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Review Article

The Relationships between Sex Offender Treatments, Callousness, Childhood Trauma, and Victim Empathy

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Abstract

The current study sought to determine whether male juveniles' with sexual behavior problems participation in the Integrated Sex Offender Treatment Program (ISOTP) resulted in a decrease in interpersonal callousness, as measured by the Inventory of Callous-Unemotional Traits-Youth Version, as well as an increase in victim empathy, as measured by the Levinson Victim Empathy Scale. Multiple regression analyses were conducted with age, duration of treatment, and childhood trauma identified as the predictor variables, and scores on the interpersonal callousness and victim empathy instruments identified as the criterion variables. Results did not confirm that age, duration of treatment, and childhood trauma predict a decrease in interpersonal callousness or an increase in victim empathy. The study's limitations and recommendations for future research are given.

INTRODUCTION

Male juveniles with sexual behavior problems often have difficulties empathizing with their victims, and in many cases manifest characteristics of psychopathy. Most, if not all, of adjudicated youth with sexual behavior problems carry a diagnosis of Conduct Disorder [1], which is characterized by a lack of empathy for others and a lack of remorse for engaging in wrongful behaviors [2]. Simply stated, individuals in this diagnostic category are unlikely to fully understand or appreciate the damaging results their harmful behaviors have upon those persons they target for victimization. Indeed, Wall, Frick, Fanti, Kimonis, and Lordos [3], discussed the potential predictive ability of one of the variables under consideration in the current study—callous and unemotional traits—relative to conduct problems in adolescents. The primary objective of the current study was to determine whether male juveniles, as diagnostically and behaviorally described above, benefit from an intervention program designed to target, among other issues, antisocial tendencies, callousness, and victim empathy.

Among other goals, one objective of the Integrated Sex Offender Treatment Program (ISOTP) sponsored by a juvenile justice agency in southeast U.S. is to assist participants' awareness of how negative and harmful behaviors affect others. That is, victim awareness is an integral element of the overall treatment program administered to this category of juveniles. In a proposed treatment model developed by Calley [4], treatment providers emphasize the importance of participants acquiring the capacity to understand their own affective states in response to different life situations, and providers assist them with developing the ability to demonstrate appropriate and matching emotional responses to these situations. Upon mastery of this skill, participants can develop an awareness of and appreciation for the victim's perspective, and thus can empathize with their victims. While this skill indeed may prove difficult for some to achieve, it is a necessary element of any such program designed to treat sexual behavior problems. Mastery of this skill, in addition to other learned treatment skills, likely aid in deterring the individual from perpetrating sexual offending behaviors against others.

As previously indicated, the ISOTP is multifaceted in that it encompasses several treatment components aimed at achieving different objectives. For example, as identified by Dailey, Underwood, Crump, Williams, Newmeyer et al. [5], one of the most important goals of the ISOTP is to reduce the rate of recidivism of male juveniles with sexual behavior problems, and the successful demonstration of this has enhanced the efficacy of the treatment program. Implementing such a program and obtaining the desired outcome (i.e., reducing recidivism) is a benefit to public safety in general, and to the safety of the victims. Moreover, because of this program, these youth learn prosocial

skills that enable them to appropriately interact with others, including authority figures.

In addition to establishing the effectiveness of the treatment program, Underwood and colleagues have sought to understand the impact the treatment has on variables such as depression, anxiety, and cognitive distortions (e.g., Karokosta, Underwood, Merino, Williams, Todd, et al. [6]; Washington, Underwood, Yarhouse, Crump, Dailey [7]). While the overall findings thus far seem to suggest that participants in this program reported less anxiety and appeared to have decreased their tendency towards cognitive distortions about their sexual offending behaviors, the treatment program did not have similar measured effects on depression for these juveniles. Nonetheless, the ISOTP has accomplished much in terms of promoting public safety and furthering the welfare of the clients (i.e,, male juveniles with sexual behavior problems).

Reducing cognitive distortions regarding the effects of sexual offending behaviors is critical to assisting these juveniles with understanding the effects their behaviors have on the victims of their crimes. Karokosta et al. [6], discussed these cognitive distortions as mechanisms by which male juveniles with sexual behavior problems minimize the harmful effects of their behaviors on the victims, while rationalizing their entitlement to gratification via the victim. It stands to reason that if these cognitive distortions indeed are reduced, then these juveniles likely begin to develop the capacity for understanding, and perhaps empathizing with their victims. Thus, the primary goal of this study was to ascertain whether, because of participating in and completing the ISOTP, male juveniles with sexual behavior problems demonstrate an increase in victim empathy, as well as a reduction in callous and unemotional traits. This possibility perhaps allows for the interruption of the solidification of antisocial traits that typically manifests in this population of individuals.

Underwood and colleagues (e.g., Karokosta, Underwood, Merrino, Williams, Todd et al. [6], Washington, Underwood, Yarhouse, Crump, Dailey [7], have suggested that juveniles with sexual behavior problems may present with additional mental health pathologies, including depression, anxiety, psychosis, and attention deficit hyperactivity disorder (ADHD). Washington et al. [7], discussed the problem of these pathologies in relation to psychopathy and suggested that male juveniles with sexual behavior problems are likely to use coercion and aggression against their victims. In many instances a comorbid psychiatric diagnosis further complicates the treatment needs of these juveniles and often warrants a multifaceted treatment protocol designed to address the mental health and behavioral needs of these youth.

Statement of the Problem

While the available literature has addressed several issues related to the diagnosing and treatment of male juveniles with sexual behavior problems (e.g., measuring treatment efficacy, assessing reduction in cognitive distortions, etc.), little attention has been given to the specific impact of remediation efforts on these juveniles' capacity for victim empathy and the manifestation of callous and unemotional traits. Research involving juvenile delinquency has yielded a measure of adolescent psychopathy that only recently has been used in the current ISOTP, and this measure is the Inventory of Callous-Unemotional Traits (ICU) [8]. This study also considered whether participants have been exposed to trauma, and what impact, if any, that trauma has upon their interpersonal callousness, as well as their capacity for empathizing with victims of sexual offenses.

The research design for this study involved a correlational study whereupon the potential relationships between age and interpersonal callousness, as well as the relationships between length of treatment participation in the ISOTP, interpersonal callousness, and victim empathy were examined. In addition, because it does not appear researchers involved in the ISOTP have measured the direct relationship between juveniles' with sexual behavior problems exposure to trauma and the variables of interpersonal callousness and victim empathy, the present study undertook this effort, and used the Trauma Symptoms Checklist for Children (TSCC) [9].

Understanding the potential relationship between childhood exposure to trauma, interpersonal callousness, and victim empathy may provide insight into the importance of treating trauma as soon after exposure as possible. Indeed, trauma treatment modalities, including the increasingly popular Eye Movement Desentization and Reprocessing (EMDR) model, have shown tremendous promise in treating victims of child abuse and other traumas [10].

Purpose of the Present Study

This study expanded upon previously conducted studies involving the ISOTP in a southeastern state in the United States. Specifically, this study sought to investigate the potential relationship between participant age and interpersonal callousness and measured the potential relationships between duration of treatment, interpersonal callousness, and victim empathy. Finally, this study measured these juveniles' exposure to trauma using the TSCC and correlated these scores with the juveniles' scores on the measures of interpersonal callousness and victim empathy.

This study potentially could enhance findings of previous studies addressing the efficacy of the ISOTP and may address a key issue that appears lacking in the current literature. For example, Dailey et al. [5], demonstrated that youth who participated in the ISOTP presented with a lower risk for sexual reoffending, and Washington, Underwood, Yarhouse, Crump, and Dailey [7], discovered that youth who participated in the treatment program demonstrated reductions in anxiety, depression, and cognitive distortions having to do with rape and molestation. Unlike these and other studies, the current study aimed to measure potential changes in these juveniles' callous and unemotional traits, as well as their capacity for empathizing with victims given their participation in the program. While it

is unconventional to imagine that psychopathy is apt to change, research has shown that behavioral correlates indeed can change because of treatment [11]. Moreover, O'Neill, Lidz, and Heibrun [12], suggested that in some cases juveniles with psychopathic traits will outgrow these tendencies as they continue to develop and mature. Given this possibility, coupled with the potential treatment benefits of the ISOTP, these juveniles could benefit from treatment interventions designed to diminish psychopathic expressions.

Research Hypotheses and Design

This study was designed to determine the relationships between male juveniles' with sexual behavior problems participation the Integrated Sex Offender Treatment Program and their level of victim empathy and interpersonal callousness. The study also examined the relationship between childhood trauma and victim empathy, as well as the relationship between childhood trauma and interpersonal callousness. The juveniles sampled for this study were in two secure care facilities in the Southeastern United States juvenile justice system and had been adjudicated secondary to sex crimes. The hypotheses for this study were as follows: H_1 Age, duration of treatment, and childhood trauma predict a decrease in interpersonal callousness for juveniles with sexual behavior problems. H_2 Age, duration of treatment, and childhood trauma predict an increase in victim empathy for juveniles with sexual behavior problems.

MATERIALS AND METHOD

Researchers for this study used a nonexperimental correlational design. For this design, the experimenter does not use randomization, nor is there any manipulation of the variables [13]. Bangert and Baumberger [14], demonstrated that this design has accounted for approximately 29 percent of the designs used in the social sciences. This study was reviewed and approved by the Human Subjects Review Committee (HSRC) with Regent University. Given that the researchers for this study analyzed archival data, no significant risks were involved.

Population and Sampling

Researchers for this study selected a convenience sample of 22 male juveniles between the ages of 14 and 19 years in two secure facilities in the Southeastern United States who had been adjudicated secondary to sexual offenses and who were participating in the Integrated Sex Offender Treatment Program (ISOTP). The researcher secured the necessary approval from the Human Subjects Review Committee before collecting data. The youth for this study completed the paper-and-pencil surveys while sitting in a room together. The researchers secured written informed consent from the youth prior to the beginning of the administration of the surveys and remained in the room throughout the duration of the exercise. No interactions between the researchers and participants occurred unless the participants requested additional information.

Integrated Sex Offender Treatment Program

The ISOTP involves individual and group engagements designed to address areas of social skills, impulsivity, cognitive distortions, unhealthy masculinity, healthy sexuality and relationships, anger management, empathy, and other areas usually characteristic of males with sexual behavior problems. The program additionally addresses discharge planning and relapse prevention. Finally, the ISOTP is aimed at assisting these juveniles with understanding and respecting proper sexual boundaries and exercising appropriate self-restraint.

MEASURES

Demographic Questionnaire

Participants completed a demographic questionnaire that provided information about age, race-ethnicity, highest grade level completed, and legal history (**Appendix IV**). In addition, this survey enquired about possible sexual abuse history, history of sexual behavior problems, length of time in secure care, length of time receiving sexual offender treatment, and length of time in treatment at the time the research assistants collected this data.

Inventory of Callous-Unemotional Traits-Youth Version

The research assistants administered participants the ICU-Youth Version [8], which is a 24-item instrument designed to measure psychopathy in adolescents (**Appendix** I). Although many instruments designed to measure the singular construct of psychopathy exists, the ICU-Youth Version was chosen for this study due to its relevance for juveniles with delinquency problem in general, and particularly for male juveniles with sexual behavior problems.

Participants responded to items on a 4-point Likert-type scale, with 0 representing "Not at all true," and 3 representing "Definitely true." Sample items from this instrument include the following: "I do not care who I hurt to get what I want," "I am concerned about the feelings of others," "I try not to hurt others' feelings," and "I do not feel remorseful when I do something wrong." Higher scores on this instrument represent higher levels of psychopathy. Essau, Sasagawa, and Frick [8] reported a composite internal consistency estimate (cronbach's coefficient alpha) of .77.

Levinson Victim Empathy Scale

Participants responded to the Levinson Victim Empathy Scale [15], which is a 37-item scale designed to measure respondents' level of empathy for victims (**Appendix** II). The juveniles responded to the items on a 7-point Likert-type scale, with anchor points 7 representing "always," and 1 representing "never." Examples of items from this instrument include the following: "When I think about a child being victimized, I want to soothe and comfort him," "I believe victims make too much of their abuse," and "I can sense what other people are feeling in emotional situations." Higher scores on this instrument are indicative of higher levels of victim empathy.

Barbara Levinson constructed this scale and administered to a sample of 192 male participants of a sex offender treatment

program in the southwestern U.S. Of interest to note is that of this sample, 43 percent endorsed being a victim of sexual abuse, 44.3 percent stated they had been physically abused, and 58.9 percent said they suffered verbal abuse [15]. Moreover, the reported perpetrators of abuse against these youth primarily involved caregivers and other older adult family members.

Levinson reported a total standardized Cronbach's Alpha coefficient of .84. Principal component analysis yielded the three subscales of empathic response scale, interpersonal appreciation scale, and the interpersonal sensitivity scale, with Cronbach's Alpha coefficients of .80, .79, and .73, respectively. Moreover, convergent validity of the instrument was established with the relatively high Pearson product-moment correlation coefficient between the composite score and the Interpersonal Reactivity Index, an alternate measure of empathy (r = .18).

Trauma Symptoms Checklist for Children

Finally, participants responded to the Trauma Symptoms Checklist for Children [9], which is a 54-item scale designed to measure trauma symptoms in children (**Appendix** III). Participants responded to items on a 4-point Likert-type scale with 0 representing "never" and 3 representing "almost all of the time." Sample items include: "Remembering scary things," "Wanting to say dirty words," and "Getting scared all of a sudden and don't know why." Higher scores are indicative of more trauma symptoms. Reliability estimates for the subscales of anger, depression, anxiety, PTSD, and dissociation range from .81-.88. Brier reported that this instrument is comprised of the validity scales of under-response and hyper-response, and the clinical scales of anxiety, depression, posttraumatic stress, dissociation, anger, and sexual concerns. Brier noted that participants who have received trauma treatment tend to score lower on this instrument. Other studies have noted this scale demonstrates good discriminant and convergent validity [16].

Predictor and Criterion Variable Description

The predictor variables (PV) and the criterion variable (CV) differed, depending on the specific research hypothesis. For research hypothesis one, age, duration of treatment, and childhood trauma were the predictor variables, or independent variables, and interpersonal callousness was the criterion, or dependent variable. For research hypothesis two, age, duration of treatment, and childhood trauma were the predictor, or independent variables, and victim empathy was the criterion, or dependent variable.

STATISTICAL ANALYSIS

Descriptive Statistics

In terms of describing the data, this study included means and standard deviations for the administered instruments. Responses to the demographic questionnaire also were included in the descriptive statistics, which involved the mean scores and percentages see in [Table 2].

Inferential Statistics

Multiple regression analyses were used to determine if the predictor variables of age, duration of treatment, and childhood trauma account for the variability in the criterion variables of interpersonal callousness and victim empathy. Correlational coefficients also were obtained between the variables of interest. Specifically, the Pearson r was computed to ascertain the direction and strength of the relationship between the identified variables for each research question.

DISCUSSION

Participant Description and Demographics

The participants' ages for this study ranged from 14-19 years. In terms of history of sexual victimization, 36.4 percent of these adolescents acknowledged experiencing some form of sexual abuse prior to their adjudication, and 9.1 percent of these had been victimized on five or more occasions. Historically, 77.3 percent of these participants had no prior experience with sex offender treatment, and 22.7 percent had participated in at least one prior such treatment program. Twelve participants had spent at least nine months in the current treatment program. For the frequency of sex offense charges, 15 participants had incurred one charge, and one participant had accumulated four such charges. It should be noted that in addition to the committing sex offense charges, 15 participants had a history of additional criminal or delinquent charges, including simple burglary of an inhabited dwelling, simple criminal damage to property, trespassing, truancy, simple escape, and other charges. These additional delinquent behaviors are listed in Table 1.

Findings

Preliminary assumptions testing was conducted to determine whether the data was of sufficient quality to adhere to the proposed parametric procedures. It should be noted that the relatively small sample size of 22 is significantly smaller than the recommended size of 74 given the use of three predictor variables (Independent Variables). There were no significant violations to the assumption of normality with these data. As indicated by the Mahalanobis Distance, there were no outliers (i.e., maximum value did not exceed the critical value of 16.27 for the three independent variables). Given that none of the correlations between these variables was greater than .70, multicollinearity was not problematic. There also were no direct violations to the assumptions of linearity and homoscedasticity.

Research Hypothesis 1: For the first research hypothesis we proposed that age, duration of treatment, and childhood trauma would predict a decrease in interpersonal callousness for these participants. A multiple regression analysis was performed to predict changes in interpersonal callousness from age, duration of treatment, and childhood trauma at time 1. As previously indicated, preliminary analyses were conducted to ensure there was no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. The multiple regression

Table 1: Additional Delinquent Behaviors

Delinquent Behavior	*N* = 22
Substance Use	12(54%)
Peer Delinquency	4(18%)
Elopement	1(5%)
Simple Burglary of an Inhabited Dwelling	2(9%)
Simple Criminal Damage to Property	1(5%)
Criminal Trespassing	1(5%)
Simple Burglary	1(5%)
Simple Escape	1(5%)
Resisting an Officer	3(14%)
Simple Robbery	3(14%)
Theft < $300	1(5%)
Illegal Carrying Weapon	1(5%)
Illegal Possession of Handgun by Juvenile	1(5%)
Illegal Possession of Stolen Things > $1500	1(5%)
Illegal Possession of Stolen Firearms	1(5%)
Illegal Use of a Weapon	1(5%)
Obstruction of Justice	1(5%)
Battery	1(5%)
Expulsion from School	11(50%)

Table 2: Descriptive Statistics for Age, Trauma, Victim Empathy, and Interpersonal Callousness

	N	Mean	Standard Deviation
Age	22	16.59	1.37
Trauma Raw	22	34.05	34.05
LVET Total Time 1	22	175.74	22.3
ICU Total Time 1	22	21.8	7.64

model was not statistically significant, $F(3, 14) = .43$, $p = .74$, adjusted $R^2 = .11$. None of the three variables added statistically significantly to the prediction, $p > .05$. Thus, Hypothesis 1 was not supported.

Research Hypothesis 2: For the second research hypothesis we proposed that age, duration of treatment, and childhood trauma would predict an increase in victim empathy for these participants. A multiple regression analysis was performed to predict changes in victim empathy from age, duration of treatment, and childhood trauma at time 1. As previously indicated, preliminary analyses were conducted to ensure there was no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. The multiple regression model was not statistically significant, $F(3, 11) = 2.22$, $p = .14$, adjusted $R^2 = .21$. None of the three variables added statistically significantly to the prediction, $p > .05$. Thus, Hypothesis 2 was not supported. Table 2 summarizes the descriptive statistics for participants' ages, raw trauma scores, scores on the Levinson Victim Empathy Scale at Time 1, and scores on the Inventory of Callous and Unemotional Traits-Youth Version at Time 1.

CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

The purpose of this study was to determine whether the age of participants, the length of time in treatment, and the experience of childhood trauma would predict an increase in victim empathy, as well as a decrease in interpersonal callousness. Within the overarching goal of the ISOTP to clinically treat adolescents adjudicated secondary to sexual offenses, this line of inquiry previously has not been pursued. Unfortunately, and likely for several reasons as discussed below, the hypotheses for this study were not confirmed.

INTERPRETATION OF RESULTS

Research Hypotheses 1 and 2

The results from the statistical analyses did not support the hypothesis that any of the predictor variables of age, length of time in treatment, or experience of childhood trauma predict either a decrease in interpersonal callousness or an increase in victim empathy. One possibility is the relatively small sample size available for this study. Examining the general structure of the multiple regression equation, it is important to consider the recommendations of statisticians regarding the preferred sample size for each predictor variable, as well as the regression equation. For example, Tabachnik and Fidell [17], have suggested the following for the multiple regression equation and the individual predictors, respectively: $N \geq 50 + 8m$, $N \geq 104 + m$ (m is the number of predictor variables). Applying these formulae to the multiple regression equation calculated in this study, $50 + (8)(3) = 74$, and $104 + 3 = 107$ to test the regression equation and individual predictors, respectively. Thus, the sample size of 22 for this study was significantly smaller than the recommended size as discussed.

The original sample size consisted of 49 participants, but the failure of 27 of these participants to provide all the requested data rendered these cases of little use for the current research objectives. It should be noted, however, that if all 49 of the targeted participants had adequately responded to all items on all instruments, this scenario would have yielded a sample size much smaller than the recommended size of 74.

Regarding the above research design quandary, one should consider the applicability of this phenomenon to the actual size of the population of juveniles with sexual behavior problems as compared to the size of the general population of adjudicated juveniles. That is, the subset of juveniles with sexual behavior problems in the general population is relatively small. Nonetheless, the use of an advanced multivariate procedure, such as the multiple regression formula, requires adequate sampling to detect the possible occurrence of the research phenomenon under investigation. It is quite possible a larger sample size for this study would have enabled the rejection of the null hypothesis. Pragmatically, one simply does not recruit participants from this population of juveniles for the sake of enhancing the utility of a statistical procedure. In other words, the population of male juveniles with sexual behavior problems is a far smaller subset from which to sample. Nonetheless, careful consideration should be given with respect to the overarching research aims, the statistical methods by which to test those research aims, and the quantity and quality of the sample selected. This can prove challenging when relying on the use of archival data, as was the

case for the current study, but a carefully planned design could aid in overcoming this limitation.

Null findings for any study are difficult to process, but for this study, the results do not necessarily indicate that there is no relationship between the variables of interest. Rather, as mentioned earlier, the lack of statistical significance likely is due to the woefully inadequate sample size needed to detect such a difference. Thus, it likely is premature to conclude that age, duration of treatment, and the experience of childhood trauma does not predict an increase in victim empathy and a decrease in interpersonal callousness. There simply is insufficient information at this time to, with a reasonable degree of confidence, conclude either of these hypotheses (i.e. research vs. null hypotheses) is correct.

Limitations of the Current Study

Research Protocols: Although the argument to explore the hypotheses in this study is valid, the design and execution of the study presents serious limitations. As previously discussed, the use of archival data presents risks of data loss. To correct this, researchers should implement protocols aimed at ensuring the data record is complete before leaving the site. This likely will involve the researcher examining each research packet for completeness. In addition, the researcher should emphasize to participants the importance of asking questions for clarity when needed and should ensure instructions are clear at the outset. Implementing these recommendations likely will improve the quality of resulting data.

An additional possible limitation for the present study involves the design itself. With this population of juveniles participating in a treatment program designed to resolve and correct sexual behavior problems, an optimal research design strategy would involve a pretest-posttest design in which the researcher measures difference scores on the variables of interest. For example, for a study like the current study, given ample time and resources, likely the best strategy to measure whether participation in the ISOTP results in an increase in victim empathy and a decrease in interpersonal callousness is to collect the necessary data at the beginning of the study and collect the same data at the end of the study. Employing the appropriate statistical operations (e.g., *t*-test, ANOVA, MANOVA, etc.) to ascertain any potential differences, as well as the nature of those potential differences, likely will yield results that will present a clearer research and clinical picture regarding the effectiveness of this aspect of the Integrated Sex Offender Treatment Program. Retrospectively, such a design may have resulted in a different outcome for the present study.

Generalizability Limitations: Secondary to the above discussion, the sample size for this study was inadequate in terms of the likelihood of detecting a statistically significant change in the criterion variables. This largely is attributable to the preceding discussion regarding data management. However, the small sample size also is the result of a relatively few number of cases compared to the general population of adolescent males in secure care but is considered within the normal range of expected size for this subset [18-20]. As such, the generalizability of the results in any such study using this subset of juveniles (i.e., males with sexual behavior problems) is limited.

Recommendations for Future Research: Whereas this study was a worthy endeavor to understand the potential relationships between sex offender treatment, callousness, childhood trauma, and victim empathy, the hypotheses for the study were not confirmed. That is, these results did not confirm that age, duration of treatment, and the experience of childhood trauma for male juveniles with sexual behavior problems function as predictors for an increase in victim empathy or a decrease in interpersonal callousness. However, given the inadequacy of the sample size, it likely is premature to definitively conclude that there is no relationship between these variables, or that the predictor variables do not account for any potential variance in the criterion variables. Rather, it likely is safe to wager that the results of the present study are inconclusive regarding the confirmation or rejection of these research hypotheses. In any case, the following recommendations should be considered for future pursuits of this line of inquiry.

Study Replication: A cardinal rule in the universe of scientific research involves that of replication of studies to enhance external validity [13]. Even studies producing the desired outcomes (i.e., confirmation of stated hypotheses) require replication before reaching definitive conclusions regarding the phenomenon under investigation. Likewise, studies in which the desired outcomes are not achieved should prompt additional studies before reaching final conclusions regarding the relationships among the variables of interest. Following this logic, it seems prudent to recommend an additional such study, albeit with an adequate sample size, before progressing toward a more definitive determination regarding the predictability of age, duration of treatment, and the experience of childhood trauma relative to victim empathy and interpersonal callousness.

Given the stated concerns regarding the quality of data management, it is recommended that future such studies exercise tighter controls and implement regular quality assurance protocols to ensure the integrity of the database is maintained. Such a corrective action plan likely will result in a more complete data record, and by extension, will increase the sample size of usable data points. Moreover, in terms of fairness to the population under investigation, to the scientific community and other stakeholders, and to the public at large, ensuring the integrity of the database furthers the interest of general research aimed at addressing the challenges confronted by those individuals impacted by sexual offending.

Finally, it may prove fruitful to offer an alternative design when examining the potential relationships among the variables of this study. As discussed above, an experimental, or quasi experimental design may offer a higher probability of estimating causality among these variables. That is, constructing a design in which the variables of victim empathy and interpersonal callousness are measured in a pre-treatment and post-treatment

fashion may allow the researcher to begin the process of affirming the effects of the ISOTP on these variables. Of course, this would depend on the results, as well as the control the researcher exercised over extraneous variables and other factors that tend to confuse the accuracy of the research picture.

CONCLUSION

This study sought to explore the predictability of age, duration of treatment, and childhood trauma relative to the expected increase in victim empathy and the expected decrease in interpersonal callousness for male juveniles with sexual behavior problems. The results did not meet these expectations, but shortcomings likely contributing to the failure to obtain these expectations were discussed at length. The single most pernicious threat to this study was the low sample size used to test these hypotheses. Recommendations were given to remediate this problem. Recommendations also were given to significantly improve the quality of usable data for future such studies. Implementing these recommendations potentially could result in future such studies providing a better understanding of the true nature of the relationships among these variables, and thus could provide a basis for a more intentional targeting of these juveniles' capacity for empathizing with their victims, as well as their propensity for psychopathic and deviant behaviors. In any case, a successful replication of this study would serve to enhance the overall credibility of the Integrated Sex Offender Treatment Program.

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