

## Influence of Abortion Stigma, Behaviour Pattern and Distress Tolerance on Substance use among Adolescents

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### Abstract

*The study assessed the influence of abortion stigma, behaviour pattern and distress tolerance on substance use among adolescents. In determining the influence of abortion stigma, behaviour pattern and distress tolerance on substance use among adolescents, four (4) scales were used namely; Abortion stigma Scale by Shellenberg. Levandowski. B., Hessini, L. (2014), Type A behaviour scale by Omoluabi, (1997). Distress tolerance scale by Simon and Gaher's (2005), and Substance use scale by Montgomery County Court Referral Program (Court Administered Alcohol & Drug Service Program) (2012). Participants were 217 students from three secondary schools in uyo, Akwalbom state. The sample for this study included 106 males and 111 females selected using purposive sampling technique. The design used in this study was cross sectional survey design and statistics used for this study was a  $2 \times 2 > 2$  analysis of variance for unequal sample size. The result of the findings showed that abortion stigma had a significant influence on substance use among adolescents [ $F, (1209) = 26.36, P < 0.01$ ]. Behaviour pattern exerted a significant influence on substance use among adolescents [ $F, (1209) = 6.29, P < .05$ ]. Distress tolerance did not exert a significant influence on substance use among adolescents. Therefore, two of the hypotheses were accepted and the other two were rejected. Recommendation and suggestion for further study was also advanced.*

**Keywords:** *abortion, stigma, behaviour pattern, distress tolerance substance, adolescents*

### Introduction

Adolescence begins with the hormonal and physical changes of puberty and continues until an individual reaches a stable, independent societal role (Balocchi, Chiamanti, & Lamborghini, 2013). During this period, adolescents are particularly susceptible to risky behaviors, such as substance abuse, teen pregnancy, violence, school failure, and eating disorders (Callahan, 2003). This stage is also critical for brain development, making adolescents more vulnerable to the effects of psychoactive substances than other age groups (Chia, 2015). Substance use, which includes alcohol, drugs, and other mind-altering substances, can escalate from experimentation to recreational use and potentially to harmful misuse and dependence. Extensive research has focused on understanding these stages and their impact on the developing adolescent brain.

Drug definitions often ignore legality, social acceptability, and value, leading to logical inconsistencies. For example, excluding alcohol and tobacco from drug categories raises questions about society's approval of their use despite health costs, while disapproving of cannabis and ecstasy for youths (Room, 2003). Poly-substance use is troubling, with biochemical theories suggesting frequent use alters the dopamine system, and psychological theories indicating positive evaluations of one substance may generalize to others (Newcomb, 1995). Adolescents who smoke and drink are likelier to use illicit drugs, influenced by factors like family cohesion and peer approval (Hawkins, 1992).

Drinking, marijuana use, and delinquent behaviors can signify maturity or rebellion in adolescents. Sensation seekers may engage in high-risk sports or experiment with psychotropic substances for excitement. Substance use often co-occurs in shared contexts like social settings where both alcohol and smoking are prevalent. According to expectancy-value theories, the determinants of substance use are specific to each substance. For example, the theory of planned behavior suggests marijuana use is influenced by attitudes toward marijuana, while alcohol use is driven by factors specific to alcohol. In Ireland, adolescents frequently experiment with alcohol and tobacco due to their availability and social acceptance, driven by curiosity, anticipated effects,

and youth culture. However, this experimentation typically does not lead to habitual or dependent use and often stops once initial curiosities are satisfied.

Adolescent abortion issues are influenced by the cultural context of their country, and although abortion has been common historically, its impact varies widely, with many adolescents facing significant health risks from unsafe procedures (Devereux, 1976; Åhman & Shah, 2004; WHO, 2007).

According to Ipas (1978), stigma is a negative attribute assigned to women who seek abortions, marking them as deviating from ideals of womanhood; this stigma also affects those connected to abortion, such as medical providers and supporters, and remains under-researched (Henshaw, 1998; Kumar, Hessini, & Mitchell, 2009).

Silence is an important mechanism for individuals coping with abortion stigma: people hope that if no one knows about their relationship with abortion, they cannot be stigmatized. Nevertheless, even a concealed stigma may lead to an internal experience of stigma and health consequences (Quinn & Chaudior, 2009). The majority of these women live in the developing world and half of those who die are under the age of 25 years (World Health Organization, 2007).

Abortion stigma can be transitory or episodic for some patients, re-emerging only at specific moments, such as when facing anti-abortion rhetoric from others or being asked about reproductive history by healthcare providers (Jones et al., 2010). Women who have had abortions are a diverse group with varying reasons for terminating their pregnancies (Finer et al., 2005). In public discourse and from the perspective of women having abortions, there is a prevalent idea that "good abortions" and "bad abortions" exist based on the perceived acceptability of the reasons for having them. Stigma experienced by women who have had abortions may be mitigated or exacerbated by whether their abortions fall into one category or the other, with "good abortions" being those judged as more socially acceptable, such as those due to fetal abnormalities, contraceptive failure, or occurring in specific circumstances like rape or incest (Furedi, 2001). Women who have had abortions may also be both the stigmatizer and the stigmatized, believing they had "good abortions" and distancing themselves from others who had "bad abortions" (Rapp, 2000; Arthur, 2000).

As Kumar et al. (2009) deftly demonstrate abortion violates two fundamental ideals of womanhood: Nurturing motherhood and sexual purity. The desire to be a mother is central to being a "good woman". Abortion, therefore, is stigmatized because it is evidence that a woman has had "no procreative" sex and is seeking to exert control over her own reproduction and sexuality, both of which threaten existing gender norms (Kumar et al., 2009). The stigmatization adolescents experience may not be rooted in the act of aborting a fetus; stigma may instead be associated with having conceived an -unwanted pregnancy, of which abortion is a marker. Stigma may be associated with feelings of shame about sexual practices, failure to contraceptive effectively, or misplaced faith in a partner who disappoints. Abortion can be seen here as one of several "bad choices" 'about sex, contraception, or partner (Furedi, 2001).

A behavior pattern is a consistent way an individual or group acts in a given situation. Type A behavior pattern addresses how people handle stress and is better understood as a continuum, with Type-A and Type-B at the extremes. Cardiologists Friedman and Rosenman discovered Type A behavior when they noticed their waiting-room chairs wore out unusually fast. An upholsterer pointed out that their patients, unlike typical ones, were restless and wore out chair arms by frequently sitting on the edge and leaping up. In 1976, Friedman and Rosenman termed this behavior Type A personality. They found that people with Type A behavior have a higher risk of heart disease and high blood pressure than those with Type B behavior.

Type A individuals are highly competitive, self-critical, and driven, often without enjoying their achievements. They experience life imbalance with high work involvement, easily get agitated, and frequently have high blood pressure. Constantly feeling time-pressured, they become impatient with delays, overschedule, and multitask. In contrast, Type B individuals are more tolerant, relaxed, reflective, less anxious, and more creative.

Also, Type A personality implies a temperament which is stress prone, concerned with time management. They are ambitious, rigidly organized, hard-working, anxious, highly status

conscious, hostile and aggressive. Type B in the other hand is one that is less prone to stress, easy going, work steadily, enjoy achievement, modest ambition, and live in the moment. They are social, creative, thoughtful, procrastinating. Type B personality, by definition, are noted to live at lower stress levels. They typically work steadily, and may enjoy achievement, although they have a greater tendency to disregard physical or mental stress when they do not achieve. When faced with competition, they may focus less on winning or losing than their Type A counterparts, and more on enjoying the game regardless of winning or losing.

Unlike the Type A personality's rhythm of multi-tasked careers, Type B individuals are sometimes attracted to careers of creativity: writer, counselor, therapist, actor or actress. However, network and computer systems managers, professors, and judges are more likely to be Type B individuals as well. Their personal character may enjoy exploring ideas and concepts.

Scientific attention has. Increasingly been focused on distress tolerance due to its potential role in the development and maintenance of multiple forms of psychopathology, and as a trans diagnostic clinical target for intervention/prevention programs. Distress tolerance reflects an individual's perceived or behavioral capacity to withstand experiential/subjective distress related to affective, cognitive, and/or physical states (e.g., negative affect, physical discomfort). Scholars have therefore suggested it is an individual difference factor for stress responsivity and psychological vulnerability. Conceptual models of distress tolerance suggest that the construct may be hierarchical in nature. Specifically, there may be one global "experiential distress tolerance" constructs incorporating other, specific low order construct.

Distress intolerance in the other hand is a perceived inability to fully, experience unpleasant, aversive or uncomfortable emotions, and is accompanied by a desperate need to escape the uncomfortable emotions. Difficulties tolerating distress are often linked to a fear of experiencing negative emotion. Often distress intolerance centers on high intensity emotional experiences, that is, when the emotion is 'hot', strong and powerful (e.g., intense despair after an argument with a loved one, or intense fear whilst giving a speech). An important thing to consider when assessing levels of distress tolerance is that like many things in life, doing anything at the extreme can be unhelpful. Think of distress tolerance as a continuum where at one end' people can be extremely intolerant of distress, and at the other end people can be extremely tolerant of distress.

Distress tolerance is widely accepted to be a clinically relevant capacity to both internalizing and externalizing symptoms (Leyro et al., 2010). Consequently, a negative reinforcement approach has been adopted to understand the commonality of distress tolerance to this broader scope of psychopathology (Baker, Piper, McCarthy, Majeskie, & Fiore, 2004). Negative reinforcement refers to the motivation to avoid or escape negative affective states, and has typically been applied within an addiction framework, wherein repeated substance use alleviates distress associated with withdrawal (Baker et al., 2004). In studies of adults, substance-dependent individuals are reported to have lower tolerance of distress (Quinn, Brandon, & Copeland, 1996), and distress tolerance is related to recent abstinence duration and treatment retention among residential treatment-seeking substance abusers (Daughters, Lejuez, Bornova, et al., 2005; Daughters, Lejuez, Kahler, Strong, & Brown, 2005).

### **Statement of Problem**

Substance use by young people is on the increase, and initiation of use is occurring at ever-younger ages. Patterns of substance use over the past 20 years have been documented by two surveys—the National Household Survey on Drug Abuse conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) in 1998, and the Monitoring the Future Study conducted by the National Institute on Drug Abuse (NIDA,) in 1996.

Drug use remains a significant problem in the United States, however adolescent drug use is particularly damaging as such use can affect the physical and mental development of younger people and can impact their opportunities later in life. In 1991, approximately 30.4 percent of

those in school grades 8, 10, and 12 had used illicit drugs at some point in their lives ([Statista Research Department, 2018](#)). This number reached a high of 43.3 percent in 1997, but dropped back to around 33 percent in 2017. As of 2017, marijuana was still one of the most used drugs among adolescents with around 80 percent of 12th graders perceiving marijuana as fairly easy to obtain, compared to 27.3 percent of those perceiving the same for cocaine ([Statista Research Department, 2018](#)). Cocaine use among high school students is highest among Hispanic males, with 9.4 percent of this population stating they had used cocaine at least once as of 2015, ([Statista Research Department, 2018](#)). The issue of drug abuse places a significant threat to the social, health, economic fabrics of the families, society and the entire nations. (Giade, 2011). Almost every country in the World is affected from one or more drug being abused by its citizen's (UNODC, 2007). The United Nations Office on Drug and Crime (UNODC) and World Health Organization (WHO) 2016 estimate reports that 246 million people or out of 20 persons between the ages of 15 and 65 years have used an illicit/ psychoactive substance in the year 2013. Traditionally drugs of abuse included alcohol, tobacco, and caffeine in tea, coffee, cola drinks and kola nuts, plant-derived substances such as cocaine, heroin and cannabis.

Substances abused by youths brought as patients to the psychiatric unit of the Federal Medical Centre, Makurdi with substance use disorders include alcohol, cannabis, tobacco, solution, tramadol, cough syrups, codine, cocaine, zakami, skunk, valium, African cocaine, fuel, dried skin of frogs (Chia, Awopetu, Ugehe & Apaa, 2015). The current trend in drug abuse is towards poly-drug use among the young people (Chia, et. al. 2015) where 61% of the patients who are youths engaged in poly-drug abuse, combining "traditional" drugs, prescription drugs, alcohol and new psychoactive substances, which has evidenced an even more dramatic picture of its consequences. Another trend is that of the increase in injecting drugs by youths, with heroine, pentazocine, cocaine, ketamine and methamphetamine reported as the mostly injected drugs among youths (OSIWA, YOUTHRISE & CISHRWIN, 2015). The age of initiation of drug use is at a young age, Chia, et. al. 2015 and OSIWA, et. al. 2015 reported below 10-25 years and 9-15 years respectively.

Household products are abused as well as illegal drugs: The percentage of youths 12 to 17 years old who tried inhalants rose from 1.1 percent in 1991 to 2.2 in 1994 (NIDA). "Heroin chic" as exemplified by rock stars and fashion models has boosted the popularity of that drug among young people. Panel members reported that in some areas, the adolescent use of heroin mixed with water and then inhaled has increased. Clearly, drug use trends among young people are a major national concern. Within the context of national surveys of frequency of use, the prevalence of those meeting criteria for a diagnosis is becoming clearer.

Easy availability of substances, especially the licit ones, has been the most common reason for continuation, followed by relief from stress, and acceptability among friends. These reasons have been cited even by other authors, (Komro K. A., Maldonado-Molina M. M., Tobler A. L., Bonds J. R., Muller K. E., 2007). Users are mainly responsible for influencing their peers and close contacts into taking up the habit, as is seen in the present study as well as in other studies. Influence of peers and close contacts who use substances are usually responsible for initiating their use in others and this is evident in the present study as well as in related studies, (Mpabulungi L., Muula A. S., Singh V, Gupta R., and Sinha D. N., 2006) where users have been accountable for instigating the habit. The problem of Abortion stigma is so alarming as it causes a lot of psychological damages to individuals which may likely make them vulnerable to substance use. Under some circumstances, women may experience abortion as a significant loss involving grief and/or traumatic stress, guilt, anger, anxiety, depression, and other psychological symptoms that can precipitate substance abuse (Coleman 2005). Dysfunctional coping mechanisms including substance abuse may be relied upon to self-medicate and/or numb the emotional pain. When the emotion of an abortion stigma is denied, the many physical, psychological, relational, and practical problems associated with substance abuse typically introduce new sources of pain and suffering that may compound and exacerbate the trauma of the abortion stigma. For every individual, there is a variable driving force. It is not just a single factor, but a combination of factors that lead people to substance abuse. People with Type B pattern are prone to using substances. Distress tolerance in the other hand is another factor leading to the use of substances, thereby exerting health problems and many others on the suffer. Individuals with low levels of Distress Tolerance as

indicated by the DTS tend to experience negative affect as intense, disruptive, and unacceptable, and tend to engage in behaviors aimed at reducing feelings of distress. It has been suggested that low levels of trait Distress Tolerance may potentially lead to negative outcomes (e.g. substance abuse) as individuals attempt to use maladaptive behaviors to cope with negative affect (Simons & Gaher, 2005).

### **Research questions**

Due to the problems of abortion stigma, distress tolerance and behaviour patterns, this study will give answers to the following questions;

1. Will abortion stigma have influence on substance use among adolescents?
2. Will behavior pattern have influence on substance use among adolescents?
3. Will distress tolerance pattern have influence on substance use among adolescents?
4. Will abortion stigma, behavior pattern and distress tolerance jointly have influence on substance use among adolescents?

### **Purpose of Study**

The purpose of this study is to examine the problems of abortion stigma, behavior pattern and distress tolerance as they influence adolescents' substance use. This study will also spell out the significant relationships between abortion stigma and adolescents substance use, pattern of behavior and adolescents substance use, and that of distress tolerance and adolescents substance use, with the aim of designing a most suitable solution to arrest the problem of adolescent's substance use. Specifically, the following objectives will be achieved in this study;

1. To provide other means in which victims of abortion stigma can deal with the situation / get out of it without possibly using substances.
2. To make attempts to modify maladaptive behavior patterns, thereby averting the use of substances
3. To enlighten the adolescents and the general public on other means of attaining a high level of distress tolerance other than using substances.
4. To educate / enlighten the general public on the perils of substance use.

### **Significance of the Study**

This study is not only significant to adolescents in Uyo, it would serve as a veritable tool for seminars and medium of awareness campaign on the role of abortion stigma, behavior patterns and distress tolerance as they influence adolescent's substance use. Also, the significance of this study will be to enable the adolescents and the world at large to have an insight into the health, social, and economic perils of substance use, and making them aware of the diverse measures to combat substance use among adolescents in our society. This study will also prove if abortion stigma, behavior pattern and distress tolerance are real predictors of adolescent's substance use.

This study will set out better ways of coping with abortion stigma as well as distress tolerance without necessarily using substances. This study will be significant to the general public in order to offer a unique opportunity to the adolescents to realize the various means to come out of the stigma of abortion rather than using substances, which would eventually account for a sound mental health.

## **RESEARCH METHODS**

### **Research design**

The study adopted a cross-sectional survey design. In this type of design, questionnaires are used for data collection since it is a survey, and the participants share a key characteristic which might be of interest to the researcher, but may differ in some other characteristics such as age, gender etc.



## Setting

This study was conducted in Uyo using three secondary schools, here in Akwa Ibom state. Uyo is the capital city of Akwa Ibom state in south - south region of Nigeria. These schools include; west Itam secondary school, Itam, federal government technical college, Uyo and Nigerian Treasure Academy, Uyo.

## Participants

A total of two hundred and twenty secondary school students (adolescents) consisting of one hundred and eight (107) males and one hundred and twelve (113) females, selected using purposive sampling technique participated in this study. This is a non-probability sampling technique which was used to select specific participants based on the needed ages for the research. The participant's age ranged from 11-20 with a mean age of 15.5 years. The schools used in the present study were randomly selected from many other schools in Uyo.

## Instruments

Four instruments were used in this study; they include the following:

1. Abortion stigma Scale by Shellenberg, KM, Levandowski, B., Hessini, L. (2014).
2. Type A behaviour scale by (Omoluabi, 1997)
3. Distress tolerance scale by Simon and Gaher, (2005)
4. Substance use scale by Montgomery County Court Referral Program (Court Administered Alcohol & Drug Service Program), (2012)

Abortion stigma scale by Shellenberg, KM, Levandowski, B., Hessini, L, (2014): The instrument was developed by the two persons named above. The instrument contains 18-items. The three identified subscales are: Negative stereotypes (8 items), Discrimination and exclusion (7 items), Potential contagion (3 items). The response categories for the instrument is set up on a Likert scale from "strongly disagree" to "strongly agree" with each response being assigned a value ranging from 1-5. All other items were directly scored except item 15 was reverse coded so that a higher score ranging from 48 and above reflects a more stigmatizing attitude while lower scores below 48 does not. A pilot study was done to revalidate this scale. The scale had a Cronbach alpha of .889. No item was deleted as result of the pilot study.

Type A behaviour scale by (Omoluabi, 1997): The instrument was developed by Omoluabi (1997). It contains twenty eight (28) items which are made up of components such as speed and impatience, job pressure and driving that are scored differently on a four point response pattern, 1, 2, 3, 4 items such that high score indicate type A behaviour. 1-never true, 2-occasionally true, 3- often true, 4-always true. The instrument has a high Cronbach alpha internal reliability coefficient of .882. High scores on the scale ranging from 69 and above reflect Type A behaviour pattern, while lower scores which are below 69 reflect Type B. A pilot study was done to validate this scale and three items were deleted leaving the scale with 25 items with item 11 being reverse scored.

Distress tolerance scale by Simon and Gaher's (2005): Distress tolerance scale was developed by Simon and Gather, (2005). The scale has 15 items with only item 6 being reversely scored. The Scale is rated on a five, point likert form 1-5, from strongly agree to strongly disagree. High scores ranging from 45 and above reflects low distress tolerance while lower scores below 45 reflect high distress tolerance.

A pilot study was conducted to validate the scale. After validation, a cronbach alpha of .909 was obtained. Validity scored for item by item total correlation ranged from 0.32 to 0.81. One item was deleted making the validated scale a fourteen item scale with item 6 still reverse scored. The scale had a Cronbach alpha of .882.

Substance use scale by Montgomery County Court Referral Program (2012): The Montgomery Court developed and administered the instrument on Alcohol & Drug Service Programs. The scale has 12 items with a five point likert format 1-5, ranging from strongly agree to strongly disagree. All the items were directly scored in that strongly agree (5) and strongly disagree (1). High scores on the scale ranging from 37 and above shows high substance use while lower scores below 37 reflect low substance use. A pilot study was also conducted on this scale to validate it, no item was deleted. The scale has a Cronbach alpha of .903.

## Procedures

A pilot study, v/as conducted to revalidate the scales using 50 students from west Itam secondary school, Itam, Uyo. The main study was carried out in three schools as mentioned before; west Itam secondary school, government technical college, Ewet and Nigerian Treasure Academy, all in Uyo. The researcher carrying out the research attached a letter requesting permission from the principal of the schools. With the help of the research assistants, the questionnaires were distributed to the participants in person. Some copies of the questionnaires were distributed at Nigerian treasure academy, some at technical college, and some at west Itam secondary school. The participants were asked to carefully read the instrument before filling them because of its length}" nature. Afterwards, the questionnaires were retrieved from the participants so that the properly filled ones were scored and analyzed. A total of 217 filled questionnaires were returned for collation out of the 220 copies distributed. Therefore, a total of two hundred and seventeen secondary school students participated in the study.

Statistics

A 2x2x2 analysis of variance (ANOVA) for unequal sample size was used for the analysis of data since the three independent variables in the present study had two levels each and also to test for the interaction effect between them.

Results

Data analysis was performed using the statistical package for the social science (SPSS) version 20 and the result are presented below:

Table 1: table of mean"(x) and standard deviation showing the role of Abortion stigma, Distress tolerance and behaviour pattern on drug dependence among adolescent.

Result in table 1 showed that the participant who were high on abortion stigma had a mean score of 39.96 (SD=9.57) while their counterparts who exhibited low abortion stigma had a mean score of 32.2 (SD=11.56) on drug use among adolescents. The overall, mean score of participants on abortion stigma was 36.37(SD=11.20). Moreover, type A behaviour pattern participants had a

Abortion stigma	Mean	N	Std. Deviation
High	39.9569	116	9.57296
Low	32.2475	101	11.55803
Total	36.3687	217	11.20237
Behaviour pattern			
Type A	33.8485	99	9.61118
Type B	38.4831	118	12.01760
Total	36.3687	217	11.20237
Distress tolerance			
High	34.5960	99	11.31364
Low	37.8559	118	10.93514
Total	36.3687	217	11.20237

mean score of 33.85(SD=9.61) while their type B behaviour counterpart had a mean score of 38.48 (SD=12.02) on drug dependence among adolescents. The overall mean score of participants on behaviour pattern was 36.37 (SD=11.20) on drug "dependence among adolescents.

Furthermore, participants who were high on distress tolerance had a mean score of 34.60 (SD=10.93) while their counterpart who were low on distress tolerance had a mean score of 37.86(SD=10.93) on drug use among adolescents. The overall mean score of participants on distress tolerance was 36.37 (SD=11.20) on drug dependence among adolescents.

Table 2: A 2 X 2 X 2 ANOVA summary table showing the role of abortion stigma (A), Distress Tolerance (B) and behaviour pattern (C) on substance use among adolescent

Test of between-subject effect

Dependent variable: SUBSTANCE

Source	Type 111 sum of squares	Df	Mean square F		—
A	2716.884	1	2716.884	26.359	.000**
B	331.947	1	331.947	3.221	.074
C	648.638	1	648.638	6.293	.013*
A*B	334.632	1	334.632	3.247	.073
A*C	141.420	1	141.420	1.372	.243
B*C	392.142		392.142	3.805	.052
A*B*C	265.139		265.139	2.572-	.110
Error	21541.497	209	103.139		
Total	8	217			
Corrected Total	27106.507	216			

a. R squared = .205 (Adjusted R Squared =. 179) Key:  
significant at p<0.05\*\*; significant at pO.Ol

Table 2 shows the result of a 2x2x2 ANOVA which tested for the independent and joint interaction of the variables of this stud}. The result as shown in table 2 indicate that abortion stigma exerted a significant influence on substance use, (1,209) =26.36,p<0.05). An observation of the table 1 indicate that participant who expressed high abortion stigma had a mean score of 39.96 (SD=9.57) while their counterpart who expresses low abortion stigma had a mean score of 32.25 (SD=11.56) on substance use among adolescents. This result confirms the first hypothesis, which stated that participant with high abortion stigma will exhibit high substance use than their counterpart who expressed low abortion stigma.

The second result indicated that behaviour pattern exerted a significant influence on substance use among adolescents F (1,209)=6.29, p<(0.05). An observation of the table 1 showed that participant who exhibited type A behaviour pattern had a mean score of 33.86 (SD=9.61) while their type B behaviour counterpart had a mean score of 38.48(SD=12.02) on substance use among adolescents. This result affirmed the second hypothesis, which stated that participant who exhibited type B behaviour pattern will exhibit high substance use than their counterparts who exhibited type B behaviour pattern. The third result indicated that distress tolerance did not exert a significant influence on substance use among adolescents (1,209) =3.22,p<(0.05). An observation of the table 1 showed that participants who were high on distress tolerance had a mean score of 34.60 (SD=10.93) while the counterpart who were low on distress tolerance had a mean score of 37.86(SD=10.93) on substance use among adolescents. This result failed to confirm the third hypothesis, which stated that adolescents with high distress tolerance will exhibit high substance use than their counterparts who exhibited low distress tolerance. Table 2 also indicated a non-significant interaction effect of abortion stigma and distress tolerance on substance use, F(1,209) =3.25,p<(0.05); a non-significant interaction effect of distress tolerance, and behavior pattern on substance use ,F (1,209)=3.8\*0,p>(0.05) and a no significant interaction effect of abortion stigma, distress tolerance, and behavior pattern on substance use, F(1,209)=2.57,p0.05) among adolescents. This indicated that abortion stigma distress tolerance, and behavior pattern did not jointly exert influence on substance use among adolescent

Discussion



The first finding revealed that abortion stigma exerts a significant influence on substance use amongst adolescents,  $(1,209) = 26.36, p < 0.05$ . This suggests that adolescents with high abortion stigma are more likely to involve in substance use than those with low abortion stigma. This study is consistent with the findings of a research conducted by Coleman, (2005) which showed associations between abortion stigma and increased risk of substance abuse/use. This study is also consistent with the findings of Peer-reviewed research published in leading journals in the U.S. which showed a consistent and statistically significant association between abortion stigma and substance abuse of various forms, Cockrill, (2013). An assertion made by Coleman, 2005 "Several studies have found a relationship between abortion and prior substance use" is also prove right from the findings of this study. The present study is also consistent with the findings of a research by Robert et al. (2014), which showed that Abortion stigma is known to be associated to higher rates of substance abuse. This result supported the first hypothesis which stated that adolescents with high abortion stigma will exhibit high substance use than their counterparts low on abortion stigma.

The second finding from this study also indicated that behaviour pattern exerted a significant influence on substance use amongst adolescents,  $F(1,209) = 6.29, p < (0.05)$ . This result led to the confirmation of the second hypothesis which stated that adolescents with Type B behaviour pattern will exhibit high substance use than their type A counterparts. This result is consistent with the findings of the study done by (Ball, 2005; Kersten, 2012), in their research to establish a relationship between substance use and personality disorder. Their results showed that Type B personalities had more severe issues with substance abuse than Type A personalities. Another finding by Ball in 2005 in the same research revealed that Alcohol abuse is more severe among Type B alcoholics than among those who are Type A.

There were limited researches on behaviour patterns on substance use which. Would have been use to either support/accept or reject the second hypothesis.

The third finding from this study also showed that distress tolerance did not exert a significant effect on substance use amongst adolescents,  $(1,209) = 3.22, p < (0.05)$ . This study failed to confirm the third hypothesis which stated that adolescents with low distress tolerance will exhibit high substance use than their counterparts with high distress tolerance. This study contradicts with the findings of study conducted by Simons and Gaher, (2005). Their result suggested that low levels of trait Distress Tolerance may potentially lead to negative outcomes (e.g. substance abuse) as individuals attempt to use maladaptive behaviors to cope with negative affect. The study also contradicts with the outcome of studies conducted by O'Cleirigh, Ironson, & Smits, (2007); Zvolensky et al, (2009). They found that low levels of Distress Tolerance as measured by the Distress Tolerance scale have demonstrated relations with a number of problematic substance use outcomes, including coping motives for substance use (i.e. using substances as a means of coping with negative affect), alcohol related problems ( Simons & Gaher. 2005), *alcohol and marijuana use among college students* ( Buckner, Keough. & Schmidt, 2007) and *alcohol and cocaine use among HIV positive individuals* ( O'Cleirigh. 2007). *The present study also contradicts with the suggestion made by Vujanovic, (2011), that distress tolerance may be specifically related to motives for alcohol use and cannabis use.* Based on the findings of this study, the third hypothesis was rejected.

The fourth finding from this study showed that abortion stigma, behaviour pattern and distress tolerance jointly did not have a significant effect on substance use amongst adolescents. Since this study is a novel one, further studies should be conducted to ascertain the interaction between these variables.

## Conclusion

This study adopted a cross sectional survey design to investigate the influence of abortion stigma, behaviour pattern and distress tolerance on substance use amongst adolescents. Two

hundred and seventeen (217) adolescents responded adequately to the questionnaires administered which were selected using purposive sampling technique from three distinctive secondary schools in uyo, Akwa Ibom state. 2x2x2 analysis of variance (ANOVA) was used to test for possible effect of independent variables on the dependent variable. The first hypothesis which stated that adolescents with high abortion stigma will exhibit high substance use than their counterparts low on abortion stigma was accepted. Result also supported the second hypothesis which stated that adolescents with Type B behaviour pattern will exhibit high substance use than their type A counterpart. Finally, the third hypothesis which stated that adolescents with low distress tolerance will exhibit more substance use than their counterparts with high distress tolerance was rejected. Findings were in line with existing literature. Since substance use amongst adolescents cannot be overemphasized in this period of teenage drug use, it is crucial to understand certain factors and variables that contribute to substance use amongst adolescents. Variables such as abortion stigma and behaviour pattern as a result of the findings from this research have been proven to have significant influence on substance use amongst adolescents.

### **Implications and Recommendations**

Findings of this study have the following implications. First, the present study must be regarded as a potential therapy. This is because with the findings of this study, adolescents and parents and other members of the community have learnt the negative impact of Abortion Stigma and Behavioural Pattern on Adolescents Substance Use.

Erick Hamburger in 1959 made an assertion that adolescence period is a unique stage in the developmental process of man. Adolescents are consequently to be helped due to the peculiarities of this stage of development in their lives. This is in order so that they will not entangle with behaviours that will pose threat to their wellbeing. Counsellors are expected to show serious concerns about inappropriate behaviours that originates from the adolescents and ensure that they exhibit acceptable behaviour through behavior-modification techniques. Stakeholders should create media awareness, organize seminars, engage in community talks and write as well as publish articles on the dangers of abortion stigma and behavioural patterns as they lead to substance use/ abuse by adolescents.

This study proves that abortion stigma, behavioural pattern and distress tolerance predict substance use amongst adolescents. From the findings of this study, adolescents with high abortion stigma are vulnerable to substance use (likely to abuse drugs). Those with type A behaviour pattern are shown to be less vulnerable to substance use (less likely to abuse drugs). Those with low distress tolerance were not reported to be vulnerable to the use of substance(s). \*This showed that lower abortion stigma and type A behavior pattern (curbing abortion stigma and deviance behavioural pattern) is crucial in curtailing the high incidence of substance use amongst adolescents.

People should turn away from stigmatizing adolescents who engage in abortion, as findings of the present study has explored that it is dangerous, bad and can exacerbate to substance use and abuse than the original assumed intention mostly held by members of the public. Thus, abortion stigma prompts adolescence to engage in substance use as a way out of the depression that maybe caused by the stigma people attached to them. People should be educated on the perils (dangers) of substance use as its social cost, health problems, financial challenges are at high extreme.

Even though abortion stigma leads to substance use, it is also linked to depression and other psychological problems in the long-run. Government agencies and community heads should place laws to prohibit abortion stigma as it leads to substance abuse as well as many other psychological problems, which was in line with earlier stated literature that women may experience abortion as a significant loss involving grief and/or traumatic stress, guilt, anger, anxiety, depression, and other psychological symptoms that can precipitate substance abuse, (Coleman, 2005).

### **Limitations of the Study**

This study had various challenges. First, data was collected from only three schools in Akwa Ibom State. The participants had difficulty in understanding the items in the questionnaire which may influence their response. Also, the participants were bored or tired when filling the questionnaires because of its lengthy nature. Scarcity of prior studies on behaviour pattern was a

big limitation that was encountered in the course of the study. This had an effect on the empirical review section as there were limited researches that could facilitate accepting or rejecting the third hypothesis.

### Suggestion for Further Study

Caution must be taken in the generalization of this result since a population of two hundred and seventeen (217) appears too small for a wider generalization. Subsequent studies should ensure the use of a higher sample size in a somewhat national survey to take care of this weakness.

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