

EFFECTS OF MINDFULNESS BASED COGNITIVE AND REALITY THERAPIES ON THE MANAGEMENT OF SUBSTANCE ABUSE RELATED PROBLEMS AMONG ADOLESCENT-STUDENT IN LAGOS STATE, NIGERIA

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Abstract

The rate at which adolescents involved in substance abuse is on the increase, it is a worldwide problem that people especially youths are facing. Thus, this study examined effects of mindfulness-based cognitive and reality therapies on management of substance abuse related problem among adolescent students in Lagos state. Three research hypotheses were analyzed using ANCOVA. The quasi-experimental pretest/post test control group research design was adopted. The first stage was selection of three local government areas in Lagos state out of 20 Local Government Areas using simple random sampling technique through hat and draw method. The second stage involved selection of one senior secondary school from each in the three local government area using systematic sampling technique. The third stage involved selection of all identified adolescents (those who score above 25) who were involved in substance abuse in each of the selected school using Craft Screening Test. The instrument for the study were Craft screening test; the Depression, Anxiety and Stress Scale, Buss-Perry Aggression Questionnaire (BPAQ), Rosenberg Self Esteem Scale, Peer-Pressure Scale with the following 0.93, 0.75, 0.89, 0.77 and 0.84. A total of 101 identified students were selected for the study using purposive sampling techniques. There were three groups namely; Mindfulness-based cognitive therapy (MBCT), Reality therapy (RT) and Control group (CG). The finding revealed that; Post-test mean score on aggression differ among adolescents exposed to experimental conditions, there is significant difference in the post-test mean scores on peer pressure among adolescents across the treatment and the control groups. Counsellors should regularly engage this category of adolescents with the expertise involved in the use of Mindfulness-Based Cognitive Therapy to treat the related problems.

Keywords – Aggression, Gender, Mindfulness-based cognitive therapy, Reality therapy, Peer Pressure,

Introduction

Substance abuse by adolescents and young people are on the rise which pose significant threat to their psychosocial adjustment and this needs to be addressed. World Health Organization refers to substance abuse as inappropriate consumption or use of substances, including alcohol and illicit drugs (WHO 2014). Substance abuse can lead to dependence syndrome - a cluster of behavioral, cognitive and physiological phenomena that develop after repeated substance abuse and that typically include strong desire to take the drug, difficulties controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance and sometimes a physical withdrawal state (WHO 2014).

Substance abuse among various population is virtually every country of the world and is assuming an increasingly alarming dimension, a tendency which if left unchecked, could spell disaster of an unimaginable proportion (WHO 2018). The rate at which adolescent are involved in substance abuse is on the increase, it is a world problem that people especially youth are facing. The upsurge in the use of psycho-active substance has led to an increase in the mental disorder, mood disorder, criminal acts and cult activities in both secondary school and higher institutions of learning.

Furthermore, the Nigerian National Drug Law Enforcement Agency (NDLEA, 2020). The National Drug Law Enforcements Agency (NDLEA) said approximately 14.3 million Nigeria are involved in drug abuse, this agency is in charge of drug policy and control in Nigeria, within this purview, the agency has the mandate to curtail illicit production, importation, sale and trafficking of psycho-active substance. Section 19 of the NDLEA ACT prescribed punishment ranging from 15-25 years imprisonment for anyone who misused, import or trafficked substances. Individual involved in substance abuse misbehaves a lot in the society, the individual may not only suffer physical and psychological problems but also loses the ability to interact with family, peers and society (Ali 2022)..

There are different drugs that can be abused, the commonly abused drugs both legal and illegal have chemicals that can change how body and mind work, they can give a pleasurable high case stress or help avoid problems in life. Substance abuse and misuse represent one of the most important health problems in western societies. Substance abuse is used to refer to anything that can be abused whether or not they have been generally or internationally accepted as drugs (Agwogie, 2021). Some of the commonly abused drugs are: stimulants, depressants, hallucinogens, opium-related pain killer among others. Most

of the adolescents keep solace in taking substance abuse to compensate aggression and problem of peer-pressure.

Adolescence state itself is the most critical state before adulthood. Adolescents are disposed to different vices such as alcohol and other substance abuse across the globe. The term adolescence meaning “to grow”. Adolescence is the period of change and transformative stage in an individual's life. During adolescence, physical change in specific areas of the maturing brain result in individual cognize and behavioral changes (Casey, creels & Galvan, 2018). The development of adolescents bring several periods where adolescents are vulnerable and at high risk of initiating substance abuse. Prevalence of substance abuse increase from early to late adolescence, peak during the transition to young adulthood (Griffin & Bovine, 2014).

Sometimes, adolescents cannot easily explain why they act the way they do; they may just be confused about it or simply see antisocial or psychosocial behavior as appropriate ways to deal with what they experience. Some influencing and critical factors may include marital crisis between parents; frequent fight and or hostility among the family members. Many adolescents today are being confronted with a lot of problem related to substance abuse which resulted into psychosocial problems. Some adolescent face pressures which include poverty, parental problem and gangs. Some are concerned about significant issues such as aggression and peer pressure which may make them aggressive after taking substance (Sam, 2015 & Connor, 2021) When adolescents are under pressure due to various psychosocial factors they may become violent and they can manifest in a number of antisocial behaviors(Dou, 2015).

As individuals approach adolescence, they spend significantly more time with peers, overall, adolescent' experiences within the peer group provide opportunities for identity explorations, the development of autonomy, and the socialization of appropriate sexual behavior (Santrock, 2014, Gouws 2018 & Watts, 2019, Berk 2020; Steinberg, 2021). Family relationship are altered as the process of differentiation begins to take place and adolescents rely more on peers, seek increased independence, and are less willing to see themselves as part of a hierarchy that is headed by their parents. As a result, the parent-adolescent relationship experiences increased conflict and decreased closeness (Berk, 2010; Steinberg, 2012, Santrock, 2014, Gouws, 2018 & Watts, 2019). However, a decrease in closeness does not relegate the parent-adolescent relationship to one without importance.

Peer pressure according to Steinbery (2021) is the direct or indirect influence on people by peers, or the effect on an individual who is encouraged and wants to follow their peers by changing their attitude, values or behaviors to conform to those of their influencing group or individual. Peers draw social comfort from members of their age group and provide support and security for them during the initial ventures into the larger society (Osarenren, 2002) along with the general trend toward greater independence and with less time under adult supervision, adolescence encounter new and potentially risky situations with which they have little or no experience to make good decisions. For example, attachment to deviant peers group and peer pressure to engage in misbehavior become a large component of the threat that comes during this stage of life (Steinberg, 2021). Thus, adolescence today is unfortunately not only a period of preparation for and transformation to adulthood, but has become a period in which adolescents increasingly face many challenges for which they are not prepared.

The Majority of aggression, anxiety and substance abuse cases, often times, emerge during adolescence, making post-secondary students to be among the group (Auerbach, Alonso & Aximn, 2016). However, the relation between aggressive symptoms and substance abuse clear is not entirely clear neither is there any clear evidence of whether it is the mental problem or the risk of whether all substances have the same emotional connection with the problem (Ross, 2018).

Mindfulness-Based Cognitive Therapy (MBCT) incorporates elements of cognitive therapy on the management of substance abuse related problem. It is an intervention for relapse prevention with recurrent psychological problems such as Aggression and peer pressure. It had been applied to various psychiatric conditions. The Therapeutic stance of MBCT focuses on encouraging patients to adopt a new way of being and relating to their thoughts and feelings while placing little emphases on altering or challenging specific conditions.

Reality Therapy (Glasser, 1998) has strong prospects in helping to alleviate psychosocial problems. This therapy is based on the choices which differ from conventional psychiatry, psycho analysis e.t.c. Reality therapy believes we are the architect of whatever become of us. Adolescents that are involved in the use of substance and is some psychosocial problems should find a way of coming out of the challenge rather than thinking of the effects. Reality Therapy teaches decision making whereby the effected clients focus on how to come out of the present situation and become a better person.

Statement of the Problem

Adolescents' substances abuse has reached high levels in recent decades. The Prevalence rates of adolescents' substance abuse are alarming and further complicated by associated high-rise behaviours and psychosocial problems. Substance abuse is generally initiated in adolescence or early adulthood: these problems can be in any area of adolescents' functions: physically, family social, academic etc. they can lead to physical and psychological dependence, making the person to continue taking the drug despite adverse consequences.

Substances abuse can be linked to aggression, anxiety, mood disorders etc which can affect adolescents' growth and wellbeing. Substance abuse is a problem because it can prevent the adolescents from completing the developmental tasks of adolescences as dating, establishing a career; and building rewarding personal relationships because substance abuse changes the way people approach and experience interactions, the adolescents' psychological and social development is compromised as if the formation of a strong self-identity. The use of alcohol or drugs may hinder the emotional and intellectual growth of adolescents. Some adolescents may use substances to compensate for lack of rewarding personal relationships. Instead of developing a sense of empowerment from healthy personal development, the substance using adolescent is likely acquired a false self-image as he becomes more entrenched in the substance experience.

Hypotheses

To aid the study, hypotheses were formulated

1. There is no significant difference in the post-test mean scores on aggression among adolescents exposed to Mindfulness Based Cognitive Therapy, Reality Therapy and Control Group.
2. There is no significant difference in the post-test mean scores and peer pressure among adolescent exposed to the three experimental conditions.
3. There is no significance gender different in the posttest mean scores on aggression and peer pressures among adolescence across the treatment and the control group.

Methodology

The research design for the study was quasi-experimental, pre-test, post-test control group design. The quasi-experimental design was employed because it involves human behaviour where randomization of subjects may not be permitted. (Iloru, 2015, Nwadhigwe, 2016). Three experimental group will be for the study namely;

Mindfulness-based cognitive Therapy MBCT), Reality Therapy (RT) and Control Group. The population for the study comprised adolescent students in Lagos State. Multi-stage process was employed to select both the schools and the participants. The first stage was the selection of three Local Government Areas in Lagos State out of 20 Local government areas using simple random sampling technique through hat and draw method. The second stage involved selection of one Senior Secondary School from each of the three Local Government Areas using simple random sampling technique. The third stage involved the selection of all identified adolescents (those who score above 25) who are involved in substance abuse in each of the selected schools using the CRAFFT Screening Test. A total number of 101 students were selected for the study using purposive sampling technique. The three groups were assigned to mindfulness-based cognitive therapy, reality therapy (RT) and Control Group. The control group was not given any treatment during the study but was given some training to keep them busy throughout the study. The instrument for this study include: Craft screening test by John Knight, 2016; the Depression, Anxiety and Stress Scale by Fernando Gomez 2021, Buss-Perry Aggression Questionnaire (BPAQ) by Buss and Perry,1992, Rosenberg Self Esteem Scale (RSES) by Rosenberg,1965, Peer-Pressure Scale (PPS) by Singh & Saini, 2010 with reliability of 0.93, 0.75, 0.89, 0.77 and 0.84 respectively. The intervention covered seven weeks. Three hypotheses guided this study and data collected was analyzed using descriptive and infernal statistics. All the hypotheses were analyzed using analysis of covariance (ANCOVA) statistics at 0.05 level of significance.

Result

Hypothesis one: There is no significant difference in the posttest mean scores on a aggression among adolescent exposed to mindfulness based cognitive therapy, reality therapy and the control group. The outcome of the computation is representation in Table 2.

ANCOVA Computation on Aggressive due to Experimental Conditions

Source	Sum of Square	D.F	Mean Square	F	SIG
Corrected model	3146.54	3	1048.	.4587.01	.000
Intercept	422.10	1	422.10	35.02	.000
Covariate	38.17	1	38.17	3.17	.078
Group	3146.47	2	1573.23	130.52	.000
Error	1169.23	97	12.05		
Total	109217.00	101			
Corrected Total	4315.76	100			

The result in table 1 shows that for calculated value ($F = 103.52; p < 0.05$) has significant reduction in mean aggression because of the experimental conditions. The null hypothesis was rejected, and it was concluded that there was significant difference in the post-test mean scores on aggression among adolescent exposed to Mindfulness Based Cognitive Therapy, Reality Therapy and the Control Group. Pairwise Analysis was carried out to determine the pair with significant difference. The result of the analysis is presented in table 2

Table 2:

Pairwise comparison scores on aggression with respect to the experimental group

(I)Experimental Group	(J)Experimental Group	Mean difference I - J	SIG b
MBCT	RET	-.391*	.667
	COG	-11.921*	.000
RET	MBCT	-.391*	.667
	COG	-11.530*	.000
COG	MBCT	11.921*	.000
	RET	11.530*	.000

Based on the estimated marginal means

- The means difference is significant at the .05 level. B adjustment for multiple comparisons: least significant difference (equivalent to no adjustment).

The outcome in Table 3 shows that the pair of MBCT and COG ($t = -11.921; p < 0.05$) as well as RET and COG ($t = -11.921; p < 0.05$) were observed as the group with significant difference

Hypothesis 2:-There is no significant difference in the post-test mean scores on peer pressure among adolescents across the treatment and the control groups. to the three experimental conditions

An inferential statistics of analysis of covariance was calculated to ascertain the significance of the mean difference and the result is presented in Table 3.

Table 3

ANCOVA computation on self-esteem because of Experimental Conditions

Source	Sum of Square	D.F	Mean Square	F	Sig
Corrected model	4587.92	3	1529.31	69.56	.000
Intercept	859.95	1	859.95	39.11	.000
Covariate	1318.07	1	1318.07	59.95	.078
Group	3747.61	2	1873.81	85.22	.000
Error	2132.71	97	21.99		
Total	195280.60	101			
Corrected Total	6720.63	100			

The F- calculated result ($F= 21.99$; $P < 0.05$) presented in the Table 3 shows that there is significant difference in the post-test mean score on peer –pressure among adolescents across the treatments and the control groups. Therefore the null hypothesis was rejected and the alternative hypothesis was accepted. Pairwise analysis was conducted to ascertain the pair in the experimental group that was significant and the outcome is presented in Table 4.

Table 4; Pairwise comparison scores on Peer pressure with respect to the experiment groups

(I)Experimental Group	(J)Experimental Group	Mean difference I – J	SIG b
MBCT	RET	-.417*	.667
	COG	-10.23*	.000
RET	MBCT	-.4.17*	.667
	COG	-14.39*	.000
COG	MBCT	10.23*	.000
	RET	14.39*	.000

Based on estimated means

- The mean difference is significant at the 0.05 level
- b. The adjustment for multiple comparisons; Least significant difference (equivalent to no adjustment) the pair of the experimental group of MBCT and RET ($t = 4.17$; $p < 0.05$); MBCT and COG ($t = 70.23$; $p < 0.05$) as well as RET and COG ($t = 14.39$; $p < 0.05$) was significant.

Hypothesis 3: There is no significant gender difference in the post-test mean scores on aggression among adolescents across the treatment and the control group.

Analysis of covariance was computed to determine the significance of the gender difference because of the experimental conditions and the result is presented in Table 5

Table 5:

ANCOVA Computation on Aggression because of experimental conditions and gender.

Source	Sum of Square	D.F	Mean Square	F	Sig
Corrected Model	3194.30	6	532.38	44.62	.000
Intercept	415.33	1	415.33	34.81	.000
Covariate	36.57	1	36.57	3.07	.083
Group	2983.73	2	1491.86	125.05	.000
Gender	11.73	1	11.73	19.01	.324
Group * Gender	38.2	2	19.01	11.93	.209
Error	1121.46	94	11.93		
Total	109217.00	101			
Corrected Total	4315.76	100			

The F-calculated value ($F= 1.59$; $p > 0.05$) observed in Table 14 led to upholding the null hypothesis it was concluded that there is no significant gender difference in the post-test mean scores on aggression among adolescents across the treatment and the control group.

Discussion of Findings

The findings revealed that there was significant difference in the post-test mean scores on aggression among adolescent exposed to Mindfulness Based Cognitive Therapy, Reality Therapy and the Control Group. Reality therapy and mindfulness-based cognitive therapy were both useful in reducing aggression among adolescents, but the former had better, means difference. This implies that, there exists difference in the aggression among participants as a result of exposing to experimental conditions. The result was in line with the assertion of Anderson, & Dew all (2022) who proclaimed that behavior is heavily (and interactively) influenced by both person logical and situational variables. As such, any given instance of aggressive behavior can be dimensionally classified based upon the extent to which it is influenced by person factors, situation factors, or both. Examples of person factors that increase the likelihood of aggression include traits (e.g., narcissism or susceptibility to hostile attribution, perception, and expectation biases), sex (male tend to be more physically aggressive and more likely to engage in violent behaviors), beliefs (e.g. aggression-related self-efficacy and outcome-

efficacy 2 beliefs) attitudes (e.g. positive attitude toward violence in general or violence against certain groups) values (e.g. valuating personal honor and answering violations of honor with violence); Long term goals (e.g. desiring to be feared or desiring wealth by any means necessary), and scripts (e.g. believing that the only viable response to being punched is to punch back). Similarly, the finding was also in aggressive act does not guarantee that aggression will occur; being angry all other does not mean that one will necessarily and aggressive conditions work interactively to influence aggressive behavior.

Again, there is significant difference in the post-test mean scores on peer pressure among adolescents across the treatment and the control groups. The result was in agreement with the finding of Steinberg (2002) who asserted that peer-pressure is the direct or indirect influence on people by peers, or the effect on an individual who is encouraged and wants to follow their peers by changing their attitude, values or behavior to conform to those of their influencing group or individual. It was in agreement with the assertion of Osarenren (2002) who asserted that peers draw social comfort from members of their group and provide support and security for them during the initial ventures into the larger society.

Furthermore, the finding revealed that there is no significant gender difference in the post-test mean scores on aggression among adolescents across the treatment and the control group. The result is in line with the findings of Akinlabi (2021) who found out that research on gender and aggression has shown that men tend to be more physically aggressive, while women may exhibit more relational or verbal aggression. However, the extent and value of these differences can vary based on cultural, social and situational factors. The result is also in line with the finding of Archer (2022) who conducted a meta-analysis of studies on physical aggression and found no significant gender. Differences in post-test mean scores when controlling for various confounding variables.

Conclusion

This study is on effects of mindfulness based cognitive and reality therapies on the management of substance abuse related problems among adolescent-student in Lagos state, Nigeria. The finding revealed that mindfulness based cognitive therapies were effective in reducing aggression among the participants, however, mindfulness based cognitive therapies was more efficacious and no significant gender effect in the post-test mean scores on aggression among adolescents across the treatment and the control group. This then mean that gender does not play significant role when examining the impact of psychoactive substances use among adolescents.

Recommendations

It is recommended that school Counsellors and psychologists should employ mindfulness based cognitive and realities therapies to treat some psychological and social behaviours inimical to the wellbeing of adolescents in this era of substance use disorder among generation of youth.

Rehabilitation homes should also be encouraged to employed mindfulness based therapy in managing some psychological disorders among their clients.

References

- Andersen, M.H.T. (2014). Delayed effects of early stress on hippocampal development. *Neuropsychopharmacology*, 29, 1998-2011
- Andersen, M.H. (2014). *Desperately driven and no brakes: developmental street exposure and subsequent risk for substance abuse*. New York: stock brook publisher.
- Anthony, J. C., Chen, C.Y., & Storr, C. L. (2015). Drug dependence epidemiology. *Clinical Neuroscience research*, 5, 55-73.
- Anthony, J. C., Petronis, K.R. (2015). Early-onset drug use and risk later drug problems. *Drug and alcohol dependence*, 40, 9-27.
- Barlow, D., Nock, M., & Hersen, M. (2019). Single case experimental designs: Strategies for studying behavior change (3rd ed.). *Journal of Clinical psychology*, 1(3)35—48.
- Bonnie, R. J., & Scott, E. S. (2017). The teenage brain: Adolescence brain research and the law. *Current directions in psychological Science*, 22, 158-176.
- Botvin, G. J. (2020). Preventing substance abuse in schools: social and competence enhancement approaches targeting individuals-level etiological factors. *Addict behavior*, 25, 887-897.
- Botvinick, M., Nystrom, L. E., Fissell, K., Carter, C. S., & Cohen, J D. (2019). Conflict monitoring versus selection-for-action in anterior cingulate cortex. *Nature*, 40(2), 179-197.
- Buss, A. H., & Perry, M. (2015). The aggression questionnaire. *Journal of social psychology*. 63(3), 452-469.
- Casey, B. J. (2015). Beyond simple models of self-control to circuit-based accounts of adolescent behavior. *Annual review of Psychology*, 66, 295-319.
- Castro, M.G., Oliveira, M.S., Moraes, J.F.D., Miguel, A.C., & Araujo, R.B. (2017). Quality of life and severity of tobacco dependence. *Revista de Psiquiatria Clinica*, 34(2), 61-82.
- Osarenren, N. (2002). *Child development and personality*. Accra: Hittscher Printing