression and nonsexual criminality; Burton, Duty, & Leibowitz, 2011). In addition, Sigurdsson, Gudjonsson, Asgeirsdottir, and Sigfusdottir (2010), using Beech and Ward's etiological model of risk, found that sexual victimization, among other variables such as violence in the home and poor self-regulation, distinguished sexual abusive youth.

Although Prescott and Levenson (2007) highlighted that there are no empirically validated methods for assessing the likelihood that a sexually abusive youth will recidivate, there is one actuarial measure in development that indicates that a history of sexual victimization increases the risk of reoffense for male adolescent sexual abusers: the Juvenile Sexual Offense Recidivism Risk Assessment Tool (JSORRAT-II; Epperson, Ralston, Fowers, DeWitt, & Gore 2006). Research on other types of victimization, such as physical neglect, is relatively rare among adolescent sexual abusers. Researchers have found that juvenile sex abusers more frequently have experienced multiple types of trauma including neglect, compared with nonsexual offenders (Jonson-Reid & Way, 2001; Van Wijk et al., 2006). Additional research on neglect in particular is needed because the limited extant literature indicates that physical abuse and neglect may result in problems with impairments in social cognition (Kaplan, Pelcovitz, & Labruna, 1999), which is related to many types of offending.

Regarding the relationship between trauma and MO, one study found no relationship between the MO scales on the Modus Operandi Questionnaire developed by Kaufman and colleagues and trauma (Kaufman et al., 1996). Nevertheless the findings offered some insight into the strategies and characteristics of adolescent sexual abusers; namely, male offenders who had a history of childhood victimization were more likely to select male and younger victims. Notably, that study involved an analysis of subgroups, and

trauma was analyzed as a dichotomous grouping variable versus as a continuous measure.

SUBSTANCE ABUSE

Researchers of nonsexual juvenile delinquency have often reported high rates of substance abuse by these youth. For example, McClelland, Elkington, Teplin, and Abram (2004) examined substances use disorders (SUDs) among juvenile detainees at a juvenile temporary detention center. Half of the sample interviewed had at least one SUD, and 21% percent of youth were assessed as having two or more SUDs. In addition, substance use is often related to antisocial behaviors, particularly violent behavior (Wei, Loeber, & White, 2004). However, researchers have concluded that the association between substance use and violence among youth is spurious, often suggesting no causal relationship. Indeed the possible causal relationship between substance abuse and violent behavior and/or sexual aggressive behavior has been debated in the literature (Fergusson, Lynskey, & Horwood, 1996; Testa, 2002) and as is currently unresolved.

In the extant literature on juvenile sexual offenders and substance abuse, some researchers have suggested that substance use is frequently associated with juvenile sexual offending (Hsu & Starzynski, 1990; Mio, Nanjundappa, Verleur, & De Rios, 1986; Nanjundappa, Verleur, & De Rios, 1986; Tinklenberg, Murphy, Murphy, & Pfefferbaum, 1981; Van Ness, 1984). In a recent paper, Caserta and Burton (2011) reported that 61% of sexual offenders ($n = 298$) in their incarcerated juvenile offender sample reported that they consumed alcohol, compared with 48% of nonsexual offenders ($n = 141$). Other researchers have contradicted these findings, suggesting that the relationship between substance use and juvenile sexual offending is spurious (Lightfoot & Barbaree, 1993), and that juvenile sexual abusers may have fewer substance abuse problems compared with delinquent youth (Seto & Lalumière, 2010). However, no research could be located on the relationship between substance abuse and MO among sexually abusive youth.

In this relatively unexplored area, the MO of male adolescent sexual offenders, and its correlates and relationship to offenses, need further research. Therefore, this fills gaps in the literature by investigating the relationships between childhood trauma and substance abuse as possible predictors of MO associated with the youths' sexual crimes.

METHODS

Youth who responded "yes" to a simple yes/no question regarding sexual victimization ($n = 138$) or who in another set of questions responded to questions regarding who sexually abused them, what sexual abusers did to them, how forceful they were sexually abused, or the age they were when

they were sexually victimized ($n = 10$) were categorized as being sexually abused resulting in a sample of 148 sexually victimized males adolescents incarcerated for sexual offenses. The average age of the youth were 16.72 years ($SD = 1.77$ years) and they reported completed the 9th grade (average grade completed in the sample = 9th grade).

Nearly 50% of the youth (49%, $n = 72$) were Caucasian, 27.9% ($n = 41$) were African American, 7.5% ($n = 11$) were Native American, and the remainder were Hispanic/Latino (5.4%, $n = 8$), Other (6.1%, $n = 9$), or did not respond to the question regarding race (4.1%, $n = 6$).

A perpetration severity score, using a 15-point rank order scale which ran from 1 (*exposure*) to 15 (*penetration, oral sex, exposure, and fondling*) was used to assess sexual crime severity level. Youth were asked about every sexual crime they have committed and this measure combined the various acts into one score. The average perpetration severity level across the sample was 9.00 ($SD = 4.87$ levels), and the median score was 9. A score of 9 equals penetration (vaginal or anal) and exposure.

MEASURES

The Self Report Sexual Aggression Scale (SERSAS) is a multi-item inventory used in prior studies (Burton, Miller, & Shill, 2002; Burton, 2003). The scale measures sexually aggressive behaviors over the lifespan, including victimization, perpetration and MO (i.e., use of favors, threats, or force). Questions about fondling, rape, penetration, etc. are all prefaced with "Have you ever conned or forced someone to …?" These are matched by a parallel set of questions regarding their own sexual victimization. This instrument is a checklist of relationships with a previous 8-week test–retest agreement of r = .96, for a small sample (Burton, 2000). From this scale, a score that indicates the severity of their MO was calculated. This score is computed as follows: 1 = they used games to convince their victim to have sex; 2 = they used threats; 3 = they used games and threats; 4 = they used force on their victims; 5 = they used force and games; 6 = they used force and threats; and 7 = they used force and games and threats. Similarly, the perpetration score (described above) was calculated. Parallel scores were calculated to assess their experiences of sexual victimization resulting in a victimization score (1–15) and a victimization MO score (1–7). All of these calculations result in scores that capture the highest form of violence and force used during their own victimization or offenses.

Elliott, Huizinga, and Ageton's (1985) 32-item Self-Reported Delinquency (SRD) measure was used to assess for non sexual criminal behavior committed by the youth. Participants were asked to respond to SRD items based on the year prior to their arrest. The scale has 32 questions using a 7-point frequency scale from *0* (never) to 7 (2–3 times per day) on questions ranging

from drug use to aggression. The instrument has several subscales including Alcohol Use, Drug Use, Felony Assault, Felony Theft, General Delinquency, Property Damage, Public Disorderly, Robbery, and Selling Drugs. The Alcohol Use subscale had sound inter-item reliability with Cronbach's $\alpha = .81$. However, the Drug Use subscale of the SRD had unacceptable inter-item reliability ($\alpha = .47$). Other researchers have corroborated this finding (E. Letourneau, personal communication, February 5, 2008). Therefore, the three drug use items (marijuana or hash, cocaine or crack, or "other drugs") were collapsed into one dichotomous item that indicated a positive response to any of these questions versus a scalar measure of frequency. Ultimately, because of multicollinearity in the multivariate analysis we combined the six drug and alcohol items into Substance Abuse scale with a Cronbach's $\alpha = .75$.

The Childhood Trauma Questionnaire (CTQ) (Bernstein & Fink, 1998) is a 34-item scale that provides a brief and relatively noninvasive screening of traumatic experiences in childhood. All of the subscales have acceptable to good internal consistency in this study with Cronbach's alphas on the five CTQ subscales ranging from .78 (Physical Neglect) to .98 (Emotional Abuse).

ADMINISTRATION

After appropriate institutional review board approval and consents were obtained, confidential data were collected from youth with sexual and nonsexual offenses in six residential facilities in a Midwestern state. The surveys were administered in small ($n = 8$–12) group format in classrooms in the participants institutional settings. However, participants were separated to ensure that they could not view each other's responses. The youth were not provided with an incentive to complete the surveys. For those few participants who struggled with reading ($n = 2.5\%$), the surveys were read aloud by trained graduate student research assistants.

RESULTS

MO

The participants' Victimization MO score had a median response of 3.0 and a mean response of 3.29 ($SD = 2.23$ points; see Table 1). The participants' MO score median response was 1 and the mean response was 2.53 ($SD = 2.18$). The two scale scores were significantly different, $t(118) = 3.22$, $p = .002$.

It should be noted that part of what composes a small group of youth's MO may have included being told to sexually victimize someone by someone else. For example, a father may tell one sibling to abuse his younger sibling: 6.8% ($n = 10$) of the youth indicted this was the case.

TABLE 1 Modus Operandi Level of Force Score

	Victimization		Perpetration	
Score	Frequency	%	Frequency	%
1 = games	51	34.7	75	51.0
2 = threats	10	6.8	2	1.4
3 = games and threats	12	8.2	13	8.8
4 = force	19	12.9	6	4.1
5 = force and games	9	6.1	12	8.2
6 = force and threats	18	12.2	16	10.9
7 = force and games and threats	15	10.2	124	84.4
Total	134	91.2	23	15.6
Missing	13	8.8	23	15.6
Total	147	100	147	100.0

Trauma

The youth's victimization severity score average was 10.22 ($SD = 4.89$ points) with a median of 11.00 (see Table 2). This was significantly higher than the youths perpetration score, $t(125) = 2.075$, $p = .04$.

Using the CTQ, the various scales indicate rates of abuse in Table 3. The scales each have a different number of items so they cannot easily be contrasted. The SRD Alcohol Abuse scale average = 3.15 ($SD = 3.83$). Using the Substance Abuse scale, 49.7% ($n = 73$) indicated using at least one drug.

TABLE 2 Severity Score

	Victimization		Perpetration	
Score	Frequency	%	Frequency	%
1 = exposure,	6	4.1	3	2.0
2 = fondling,	10	6.8	9	6.1
3 = exposure and fondling,	8	5.4	7	4.8
4 = oral sex,	13	8.8	8	5.4
5 = oral sex and exposure,	11	7.5	2	1.4
6 = oral sex and fondling,	12	8.2	7	4.8
7 = oral sex , fondling and exposure,	7	4.8	12	8.2
8 = penetration with penis, digits or objects	2	1.4	7	4.8
9 = penetration and exposure	8	5.4	1	.7
10 = penetration and fondling	6	4.1	3	2.0
11 = penetration and exposure and fondling	7	4.8	9	6.1
12 = penetration and oral sex	3	2.0	7	4.8
13 = penetration, oral sex and exposure	10	6.8	8	5.4
14 = penetration, oral sex, fondling	32	21.8	52	35.4
Total	135	91.8	135	91.8
Missing	12	8.2	12	8.2
TOTAL	147	100.0	147	100.0

TABLE 3 Childhood Trauma Questionnaire Subscale Scores

Subscale[a]	*M*	*SD*
Emotional Abuse	12.59	6.35
Emotional Neglect	16.27	5.75
Physical Abuse	12.89	6.32
Physical Neglect	19.47	8.83
Sexual Abuse	15.65	6.47

[a]Sorted by subscale.

Using a stepwise multiple regression (as no literature-based a priori model exists for the order of entry) the youth's victimization severity score, the youth's victimization MO, childhood sexual abuse (CTQ), childhood physical abuse (CTQ), childhood emotional abuse (CTQ), childhood physical neglect (CTQ), childhood emotional neglect (CTQ), being told by someone else to sexually abuse someone else, age, and their own substance abuse (SRD) were entered into an equation to predict the level of force the youth used in their sexual abuse MO ($F = 12.38$, $p < .001$). This model accounted for 27% of the variance in the level of force the youth used in their sexual offenses against others. Being told to abuse someone else, the Victimization MO and the CTQ Physical Neglect scale were significant variables (see Table 4).

DISCUSSION

Little is known about MO and its diverse facets. In this exploratory study, there are a number of interesting findings. For example, the youth's level of perpetration and their MO was greater than their own victimization supporting an understanding of sexual abuse as recapitulation of victimization. This finding is consistent with prior research (e.g., Burton, 2003; Sigurdsson et al.,

TABLE 4 Stepwise Regression**

	Perpetration modus operandi			
Variable	*B*	*SE B*	*B*	*p* value
Told to abuse someone else[a]	2.69	.752	.305	.001
Physical neglect	.13	.031	.352	.000
Victimization modus operandi	.074	.037	.175	.047

[a]This variable is a dummy variable with 1 = means they were told to sexually abuse someone else.
**Excluded variables = youths victimization severity score, childhood sexual abuse (Childhood Trauma Questionnaire; CTQ), childhood physical abuse (CTQ), childhood emotional abuse (CTQ), childhood emotional neglect (CTQ), age, and their own drug (a dummy variable with 1 = they used drugs), and alcohol use (SRD).

2010; Veneziano et al., 2000), supporting a victim–victimizer model in which youth tend to repeat what was done to them. In another recent study, victimized sexually abusive youth had greater developmental and behavioral challenges (e.g., sexual arousal and aggression) than their nonvictimized counterparts (Burton, Duty, & Leibowitz, 2011).

Next, the youth reported a high prevalence of substance abuse, which also corroborates previous research (McClelland et al., 2004; Mio et al., 1986). However, substance abuse was not related to MO in this study (it was nonsignificant in the stepwise regression). Substance use may nevertheless be associated with sexually abusive behavior, and MO and sexual aggression may be risk factors associated with the onset and progression of adolescent substance abuse. Although Seto and Lalumiere (2010) found that substance abuse (or types of substances, alcohol vs. other drugs) did not have a significant impact on group differences between adolescent sexual offenders and nonsexual offenders, future research should explore relationships between MO and drug use. In addition, in spite of the fact that relatively few youth in the sample were told to abuse someone, its statistical power as an explanatory variable associated with MO is evident. Milgram's rather infamous studies can be illustrative (Milgram, 1963, 1965, 1974) in terms of understanding obedience and the negative emotional effects such as cognitive dissonance, feelings of coercion, and traumatic stress associated with following orders to inflict pain on others. Perhaps youth that have been ordered or told to abuse others experience these same negative effects leading to greater progression of MO, and they may experience greater traumatic stress as a result.

Physical neglect is a vastly underresearched variable for sexual abusers, and its relationship to MO is interesting. Additional research on neglect is particularly needed because the limited extant literature indicates that physical abuse and neglect may result in problems with impairments in social cognition (Kaplan et al., 1999), which is related to many types of offending. The CTQ physical neglect subscale includes questions about not having enough to eat, having lived in a foster or group home, knowing someone was there to take care of the child, living on the streets, living with different people at different times (multiple life transitions), and similar questions. Might it be that the youth who have had less physical comfort and fewer solid caretaker experiences are more aggressive as they are in need of greater physical nurturance and assurance? Perhaps they are seeking relationship or attachment to others and do not have the social skills or abilities to connect? Indeed, social isolation, among other variables including trauma, was supported in a recent meta-analysis as an explanatory factor associated with male adolescent sexual offending (Seto & Lalumière, 2010). Further, perhaps these adolescents are more callous and have less empathy for their victims because of their own lack of physical needs being met as children?

Finally, and perhaps most interesting, the variables that were not significant in the model requires further investigation. For example, as mentioned

above, substance abuse and its relationship to MO should be further investigated. In addition, physical abuse and sexual abuse severity did not predict the severity of MO. No literature could be found with which to contrast these findings. However, logically one might think that physical abuse or traumatic sequelae resulting from sexual abuse would relate to increased aggressivity, and to the more severe MO scores (was not the case in this study), indicating that offense severity results from other risk variables (e.g., deviant sexual arousal) or experiences in the youth's lives. Early in adolescence, youthful offenders could learn MO strategies as part of sexual gratification obtained through intrusive sexually aggressive behaviors, particularly when it serves to obtain increased victim compliance (Leclerc & Tremblay, 2007). Perhaps MO involves more intentional planning that is more instrumental or more situationally based, for example,based on the location of the crime and nature of the victim–offender relationship (Leclerc et al., 2008), rather than just an expression or recapitulation of previous exposure to violence or aggression.

RESEARCH IMPLICATIONS

Further research on MO would assist researchers and practitioners in understanding the mechanisms and processes these youth use to plan and act out their sexual aggression. Based on the results of this research, further research on physical neglect, measured by the CTQ in this study, is also clearly needed, as is the potentially deleterious effects being told to abuse someone. Finally, research on the relationships between substance abuse and other offense characteristics may be helpful, particularly when sexually aggressive youth more often recidivate by committing nonsexual crimes, rather than sexual offenses (Worling & Curwen, 2000), often with drug related crimes.

Treatment Implications for Forensic Social Workers

Forensic social workers have an increased role in juvenile justice and in the prevention of child maltreatment through their collaboration with professionals in the child welfare system (Maschi & Killian, 2011). Indeed, child welfare agencies have been compelled to address traumatic sequelae in mental health assessments and implement evidence-based trauma focused treatments (Griffin, McClelland, Holzberg, Stolbach, Maj, & Kisiel, 2011). Understanding MO may help forensic social workers and professionals in related disciplines develop greater insight into the characteristics of youthful offenders, their methods of abuse, and their socioemotional needs. Sex offense specific evaluators should assess for the level of force in making determinations about risk, and offer recommendations for treatment that address the family context, traumatic stress including the effects of physical

neglect, as well as interventions for substance abuse. There are a number of evidenced-based treatment models that target these areas among juvenile offenders such as multisystemic therapy (MST; Cuellar, Markowitz, & Libby, 2004; Henggeler, Schopenwald, Borduin, Rowland, & Cunningham, 1998; Schuckit, 1990). In a rigorous community-based study, Letourneau et al. (2009) found that MST resulted in reductions in sexual behavior problems, delinquency, substance abuse, and out-of-home placements among sexually abusive youth.

In terms of addressing polyvictimization and multiple types of trauma exposure, there is a paucity of research on the impact and treatment of physical neglect in particular. In a search for physical neglect and treatment of adolescents using PsycINFO, the fifth article listed was published in 1998 (Kaplan et al., 1998) and in this review of the research and treatment literature, the authors confirmed that there was very little research on treatment and existing studies had significant methodological limitations. Following that article, members of the Complex Trauma Workgroup of the National Child Traumatic Stress Network (Spinazzola et al., 2005) reported that clinicians needed tools to work with complex traumas (physical abuse, sexual abuse, emotional abuse, and neglect) and with physical neglect specifically. Treatment of the traumatic sequelae associated with physical neglect seems to be an area for further research given that it has been identified an important treatment target.

Regarding the finding that some youth that have been told to sexually abuse someone else (often by someone in a close relationship with the youthful offender), here again family-based models such as MST (e.g., Henggeler et al., 1998), may be particularly important to incorporate in treatment. MO is influenced by situational factors, in that adolescents are more likely to adopt manipulative strategies in the offenders' home where no one else is there and the offender could plan the abuse more easily (Leclerc et al., 2007). Moreover, adolescents who use manipulative strategies are more likely to secure victim compliance (Leclarc & Tremblay, 2007). Because there are difference in offenders' MO based on the relationship between the youthful offender and the victim (intrafamilial vs. extrafamilial sexual abuse; Kauffman et al., 1998), it is important to consider the family context in which the abuse occurred. In cases of intrafamilal abuse and incest, it is helpful for sex offense specific treatment providers, social workers, and probation officers to consider MO as part of risk assessment, safety planning, and decisions regarding family reunification. Finally, therapeutic interventions that assist youth in increasing social skills, capacity for self-regulation, and addressing social isolation may be clinically indicated. Failure of inhibition and self-regulation problems appears related to traumatic stress disorders, increased aggression, and use of force and to antisociality among youthful offenders (Barbaree & Marshall, 2006).

LIMITATIONS

Self-report is a limitation of this study; corroborating evidence from other sources would increase validity and probably decrease prevalence rates. Moreover, although this research involved recruiting a large number of youth, the final sample was reduced (similar to other studies of this type). Finally, there were a small number of youth who reported that were told to abuse others, which limits the understanding of that variable. Further, in future studies substance abuse should be measured with a reliable and more comprehensive instrument. Clinically, these variables seem associated with MO and therefore require further investigation.

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