

Relationship between Substance Use and Spousal Violence Victimization in Imo State, South-East Nigeria

¹Iwuagwu, Tochi E., ¹Ofuebe, Justina I., ²Okeke, Kalu M., ^{1*}Obayi, Benedeth A., ¹Ene, Osmond C., ¹Ifemegbulem, VivianMary A.,¹& Ezedum Chuks E.

¹Department of Human Kinetics and Health Education, University of Nigeria, Nsukka

²Department of Health Education, Alvan Ikoku Federal College of Education, Owerri.

*Corresponding author: benedeth.obayi@unn.edu.ng

Abstract

The study examined the relationship between substance use and spousal violence (SV) victimization in Imo State, South East Nigeria. Specifically, the study determined: proportion of spouses victimized in the past 12 months, frequency of use of substances among spouses in the 12 past months and relationship between substance use and spousal violence victimization among spouses. Two research questions and one null hypothesis guided the study. The study adopted triangulation mixed method design. The population consisted of 1,649,032 spouses in the study area. The sample size was 1,488 (1,440 for quantitative data and 48 for qualitative data) spouses drawn using multi-stage sampling techniques. Questionnaire and focus group discussion Guide (FGD) were used for data collection. Frequency, percentage, point biserial correlation (r_{pb}) and binary logistic regression were used for data analyses. Findings reveal that 41.1 percent of spouses were victimized in the past 12 months. Data were collected between February and May, 2022. Other findings include a strong relationship between alcohol use and SV ($r_{pb} = .611$), and a positive moderate relationship between illicit drugs use and SV ($r_{pb} = .597$). Substance use (OR = .041, 95% CI [.030-.056], $p < .05$) was significantly associated with SV victimization. Findings from the male and female qualitative exploration revealed that the participants collectively expressed that alcohol and illicit drug use contribute greatly to their spousal violence victimization. However, SV interventions should increase focus on transforming attitudes that condone SV as normal, and enact laws that could help reduce harmful use of alcohol and illicit drugs that predisposes spouses to violence.

Keywords: Substance, Use, Victimization, Spouse, Relationship, Violence

Introduction

Spousal violence (SV) is a pervasive social and public health problem affecting individuals globally irrespective of their demographic characteristics. Spousal violence occurs as a result of escalating conflicts. It remains a public health and human rights issue, disproportionately affecting women (Benebo et al., 2018; Gilchrist et al., 2022), and about 35 per cent of

women worldwide have experienced either physical and or sexual spousal violence (World Health Organization [WHO], 2013). Although, studies report that the preponderance of SV is perpetrated by men, a growing number of researchers and political activists claim that women and men are equally victimized (Archer, 2000). Traditional perspectives on SV assumed that perpetrators were men trying to assert

dominance. Typology researchers refuted this perspective, stating that although some violence is male-on-female, the majority are gender mutual, and may have more to do with conflict resolution skills than with asserting control (Carlson et al., 2015). Approximately a third of women (37.3%) and men (30.9%) have experienced sexual violence, physical violence, or stalking by a spouse in their lifetime (Smith et al., 2017).

Spousal violence appears to be common in Nigeria. There is gross under reporting and non-documentation of spousal violence victimization due to some underlying and cultural factors in Nigeria (Afrolnews, 2007; Oyediran & Isiugo-Abanihe, 2005). Spousal violence involves any behaviour by a spouse causing physical, sexual, stalking, sexual coercion, psychological abuse, financial abuse, and controlling behaviours by a current or former intimate partner, whether or not the partner is a spouse (Centers for Disease Control and Prevention [CDC], 2017; WHO, 2013). Physical violence includes: hitting, slapping, punching, choking, pushing, burning, injuries; sexual violence includes: any act, attempt to obtain a sexual act, or advances or otherwise directed against a person's sexuality using coercion by any person regardless of their relationship to the victim; and emotional violence includes: humiliation, economic deprivation, intimidation, stalking, extreme controlling behaviour, isolation, verbal abuse, and threats (WHO, 2013). According to Beck et al. (2022), physical and sexual victimization are highly prevalent among spouses who use drugs, particularly Methamphetamine. However, this study focused on victims of spousal violence, and the victims are

usually married persons or spouses. However, spouses are partners or men and women who live together, and share both good and bad moments within a legal union in Imo State.

Spousal violence can be predicated by demographic (gender, age, length of marriage, residence, education etc), situational, developmental, and psychosocial factors. Fewer studies have looked at more specific situational factors, such as substance (alcohol & drug) use among others.

Substance (alcohol & illicit drugs) use has been implicated to be associated with SV victimization and perpetration. Substance use can increase both the frequency and severity of SV (Cafferky et al., 2018; Leonard & Quigley, 2017). Alcohol and illicit drugs use are among the most frequent situational predictors of interpersonal violence victimization (CDC, 2017; Ganson et al., 2022; Hauger et al., 2021). Researchers have found a strong, positive link between alcohol consumption and level of SV victimization/aggression (Rivas-Rivero & Bonilla-Algovia, 2021). Intimate partners (spouses) who are violent may use alcohol, medications, or illicit drugs to subdue and control their partners (Warshaw et al., 2014). Drug use has been shown to interact in complex ways with the occurrence and prevalence of SV victimization and perpetration (Cafferky et al., 2018; Smith et al., 2012), with indications that illicit drug use is a significantly stronger correlate with SV victimization, compared to alcohol use. Cafferky et al. (2018) reported no significant gender differences based on each drug type for SV perpetration or victimization, for both alcohol and drug use. Also, SV victimization impacts on women's substance use, mental,

physical, and reproductive health, and quality of life (Loxton et al., 2017).

International research is mixed up with some indications of no relationship between participant report of illicit drug use and experience of SV. The relationship between substance use and SV victimization is contentious, and yet to be fully deciphered (Gilchrist et al., 2022; Radcliffe et al., 2019). Though quantitative studies confirm substance use as a risk factor for SV victimization and perpetration, how and why it is so, is not well understood. Qualitative studies can offer insight into the context and motives that culminate to produce the statistical correlations between substance use and SV victimization. There remain gaps in the knowledge base on relationship between substance use and SV victimization in the study area. In Imo State Nigeria, SV is still viewed by many people as disconnected events, taking place in the private sphere of relationship, conflict, and beyond the realm of policy-makers and health-care providers. It is underreported by its victims for fear of reactions from partners or family members, and is handled with levity and triviality. However, SV victimization relationship with substance use has not been examined among spouses (men and women) in Imo State adopting mixed method triangulation. To fill this gap in the knowledge base, this study examined the relationship between substance use and SV victimization in Imo State, South East, Nigeria.

Understanding the impact of substance use in SV would aid in the development of policy and health interventions at both the individual and societal level. This study finding would provide valuable information for health care and public health professionals to

implement effective substance use and SV prevention and intervention strategies. Spouses would find the results useful in making informed decision on matters of substance use that affect their healthy relationships with their partners and neighbours. The results would feed into and inform WHO's global campaign on violence prevention, especially those resulting from substance use influence.

Objectives of the Study

The purpose of the study examined the relationship between substance use and spousal violence victimization in Imo State, South East Nigeria. Specifically, the study determined:

1. proportion of spouses victimized in the past 12 months.
2. frequency of use of substances among spouses in the past 12 months.
3. relationship between substance use and spousal violence victimization among spouses.

Research Questions

Two research questions guided the study.

1. What is the proportion of spouses victimized in the past 12 months?
2. What is the frequency of use of substances among spouses in the past 12 months?
3. What is the relationship between substance use and spousal violence victimization among spouses?

Hypothesis

Substance use is not significantly associated with spousal violence victimization among spouses in Imo State, South East Nigeria ($p < .05$).

Methodology

Design of the Study: The study adopted triangulation mixed method design. This

involved collection of both qualitative and quantitative data concurrently (Creswell, 2009).

Area of the Study: The study was conducted in the three Senatorial Districts that make up Imo State. In the area, SV is underreported by its victims for fear of reactions from partners or family members, and is handled with levity and triviality.

Population for the Study: The study population comprised spouses in the study area. Spouses are men and women who are legally married. The projected population of married men and women is 1,649,032; comprising 830, 261 men and 818,771 women; which is 31.6 percent of the entire population in Imo State (National Population Commission, 2015). Only persons who were married at the time of the study were included in the study. Divorced, separated, cohabitating, and single parents were not involved in the study.

Sample for the Study: Sample size was 1,488 respondents, comprising 1,440 spouses selected for collecting quantitative data and 48 focus groups discussants selected for collecting qualitative data. The sample size was determined using Cohen et al. (2011) Standardized Table for Random Samples. Random sampling technique was used to draw four (2 urban & 2 rural) local government areas (LGAs) from each of the three Senatorial District, making it a total of 12 LGAs (6 urban & 6 rural). Two communities each out of the 110 communities that made up the 12 drawn LGAs were randomly selected to give a total of 24 communities. Two villages from each of the 24 communities were randomly selected to give a total of 48 villages. Thereafter, 30 spouses (15 men & 15 women) were drawn from each of the 48 villages, which gave a total

of 1,440 respondents. A total of 48 married men and women (married for over 5 years) was purposively selected for FGD.

Instrument for Data Collection: Questionnaire and FGD guide were used for data collection. The instruments were developed through literature review and the specific objectives of the study. The questionnaire had a 4-point scale of, "Rarely (RA)", "Sometimes (ST)", "Frequently (FR)", and "Never (NE)". The questionnaire was validated by five public health education experts. Reliability indices of .913 and .774 were obtained for SV and substance use scales respectively using Cronbach's alpha. Note books as well as a recording gadget were used to record the discussions.

Data Collection Technique: Data collection was conducted between February and May, 2022. A total number of 1,440 copies of the questionnaire were administered to the spouses. Out of 1,440 copies administered, 1,433 copies were retrieved, which gave a return rate of 99.5 per cent. Only 1,427 copies duly filled out were used for analyses.

The qualitative data were collected concurrently with the quantitative data using a semi-structured SVFGDG. Six FGDs, two per senatorial district were conducted with eight married men and women in a group, selected from each of the rural and urban LGAs in the area of the study. There were 48 discussants in six groups. Each FGD lasted one hour. The FGDs were conducted in both English and Igbo languages. The FGD sessions were moderated and recorded by the researchers.

Data Analysis Techniques: These include Frequency, percentage, and point biserial correlation (r_{pb}). Binary logistic regression was also used to assess the association between substance

use and spousal violence victimization at .05 level of significance. Response options of 'rarely (1-2times)', 'sometimes (3-5times)', 'frequently (6 times +)' were categorized as Yes (experienced SV) response while 'never (0)' was regarded as NO response (not experienced) in accordance with prior literature (Dunn et al., 2021; Swiatlo et al., 2020). For the purpose of logistic regression, responses for alcohol use and illicit drugs use were combined and dichotomized as substance use. Using WHO (2013) global average of 26.4 per cent for prevalence estimates of violence against women, a

prevalence or proportion of 26 per cent and above was considered a significant widespread of SV experience or victimization. Using Jackson (2009) estimates for weak, moderate, and strong correlation coefficients, $\pm .00 - .29$ was interpreted as none (.00) to weak relationship, $\pm .30 - .59$ was interpreted as moderate relationship, and $\pm .60 - 1.00$ was interpreted as strong relationship.

FGD data were coded and summarized thematically.

Results

Table 1: Proportion of Spouses Victimized in the past 12 months ($n = 1,427$)

S/N	Spousal Violence Indicators	f (%)
Physical Violence		
1.	Slapped, kicked, or hit with a fist or something else	601 (42.1)
2.	Choked a partner	495 (34.7)
3.	Beaten up a partner	562 (39.4)
4.	Threatened you with weapons	390 (27.3)
Cluster Value		512 (35.9)
Sexual Violence		
5.	Insisted on sex when the other did not want it without physical force	841 (58.9)
6.	Used threats to make you have sex	468 (32.8)
7.	Used force (such as hitting, holding down, or using a weapon) to make you have sex	450 (31.5)
Cluster Value		586 (41.1)
Emotional Violence		
8.	Shouted or yelled	956 (67.0)
9.	Ignored, shut out, or given silent treatment	986 (69.1)
10.	Called hurtful names, sworn at, or insulted	747 (52.3)
11.	Criticized or put down in front of others	640 (44.8)
12.	Limited your contact with others such as family or friends, or controlled a partner's behaviour or activities in any way	727 (50.9)
13.	Acted jealous or suspicious of your other relationships	868 (60.8)
14.	Threatened to hit, hurt, or throw something at your presence	562 (39.4)
15.	Thrown, smashed, hit or kicked something in your presence	547 (38.3)
16.	Threatened to hurt you if you decide to quit the relationship	507 (35.5)
17.	Threatened to hurt self if you quit the relationship	484 (33.9)
18.	Prevents partner from engaging in spiritual or religious practices	531 (37.2)
19.	Prevented you from resource acquisition	488 (34.2)
20.	Deprived you of basic economic needs	516 (36.2)
21.	Neglected and showed you no form of love	669 (46.9)
Cluster Value		620 (46.2)
Overall Value		573 (41.1)

F = Frequency; % = Percent.

Table 1 shows that overall, 41.1 per cent of spouses were victimized in the past 12 months. The Table also shows that 46.2 percent of spouses reported having experienced emotional violence; 41.1 percent reported sexual violence; and 35.9 percent reported physical violence. Also, the table shows that emotional violence was reported more than sexual and physical forms of violence.

The FGDs reveal prevalence of such physical violence as slapping, threatening with weapons (such as knife

and stick), beatings; sexual violence; and emotional violence (such as name calling, talking back, restrictions from willful activities, too much monitoring of each other's movements, quarrels, nagging among others) in Imo State, Nigeria. For instance, a participant said "I have experienced high rates of arguments, calling names, beatings, fighting due to alcoholic intoxication and other hard drugs, forceful sexual acts, and restriction of movements".

Table 2: Responses on Frequency of Use of Substances among Spouses (n=1,427)

S/N	Frequency of Substance use	f (%)
1.	How often have you experience conflict with your partner related to drinking of alcohol in the past 12 months?	
	Most days	871 (61.0)
	Weekly	79 (5.5)
	Once a month	169 (11.8)
	Less than once a month	111 (7.8)
	Never	197 (13.8)
2.	How often have you experience conflict with your partner related to your use of illicit drugs (cocaine, heroine, marijuana, cannabis, smoking cigarette, sniffing or use of tobacco etc in the past 12 months?	
	Most days	1037 (72.7)
	Weekly	70 (4.9)
	Once a month	63 (4.4)
	Less than once a month	39 (2.7)
	Never	218 (15.3)

F = Frequency; % = Percent.

Table 2 shows that a higher percentage of spouses reported using alcohol (61.0%) and illicit drugs (72.7%) most days in the past 12 months.

Table 3: Point Biserial Correlation between Substance Use and Spousal Violence among Spouses (n=1,427)

S/N	Variables	Mean	SD	r _{pb}
1	Alcohol use	2.08	1.509	.611
2	Illicit drugs use	1.83	1.493	.597
3	Spousal violence	9.13	7.290	

Key for interpretation: ±.00 - .29 = None (.00) to Weak Relationship; ±.30 - .59 = Moderate Relationship; ±.60 - 1.00 = Strong Relationship

Table 3 shows that there was a positive strong relationship ($r_{pb} = .611$) between alcohol use and spousal violence victimization, while there was a positive moderate relationship ($r_{pb} = .597$) between illicit drugs use and spousal violence victimization. This implies that increase in the frequency of substance (alcohol & illicit drugs) use leads to

increase in spousal violence victimization.

The FGDs reveal that the participants collectively expressed that alcohol and illicit drug use contribute greatly to their spousal violence perpetration and victimization. A participant said, "Substance use influences most men to initiate beatings, arguments, quarrels, infidelity, and all sorts of marital issues".

Table 4: Binary Logistic Regression of Substance Use and Spousal Violence Victimization

Factors	B	S.E	Wald	Df	p-value	Exp(B)	95% C.I. for Exp(B)	
							Lower	Upper
Substance Use								
No								
Yes	-3.201	.164	379.944	1	.000*	.041	.030	.056
Constant	1.72	.144	143.422	1	.000	5.596		

Nagelkerke R² = .430; CI= Confidence Interval; Odd Ratio (OR) = Exp(B); Reference Group: No

Table 4 shows that the Nagelkerke R² of .430 indicates a moderate relationship (variation) of 43.0 per cent between substance use and the dependent variable (spousal violence). The finding shows that substance use (harmful alcohol and illicit drug use) was statistically significantly associated with spousal violence victimization among spouses. Hence, the odd rate of being victimized by a spouse was 96 per cent less likely in spouses that use substances than those that do not use substances (OR = .041, 95% CI [.030-.056], $p < .05$).

Discussion

Findings in Table 1 revealed that overall, spouses were victimized in the past 12 months. Respondents reported they experienced physical, sexual, and emotional violence. These findings were expected and therefore not surprising, because spouses are known to be involved or experience various forms of spousal violence in marital life. The findings were consistent with (Ilika et al.,

2002; Uchendu, 2007) who found that the prevalence of SV has been reported to vary between different regions and States of Nigeria, from as low as 24 per cent in South West Nigeria to as high as 79 per cent in Imo State. However, the findings were consistent with WHO (2013); and Smith et al. (2017) who reported that a third of women (37.3%) and men (30.9%) have experienced sexual violence, physical violence, or stalking by an intimate partner in their lifetime. The finding on emotional violence was consistent with Uchendu (2007) who reported that the most prevalent form of spouse abuse was emotional abuse such as calling abusive names, followed by physical and sexual abuse. Experience of physical or sexual violence or both tends to be accompanied by highly controlling behaviours by spouses, which is an aspect of emotional or psychological violence.

Findings from the male and female FGDs revealed that there was absolute

unanimity in the responses of the participants that physical violence, such as slapping, threatening with weapons (knife and stick), beatings; sexual violence; and emotional violence (name calling, talking back), restrictions from willful activities, too much monitoring of each other's movements, quarrels, nagging among others are serious and highly prevalent in Imo State, Nigeria. There is virtually no family where the husband never beat or reprimanded or scolded the wife and vice versa. The findings from the FGDs were partly in agreement with the quantitative findings, and were expected to be so. This is because some persons appear to be bias or confidential in giving written information other than verbal information. The findings could be attributed to the fact that SV is rooted in the everyday tensions and conflicts of family life, and it is used by one partner to gain or maintain power and control over another partner in intimate relationship. Most cases in health care centres are psychological trauma and injuries resulting from physical or sexual abuse.

The finding in Table 2 revealed that a higher percentage of spouses reported using alcohol and illicit drugs most days in the past 12 months. This is not surprising as most spouses are often seen using substances in various setting and time. In Table 3, there was a positive strong relationship between alcohol use and SV victimization, while there was a positive moderate relationship between illicit drug use and SV victimization. This implies that increase in the frequency of substance use (alcohol & illicit drugs) leads to increase in spousal violence victimization. Also, the finding in Table 4 showed that substance use (harmful alcohol and illicit drug use)

was statistically significantly associated with SV victimization among spouses. Hence, the odd rate of being victimized by an intimate partner was 96 per cent less likely in spouses that use substances than those that do not use substances. These findings were expected and therefore not surprising, as one would expect substance use to provide ready fodder for various form of violence against spouses. The findings were consistent with Rivas-Rivero and Bonilla-Algovia (2021) who found a strong, positive link between alcohol consumption and level of aggression. In consonance to the finding, alcohol and other illicit drug use is associated with higher rates of IPV victimization (Cafferky et al., 2018; Coomber et al., 2021; Perez et al., 2022; Uchendu, 2007). Victimized men have greater odds of substance use in Tanzania (Reyes et al., 2022). The finding was not consistent with Mckinney *et al.* (2010) who found no significant association between alcohol involvement and severe bidirectional partner violence. In contrast to this finding, a meta-analysis found that there were no significant gender differences based on each drug type for IPV perpetration or victimization, for both alcohol and drug use (Cafferky et al., 2018). Individuals who use substances are more likely to engage in high-risk sexual behaviours (Ip et al., 2016).

Findings from the male and female FGDs revealed that the participants collectively expressed that alcohol and illicit drug use contributes greatly to their IPV perpetration and victimization. The findings from the FGDs were in agreement with the quantitative findings, and were expected to be so. The fact that some married men and women use substances (alcohol and hard drugs)

does not necessarily mean that substance use is the cause of SV. One fact is that involvement in illicit drugs use and harmful alcohol consumption can increase the risks of being both a victim and or perpetrator of violence, while experiencing violence can increase the risks of initiating illicit drug use and harmful alcohol use. Excessive drinking may also increase SV by providing ready fodder for arguments between spouses. Alcohol consumption on its own, contributes to SV through fostering conflicts, reducing inhibitions, and providing a social environment for negative reward. Screening for substance abuse may help to identify individuals at high risk of SV. These findings may be due to the nature of the sample, or it may simply be that situational substance use increases the risk for experiencing SV in both men and women. The results suggest that eliminating SV requires a comprehensive approach.

The findings of this study have important implications for health care and public health professionals. Health care professionals should be aware of the relationship between substance use and SV victimization. Specifically, given the ease of access, and widespread use of licit substances, it may be particularly important that health care professionals screen for SV involvement. Public health awareness and prevention programmes would be used to mitigate the use of substances and SV, and emphasize the potential detrimental interpersonal effects of substance use. The findings have implication for making informed decision and policies on matters of substance use that affect relationship with people or partners.

There are some limitations that should be noted of this study. First,

measures assessed using participant reports about their experiences of violence are thus subjected to recall bias, social disability bias, and reporting bias. Second, we dichotomized the SV victimization items in accordance with prior literature; this may have reduced the detail of information. Finally, there is the potential for unmeasured confounders that may influence the relationships between the key variables under study.

Conclusion

The findings of this study showed that spouses were victimized physically, sexually, and emotionally in the past 12 months in Imo State, Nigeria. Substance (alcohol & illicit drug) use greatly contributes to spousal violence, despite that some of the spouses reported never used substances in the past 12 months. The qualitative exploration revealed that alcohol and illicit drug use contribute greatly to spousal violence perpetration and victimization.

Recommendations

1. Spousal violence interventions should increase focus on transforming attitudes that condone violence as normal, and enact laws that could help reduce harmful use of alcohol and illicit drugs that predisposes married persons to violence.
2. Government at all levels should strengthen the implementation of legal sanctions and policy frameworks to mitigate high rate of bidirectional spousal violence and as well address its structural and underlying predictors (such as, substance use among others) that disrupt peaceful marriages.
3. There is the need for continued research, health and public care

prevention and intervention to reduce the use of substances and occurrence of spousal violence.

References

- AfrolNews. (2007). *Half of Nigeria's women experiences domestic violence*. <http://www.afro.com/articles/16471>
- Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analytic review. *Psychological Bulletin*, 126, 651-680.
- Beck, R. C., Sziapinski, J., Pacheco, N., Laghaei, S. S., Isard, R., Oudshoorn, A., & Marshall, C. A. (2022). Violence and victimization in the lives of persons experiencing homelessness who use metamphetamine: A scoping review. *Health and Social Care*, 30(5), 1619-1636. <https://doi.org/10.1111/hsc.13716>
- Benebo, F. O., Schumann, B., & Vaezggbasemi, M. (2018). Intimate partner violence against women in Nigeria: a multilevel study investigating the effect of women's status and community norms. *BMC Women's Health*, 18(1), 136.
- Cafferky, B. M., Mendez, M., Anderson, J. R., & Stith, S. M. (2018). Substance use and intimate partner violence: A meta-analytic review. *Psychology of Violence*, 8(1), 110-131. <https://doi.org/10.1037/vio0000074>
- Carlson, R. G., Fripp, J., Cook, C., & Kelchner, V. (2015). *Examining intimate partner violence, stress and technology use among young adults*. <https://tpcjournal.nbcc.org>
- Centers for Disease Control and Prevention (CDC). (2017). *Intimate partner violence: definitions*. <https://www.cdc.gov/violenceprevention/intimatepartnerviolence/definitions.html>
- Cohen, L., Manion, L., & Morrison, K. (Eds.). (2011). *Research methods in education* (7th ed.). New York: Routledge Taylor & Francis Group.
- Coomber, K., Mayshak, R., Liknaitzky, P., Curtis, A., Walker, A., Hyder, S., & Miller, P. (2021). The role of illicit drug use in family and domestic violence in Australia. *Journal of Interpersonal Violence*, 36(15-16), NP8247-NP8267. <https://doi.org/10.1177/0886260519843288>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative and mixed methods approaches*. <https://www.ceil-conicet.gov.ar/wp-content/uploads/2015/10/>
- Dunn, H. K., Pearlman, D. N., Montgomery, M. C., & Orchowski, L. M. (2021). Predictors of sexual intimate partner violence perpetration among men: A prospective analysis. *Journal of Interpersonal Violence*, 886260521989735. Advance online publication. <https://doi.org/10.1177/0886260521989735> PubMed Google Scholar
- Ganson K. T., Jackson, D. B., & Nagata J. M. (2022). Performance-enhancing substance use and intimate partner violence: A perspective cohort study. *Journal of Interpersonal Violence*, 0(0), 1-22. <https://doi.org/10.1177/08862605211073097>
- Gilchrist, E., Johnson, A., Thomson, K., Stephens-Lewis, D., Henderson, J., Gadd, D., Radcliffe, P., Halliwell, G., & Gilchrist, G. (2022). Substance use and intimate partner abuse: A descriptive model of the pathways between substance use and intimate partner abuse perpetration for men. *Journal of Family Violence*. <https://doi.org/10.1007/s10896-022-00395-5>
- Hauger, L. E., Havnes, I. A., Jørstad, M. L., & Bjørnebekk, A. (2021). Anabolic androgenic steroids, antisocial personality traits, aggression and violence. *Drug and Alcohol Dependence*, 221, 108604. <https://doi.org/10.1016/j.drugalcdep.2021.108604> PubMed Google Scholar
- Ilika, A. L., Okonkwo, I. P., & Adiogu, P. (2002). Intimate partner violence among women of childbearing age in a primary health care centre in Nigeria. *African Journal of Reproductive Health*, 6(3), 53-58.
- Ip, E. J., Yadao, M. A., Shah, B. M., & Lau, B. (2016). Infectious disease, injection

- practices, and risky sexual behavior among anabolic steroid users. *AIDS Care-Psychological and Socio-Medical Aspects of AIDS/HIV*, 28(3), 294-299. <https://doi.org/10.1080/09540121.2015.1090539> PubMed Google Scholar
- Jackson, S. L. (Ed.). (2009). *Research methods and statistics: A critical thinking approach* (3rd ed.). Belmont, CA, USA: Wadsworth, Cengage Learning. ISBN-13:978-0-495-51001-7, pp.142.
- Leonard, K. E., & Quigley, B. M. (2017). Thirty years of research show alcohol to be a cause of intimate partner violence: Future research needs to identify who to treat and how to treat them: Alcohol and intimate partner violence. *Drug and Alcohol Review*, 36(1), 7-9. <https://doi.org/10.1111/dar.12434>
- Loxton, D., Dolja-Gore, X., Anderson, A. E., & Townsend, N. (2017). Intimate partner violence adversely impacts health over 16 years and across generations: A longitudinal cohort study. *PLoS ONE*, 12(6), E0178138.
- Mckinney, C. M., Caetano, R., Rodriguez, L. A., & Okoro, N. (2010). Does alcohol involvement increase the severity of intimate partner violence? *Alcoholism Clinical and Experimental Research*, 34(4), 655-658.
- National Population Commission. (2015). *National census*. Federal Republic of Nigeria.
- Oyediran, K. A., & Isiugo-Abanihe, U. C. (2005). Perceptions of Nigerian women on domestic violence: Evidence from 2003 Nigerian demographic and health survey. *African Journal of Reproductive Health*, 9(2), 38-53. <https://doi.org/10.2307/3583461>
- Perez, Y. M., Gama, A., Pedro, A. R., de Carvalho, M. J. L., Guerreiro, A. E., Duarte, V., Quintas, J., Agular, P., keygnaert, I., & Dias, S. (2022). The links of stress, substance use and socio-demographic factors with domestic violence during the CoVID-19 in Portugal. *Journal of Public Health*. <https://doi.org/10.1093/pubmed/fdac024> PubMed
- Radcliffe, P., Gadd, D., Henderson, J., Love, B., Stephens-Lewis, D., Johnson, A., & Gilchrist, G. (2019). What role does substance use play in intimate partner violence? A narrative analysis of in-depth interviews with men in substance use treatment and their current or former female partner. *Journal of Interpersonal Violence*, 88626051987925. <https://doi.org/10.1177/0886260519879259>
- Reyes, H. L. M., Maman, S., Kajula, L. J., & Mulawa, M. I. (2022). Intimate partner violence perpetration and sexual risk behaviour: Identifying shared determinants among young men in Tanzania. *Global Public Health*. <https://doi.org/10.1080/17441692.2022.2032257>
- Rivas-Rivero, E., & Bonilla-Algovia, E. (2021). Adverse childhood events and substance misuse in men who perpetrated intimate partner violence. *International Journal of Offender Therapy and Comparative Criminology*, 66(8). <https://doi.org/10.1177/0306624X211013519>
- Smith, P. H., Homish, G. G., Leonard, K. E., & Cornelius, J. R. (2012). Intimate partner violence and specific substance use disorders: Findings from the national epidemiologic survey on alcohol and related conditions. *Psychology of Addictive Behaviors*, 26, 236-245. <https://doi.org/10.1037/a0024855>
- Smith, S. G., Chen, J., & Basile, K. C., et al. (2017). *The National Partner and Sexual Violence Survey (NISVS): 2010-2012 State report*, Atlanta. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Swiatlo, A. D., Kahn, N. F., & Halpern, C. T. (2020). Intimate partner violence perpetration and victimization among young adult sexual minorities. *Perspectives on Sexual and Reproductive Health*, 52(2), 97-105. <https://doi.org/10.1363/psrh.12138> PubMed Google Scholar
- Uchendu, N. A. (2007). *Partner abuse among couples of child bearing age in Ahiazu Mbaise*

- LGA of Imo State* (Master's thesis). University of Nigeria, Nsukka.
- Warshaw, C., Lyon, E., Bland, P. J., Phillips, H., & Hooper, M. C. (2104). *Mental health and substance use coercion surveys*. Chicago national Center on Domestic Violence, Trauma & Mental Health and the National Domestic Violence Hotline.
- World Health Organization. (2013). Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence. <https://apps.who.int/iris/bitstream/10665/>