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Intervention for modifying risk level of hypersexual behaviors among male parents with sexual offending history

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Abstract

Background: The increased sexual assault committed against women and young girls by people of the opposite gender has put their safety in danger in recent years. This has contributed to a growing number of adult sex offenders who have aggressive sexual attitudes. This study investigated the efficacy of cognitive behavior therapy (CBT) in reducing the risk level of hypersexual behaviors among male parents.

Methods: A total of convicted 48 inmates participated in this study. In pursuance of this aim, 3 dependent measures were employed in evaluating the participants' violent sexual attitudes at 3 points. The simple random technique was adopted in selecting 24 participants who participated in the CBT program while 24 participants were used as the no-intervention control group.

Results: The ANCOVA analysis shows a positive treatment outcome in reducing the risk level of hypersexual behaviors among male parents who participated in the CBT program when compared to the no-intervention control group. This study found that cognitive behavioral therapy intervention is a coping strategy for reducing hypersexual behaviors among male parents with sexual offending history in favor of participants in the intervention group at the 3 levels of assessments. The study showed a significant difference between groups in the risk level of hypersexual behaviors among male parents with a sexual offending history. Also, the result showed a significant interaction between time and treatment. Regarding the moderating impact of sexual behavior on the risk level of hypersexual behaviors,

Conclusion: Given this, this study suggests that CBT intervention reduces the risk level of hypersexual behaviors among male parents. Implications for protection agencies and policies were highlighted.

Abbreviations: CBT = cognitive behavioral therapy, CI = confidence interval, HBI = Hypersexual Behavior Inventory.

Keywords: cognitive behavioral therapy, male parents, Nigerian prison, protection agencies, risk level of hypersexual behaviors, sex offenders

1. Introduction

In recent times, the insecurity of women and underaged girls are threatened by sexual violence permeated by the opposite sex. Such acts have health and psychological implications for the victims. Worrisomely, persons with disabilities and female children have been reported as the most victims of physical and social insecurity in Nigeria. These populations face regular challenges in gaining protection from the criminal justice system, security officers, and advocacy organizations. Then, what are the protection agencies doing, however, they have been charged to protect the vulnerable and punish the peddlers and perpetrators of these acts.

Sexual violence refers to the act of forcing a person of either the same or opposite sex to have sexual intercourse that causes physical or psychological harm.[1] Sexual violence includes rape, abuse, violent dating,[2] forced vaginal or anal penetration,[3] and sexual assault.[4] At the moment, in both developed nations[5] and developing nations,[6] sexual violence poses a major public health challenge among adolescents and adults.[6]

Data from Nigeria shows that in Edo state high proportion of Nigerians experienced sexual assault.[7] This high rate of violent sexual behaviors in Nigeria[8] is due to the height of raping, sexual harassment, and other forms of sexual assault in Nigeria.[9] In Southern Nigeria, about 61% of girls, 12 years are highly venerable to sexual abuse with adults stimulating the act.[10] No less than 150 million female children have experienced sexual violence.[11] Contrary to what was the

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The datasets generated during and/or analyzed during the current study are not publicly available, but are available from the corresponding author on reasonable request.

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case in the past, violent sexual crime is increasing rapidly in Nigeria.[12] Due to the growing incidence, there was the establishment of the Sexual Offence Act to control the unlawful penetration of genital organs and inducement using violence and intimidation.[13]

Sexual violence has led many people including children into risky sexual infectious diseases.[14] Studies showed that HIV/AIDS associated with sexual violence is high with over 73% of Nigerians who engage in nonconsensual sex at risk of the dreaded disease.[4] Despite the high evidence, punishment, and overwhelming health/psychiatric outcomes noted in the literature, researchers in Nigeria seemed to have failed to adequately focus on possible psychotherapeutic treatment. Previous studies have used cognitive disputation[15] and relapse prevention training techniques of cognitive behavioral approach in reducing the high-risk level among sex offenders.[16] Given this reason, therefore, we suggest that cognitive behavioral interventions could help imprisoned individuals to dispute criminological thoughts responsible for violent sexual tendencies.

Cognitive behavioral therapy (CBT) is one of the leading interventional models which relates to symbolic interactionism, postulating that human cognitive behavior and reactions to social stimuli are based mostly on a personal interpretation and processing of interactions.[17,18] CBT approach is one of the most psychotherapeutic interventions found in treating general psychological and psychiatric symptoms such as depression, anxiety, and stress.[19] CBT studies for incarcerated sex offenders have shown that sex offending leading offenders to imprisonment could be reduced using cognitive behavioral techniques.[20] Despite the confirmation of the powerful psychotherapeutic efficiency of CBT strategy in treating violent sex-offending attitudes,[21,22] identifying and understanding these innate drives to hypersexual behaviors,[23] still, there are a few studies in Nigeria addressing such a significant public health concern in Nigeria and internationally. The researchers are guided by the motivation that the application of cognitive behavioral therapy (CBT) could modify and reduce the risk level of sex offenders. To apply CBT, researchers adopted cognitive behavioral therapy (CBT) which modifies the risky sexual attitudes linked to offending persons and develops self-control mechanisms (cognitive/behavioral skills). Based on the efficacy of CBT, this study evaluated the impact of cognitive behavioral therapy intervention in modifying and reducing the risk level of sex re-offenders. We also hypothesize that there would be a decline in the risk level of hypersexual behaviors responsible for hypersexual offenses at time 2 and time 3 when exposed to the cognitive behavioral therapy intervention.

2. Methods and Materials

2.1. Participants and procedure

A total of 48 convicted inmates were recruited by the research team after permission was obtained from the prison management and the institutional affiliation of the principal researcher. An institutional review board in the Faculty of Education, University of Nigeria, Nsukka approved the study. The participants gave oral permission before they were recruited. This aided the researchers to ensure that the consent of the participants was received. Recruitment of the participants was done to ascertain the inmates who were willing to participate in the study. Prior to that, those that indicated interest orally were screened for eligibility via dependent measures. Also, the inmates were considered if the person had been convicted, inclination to treatment, and was incarcerated for a sexual offense. The sampled 48 participants were allocated to the intervention group and the no-intervention group. All the participants were male parents and were convicted prison inmates. Further detail about the randomization is demonstrated in Figure 1.

The study treatment group received a 12-session programme titled CBT delivered by cognitive behavioral therapists. Sessions 1 to 2 contain an introduction, the goals of the intervention, an explanation of the risk level of hypersexual behaviors, and the consequences. Sessions 3 to 4 addressed static, stable, and acute risk factors of violent sexual behaviors. Sessions 5 to 6 involved training on self-efficacy, the ability to set goals, the ability to make decisions, cognitive deficit, morality, and pro-social skills. Session 7 to 10 contains training on the promotion of the ability to control self, rational thinking, repercussions of actions, and the ability for pro-social choices. Sessions 11 to 12 contain a recap of all sessions that is revision exercises, the ability to cope with cognitive and emotional scenarios, and the close of the intervention. During the treatment, the basic cognitive core beliefs such as negative view about oneself (*my life became useless since the day I forcefully had sex with my girlfriend*), the future (being in prison because of my inability to control my sexual urge has made me lose hope of becoming a great person in future), and the world were targeted (*my family members and friends hate me because of my sexual attitudes*) – this is particularly important because Beck model provides cognitive treatment targets for people suffering from mental health problems.[17] Assigning home exercises (homework) to the participants facilitated the goal-setting process in that the therapists (counseling psychologists) help the participants to address each session. Some of the techniques used during the sessions are the management of self, cognitive modification, mood evaluation, ability to solve problems, cognitive contestation, and guided discovery.

The researchers later met the participants as a follow-up meeting which lasted for 1 month after 6 months. The follow-up meeting that occurred after 6 months was structured to know the sustained impact of the intervention using the third point (Time 3) evaluation and termination of the study. After the follow-up meetings, the follow-up evaluation (Time 3) was conducted immediately.

2.2. Measures

Hypersexual Behavior Inventory (HBI) developed by Reid, Garos, and Carpenter[24] is a 19-item, with 3 subscales (control: 8 items, coping: 7 = items, and consequence: 4 = items) that measures hypersexuality attitudes in terms of emotional distress, inability to control the sexual urge and the associated consequences. Participants indicated their responses using a 5-point Likert scale of 1 (Never) to 5 (Very often) indicating that a never or low score shows getting better while a higher score or very often means getting worse on hypersexuality. The reliability statistical value of $\alpha = .95$ was established using the Cronbach alpha coefficient. Additionally, studies have consolidated and verified the validity and reliability of the HBI in several cultures, for instance, Bőthe[25] found $\alpha = 0.86$ for coping, $\alpha = 0.82$ for control, and $\alpha = 0.75$ for consequence. Other studies also confirmed the reliability.[26–28] In a Nigerian cultural setting, we found reliability (0.84) using the Cronbach alpha coefficient.

2.3. Intervention

Cognitive behavioral therapy (CBT) is a 12-session treatment manual. The manual was based on the principles of Beck.[17] The objective is to change the violent sexual attitudes of sex offenders by modifying skewed cognitions and behaviors and promoting pro-social skills among offenders using cognitive behavioral skills. The CBT application was for 12 weeks duration with 1 session, 90 minutes per week. The manual began with the establishment of cognitive alliance, the building of rapport, the introduction, and the goal of the intervention.

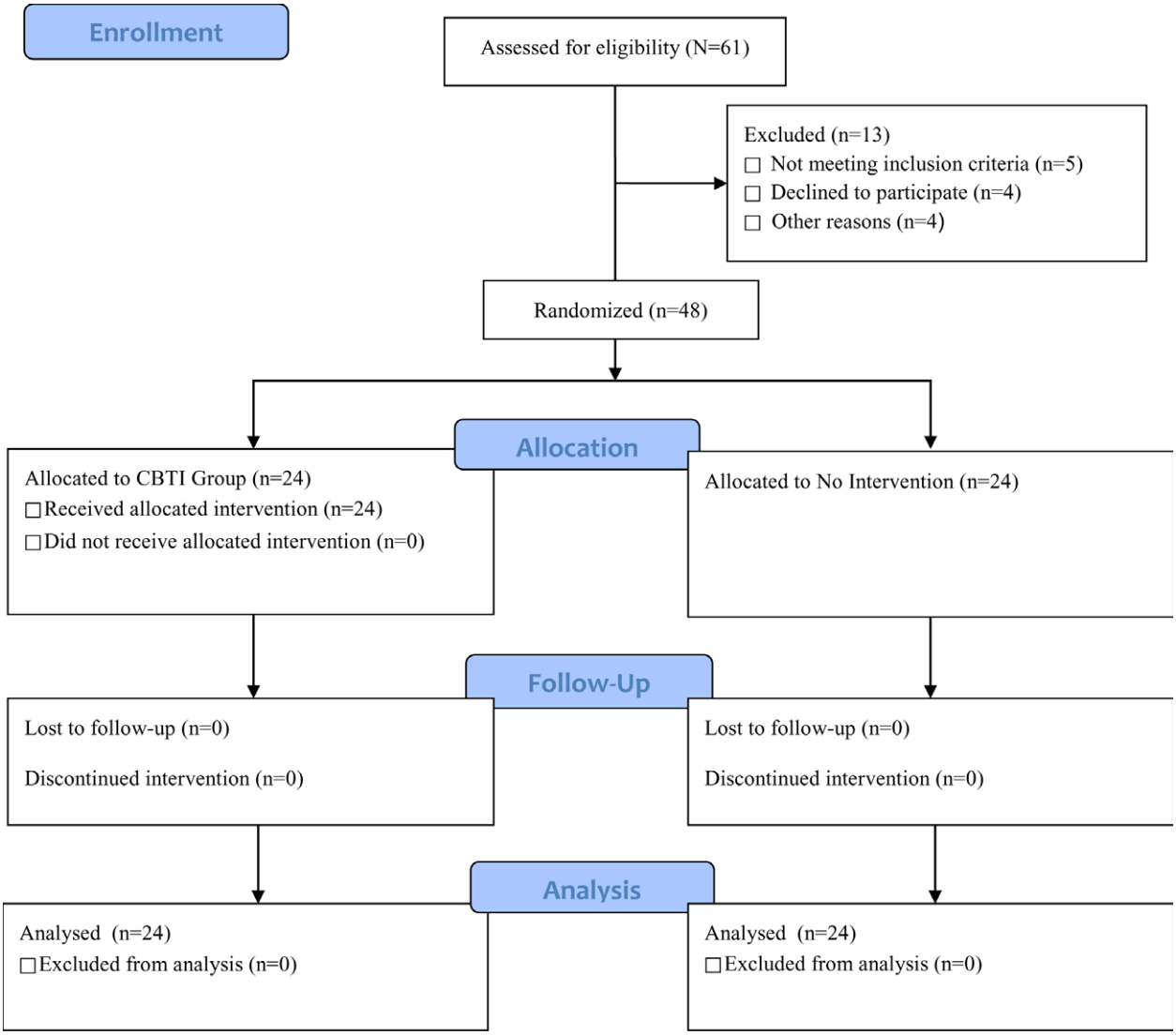

Figure 1. Participants allocation diagram.

2.4. Data analysis

Analysis of covariance (ANCOVA) was used to establish the treatment benefits of CBI-programme in decreasing the risk level of hypersexual behaviors among male parents with a sexual offending history. The control variable is called the covariate. The covariate for the study is the pretreatment measure. A partial eta squared value was used to report the intervention's effect size on managing the risk level of hypersexual behaviors among male parents with a sexual offending history.

3. Results

Table 1 revealed that there was no significant difference in the pretest measure, F (1, 47) = .064, P = .802, η^2 =.001. During the posttest, it also showed a significant difference between groups, F (1, 76) = 53.282, P < .001, η^2 =.548 in the risk level of hypersexual behaviors among male parents with a sexual offending history. Also, the result shows a significant interaction between time and treatment, F (1, 47) = 68.987, P < .001, η^2 =.611.

The results in Table 2 show the prison inmates in Time 2 had mean reductions in HBI scores than the participants in the comparison group as given by the post hoc analysis by time (mean difference = −5.029, standard error = .455, P < .001, 95% confidence interval (CI) = −6.155 to −3.902; mean difference = −6.862, standard error = .498, P = .000, 95% CI = −8.096 to −5.627). In addition, the result shows a significant interaction between time and treatment, F (1.465) = 77.214, P < .001, η^2 =.627. Figure 2 showed the nature of the interaction effect of time and treatment on the risk level of hypersexual behaviors among male parents with a sexual offending history.

3.1. Discussion

The aim of this study was to find out the efficacy of the CBI program modifying the risk level of hypersexual behaviors among male parents with a sexual offending history. This study found that cognitive behavioral therapy intervention is a coping strategy for reducing hypersexual behaviors among male parents with sexual offending history in favor of participants in the intervention group at the 3 levels of assessments. The study showed a significant difference between groups in the risk level of hypersexual behaviors among male parents with a sexual offending history. Also, the result showed a significant interaction between time and treatment. Regarding the moderating impact of sexual behavior on the risk level of hypersexual behaviors, the finding validated a work credited to Lipsey, Landenberger, and Wilson[29] that CBT has benefits for the rehabilitative management of the offenders' population. The findings of the current study also

Table 1

Analysis of covariance (ANCOVA) analysis of the effect CBT on risk level of hypersexual behaviors.

Source	Dependent variable	Type III sum of squares	df	Mean square	*F*	Sig.	Partial η^2
Group	Pretest	.357	1.47	.357	.064	.802	.001
	Posttest	351.726	1.47	351.726	53.282	<.001	.548
	Follow-up	527.877	1.47	527.877	68.987	<.001	.611
Sexual offense behavior	Pretest	9.338	1.47	9.338	1.666	.204	.036
	Posttest	3.784	1.47	3.784	.573	.453	.013
	Follow-up	15.784	1.47	15.784	2.063	.158	.045
Group × sexual offense behavior	Pretest	1.662	1.47	1.662	.297	.589	.007
	Posttest	2.792	1.47	2.792	.423	.519	.010
	Follow-up	.138	1.47	.138	.018	.894	.000
TIME	Greenhouse–Geisser	288.619	1.465	196.971	68.441	<.001	.598
TIME × group	Greenhouse–Geisser	325.616	1.465	222.219	77.214	<.001	.627

CBT = cognitive behavioral therapy.

Table 2

Sidak post hoc analysis of group × time interaction effects.

Group	(I) TIME	(J) TIME	Mean difference (I–J)	Std. error	Sig.†	95% CI
Treatment group	1	2	5.029*	.455	<.001	3.902–6.155
		3	6.862*	.498	.000	5.627–8.096
	2	1	–5.029*	.455	<.001	–6.155 to –3.902
		3	1.833*	.269	<.001	1.167–2.500
	3	1	–6.862*	.498	.000	–8.096 to –5.627
		2	–1.833*	.269	<.001	–2.500 to –1.167
Waitlist control group	1	2	–.724	.455	.314	–1.850,.402
		3	1.421E–14	.498	1.000	–1.235 to 1.235
	2	1	.724	.455	.314	–.402 to 1.850
		3	.724*	.269	.029	.057–1.390
	3	1	–1.421E–14	.498	1.000	–1.235 to 1.235
		2	–.724*	.269	.029	–1.390 to –.057

Based on estimated marginal means.

CI = confidence interval.

* The mean difference is significant at the.05 level.

† Adjustment for multiple comparisons: Sidak.

supported earlier studies that used CBT to help other populations with negative attitudes.[30,31] Similarly, a meta-analytic study conducted by Pearson, et al[32] showed CBT to be more effective in providing healthful belief about antisocial behaviors among other approaches. Thus, the application of CBT-oriented strategies may minimize high-risk rates of offending sexual attitudes.[33] This is the reason a good number of empirical literature highlighted that cognitive-behavioral applications and approaches are powerful psychological therapy that could be for people with sex offenses.[34–36] The long-range impact of CBT programs was also demonstrated by Nwokeoma, et al.[15] Also, the effectiveness of CBT approaches in treating adult sex offenders was further documented in past studies.[37–41] The present study is consistent with a past study that reported a long-term impact of CBT on individuals with hypersexual behaviors.[42]

Delivering the CBT intervention in the right direction for desirable attitudinal change among sex offenders becomes important. Like experts in prison, professionals working in other establishments should apply the CBT principles in schools, police, churches, mosques, and organizations[15] to reduce violent sexual attitudes among people. Furthermore, mental health counselors, criminologists, psychologists, social workers, and other rehabilitation professionals serving prisons are enjoined to adopt the CBT approach while helping their clients.

4. Conclusion

This study suggested that the CBT approach is effective psychotherapy that reduces the risk level of hypersexual behaviors among male parents with sexual offending history in Enugu, Nigeria. Based on the relevance of this study, future studies can explore the application of the CBT approach to other groups and organizations.

4.1. Implications for clinical practice, protection agencies, and policy

Given the clear evidence that the safety of the vulnerable in Nigeria is not guaranteed and cost-effective for CBT in changing the perpetrators, the far-reaching implications for protection agencies and policies should be highlighted. Therefore, protection arms should strengthen security strategies to improve the security of vulnerable populations in developing regions such as Nigeria. They should take proper account of the victims of violent sexual acts in terms of their disability, social origin, marital status, and sexual orientation. As women and girls are significantly affected by sexual insecurity by the actions of those peddlers. Thus, we advocate those cognitive behavioral therapists should liaise with intelligent protection officers to draft policy statements that could utilize cognitive behavioral principles in the perpetrators. If the collaborative effort is supported, there may be a significant reduction in violent sexual cases. The Nigerian security systems should team with counselors to review the international human rights law framework in relation to violence against sexual consent of women and girls. Through the review, they will provide the frameworks on which action should be taken regarding the treatment approach. It will also highlight areas that require changes to security policies while allowing international standards to remain.

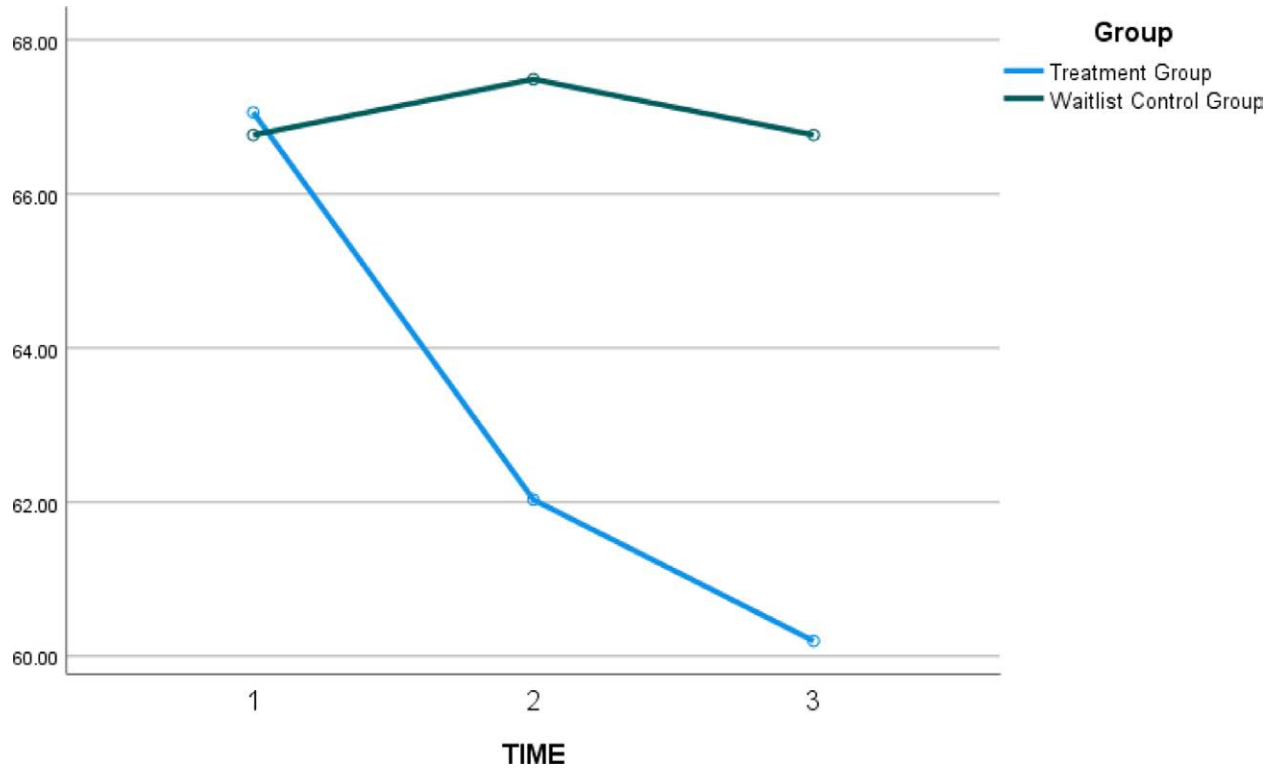

Figure 2. The nature of the interaction effect of time and treatment on the risk level of hypersexual behaviors.

5. Limitations

Treatment was not given to the comparison group, which may also pose a limitation. Assigning participants from one location to a control group and a second location to a treatment group may present a confounding variable. We did not use any risk assessment tool to determine if the participants are at a high-risk level. There were no significant differences in some of the variables discussed at the beginning of the result section and presented in Table 1, some of those differences are marginally significant. Another major flaw of the study is the small sample size. We implore future researchers to use a larger sample size.

Author contributions

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