The Social Context of Alcohol Abuse in Pregnant Women in South-South Nigeria

Iniobong Monday Eduok

Department of Criminology and Security Studies National Open University of Nigeria, Jabi, Abuja. <u>ieduok@noun.edu.ng</u> +2348027391394

Abstract

This study investigated the social context of alcohol abuse in pregnant women in South-South Nigeria. Alcohol use during pregnancy has been connected with numerous births and developmental disorders. This study set out to ascertain the different forms of alcohol consumption among pregnant women and substance abuse. This study adopted the survey research design. A simple random sampling technique was used to select 150 pregnant women in South-South Nigeria. One instrument was used for data collection: The alcohol abuse in Pregnant Women Questionnaire (r=0.76). Data collected were analysed using percentage scores, mean, and standard deviation. Findings of the study revealed a weighted mean of 2.67 which is greater than the threshold set at 2.50. Based on the findings of the survey, it is recommended that pregnant women should do away with alcohol. Doctors should expose pregnant women to the effects of abusing alcohol consumption as it causes a risk factor for several harmful pregnancy outcomes. The state government should organise health talks in workshops and symposiums for pregnant women on why they should not abuse alcohol consumption when they are pregnant. Furthermore, pregnant women should go for periodic medical checkups and antenatal to guarantee their safety and that of the unborn babies.

Keywords: Alcohol abuse, antenatal, foetus, pregnant women, and South-South

Introduction

Alcohol consumption is prevalent in Southern Nigeria where it is used in social and religious gatherings. It appears there is no determined attempt in the Nigerian health system to dishearten pregnant women from drinking alcohol and shield the foetus in the womb. This study evaluated alcohol drinking and acquaintance of the detrimental outcome of alcohol use among pregnant women going to the ante-natal clinic. Alcohol intake is one of the adaptable risk factors for poor pregnancy consequences in Nigeria. The chronic physical, biological, and cognitive hazards posed by alcohol intake to pregnant women and their unborn babies have received public health attention in recent times (Krulewitch, 2005). In spite of global exertions at lessening



its use, the occurrence of alcohol intake among pregnant women is higher than generally grasped. the discoveries of this study would create awareness about the situation in a representative population, and assist in detecting the necessity for remedial measures.

Literature Review

In Nigeria, hefty consumption was found in 38% of women presently drinking (Martinez, Roislein, Naidoo & Clausen, 2011). Substance misuse has become a major societal problem in Nigeria. Substances are drugs or anything that can modify cognition and moods (National Institute of Drug Abuse, 2018). Substance misuse is the usage of legal and illegal drugs for a purpose that is not consistent with medical prescription. World Health Organisation (2014) defined substance misuse as the dangerous use of psychoactive drugs. Ani (2016) revealed that 15,000 people die yearly as a result of misuse of substances while 88,000 lose their lives due to injuries related to alcohol intake. These substances could be legal (alcohol, tobacco, and caffeine) or illegal (opioids, cocaine, and marijuana). Continuous misuse of drugs causes addiction in the user and this often leads to health complications. In a nutshell, people misuse drugs because they derive an intensely pleasurable feeling from them. Substance misuse can lead to death, and damage of the brain system and liver (Moyo, 2017). The excessive usage of substances can lead to addictive behaviour which can result in depression and eventually, such an individual might develop a poor medical condition.

Alcohol belongs to the category of psychoactive drugs that depress and at the same time stimulate the functions of the central nervous system and the issue of alcohol use and abuse among youths in Nigeria has been a great concern to all and sundry. The abuse of alcohol seems to make it addictive and the partakers are referred to as all who lie. It involves drinking to an extent that exceeds the norms of society and adversely affects the drinker's health, relationship with others, and economic functioning. In other words, the victim finds himself drinking when he intends not to drink or drinking more than planned. World Health Organisation believes that alcohol although legal in many countries can be an even bigger threat than cannabis, cocaine, and heroin.

Alcohol consumption is one of the modifiable risk factors for poor pregnancy outcomes in Nigeria (Ordinioha & Brisibe, 2015). The chronic physical, biological and cognitive hazards posed by alcohol consumption to pregnant women and their unborn babies have received public health attention in recent times (Krulewitch, 2005). Despite global efforts at minimizing its use, the prevalence of alcohol consumption among this cohort (pregnant women), across cultures is higher than commonly realized (Mellingen, Torsheim &Thuen, 2013). It is a psychoactive drug that can cause acute as well as chronic changes and has been largely used by many populations worldwide, although its effects, in particular cause dependence.

Consumption of alcohol during pregnancy is a worrying public health problem because it is a substance known to cause teratogenic effects, bringing harmful effects to the health of both the mother and the developing foetus. Alcohol can rapidly cross the placenta, immediately affecting the foetus within two hours. Alcohol exposure during the antenatal period is recognised as a risk factor for several harmful pregnancy outcomes, including spontaneous abortion, stillbirth, preterm birth, reduced fetal development and low birth weight, cognitive, behavioural and neurodevelopmental deficiencies for the child over the life course, in addition to a variety of disorders known collectively as Fetal Alcohol Spectrum Disorder (FASD).

Globally, about 630,000 children are born with FASD each year, and in 2017, the prevalence of FASD was 8 per 1000 children and young people. The World Health Organization (WHO) recommends that pregnant women abstain completely from alcohol, as no amount of alcohol at this stage is considered safe, not only is it safe for pregnant women not to consume alcohol, but also for women who are planning a pregnancy. Further, despite these recommendations, alcohol consumption among women is not uncommon, and worldwide it is estimated at 10%. In sub-Saharan African countries, surveys estimate the prevalence of lifetime alcohol exposure among women to be between 2.2 and 59.28%, reaching 87%, which suggests that in this region, alcohol consumption during pregnancy is a growing problem among pregnant women.

In this region, having an unplanned pregnancy, unawareness about the risks of alcohol consumption, having partners and friends who consume alcohol, and health-related problems such as depression and unemployment are the main factors for alcohol consumption during pregnancy. In Mozambique, there is a lack of research that aims to explore the prevalence and predictors of alcohol consumption during pregnancy. Therefore, this research was undertaken to determine the prevalence and factors associated with alcohol consumption among pregnant women attending a primary health care unit in Chitima, Cahora Bassa district and Tete province.

Adebowale et al (2013) affirmed that misuse of substances can lead to family disintegration, while Awoyemi (2013) noted that substance ill-use affects the physical and psychological development of addicts. SAMHSA (2005) stated that substance misuse for women is strappingly associated with the experience of violence, sexual abuse, incest, rape, sexual assault and childhood physical abuse. Atoyebi and Atoyebi (2013) reported that girls who have experienced physical or sexual abuse are twice as likely to drink or use substances than those who are not abused. This perhaps, might be a way of coping with the pain that goes with the physical and mental torture of such experiences (Poole & Dell, 2005). The risk that goes with substance misuse outweighs its benefits. Substance misuse can lead to



compulsive use of drugs which is often referred to as drug addiction. Complications such as heart problems, personality problems and criminal tendencies can occur as a result of excessive use of substances.

Empirical data from the United States and Canada reveal that between 11% and 12% of women consume alcohol during pregnancy (Stagerstrom, Chang & Nelsen, 2011). A higher prevalence rate of 23% to 54% has been reported in Europe (Bakhireva, Wilsnack, Kristjanson, Yuvtushok, Onishenka, Werteleck, & Chambers, 2011). Between 1991 and 2005, an earlier finding has it that about 1 in 8 (12.5%) of these cohorts were found to be involved in alcohol use (Centers for Disease Control and Prevention, 2009).

Recent data from the Substance Abuse and Mental Health Services Administration (SAMHSA, 2013) reveal an upward trend as the percentage of pregnant women's admissions reporting alcohol abuse between 2000 and 2010 (with or without another drug abuse) has been confirmed to dangle between 34.8% and 46.6%. In Nigeria, heavy drinking was found in 38% of women currently drinking (Martinez, Roislein, Naidoo & Clausen, 2011). Although the aetiology of drug and alcohol abuse during pregnancy remains unclear, studies (Ducci& Goldman 2008; Morozova, Goldman, Mackay &Anholt, 2012) have revealed a significant genetic basis for alcoholism, particularly among pregnant women, with a penetrance of 50% to 60% (Wilson & Thorp, 2008). Whether or not the genetic model is supported, alcohol use, abuse and/or dependence, in our sample, is best approached from the bio-psycho-social paradigm.

This paradigm supposes that alcoholism is a problem resulting from a complex interaction of an individual's biological, psychological, cognitive (beliefs, thought, learning), and environmental (social, cultural economic, etc.) factors. While not disregarding the potency of psychopathology and cognitive approaches, our attempt at explaining the relationship between marital dissatisfaction and drinking among pregnant women places this paper in the perspectives of three learning paradigms that would direct the course of our discussion: the operant conditioning model (Skinner, 1948) and the classical conditioning (Pavlov, 1960), social learning theory (Bandura, 1961), and the psychodynamic model (Freud, 1934).

According to the psychodynamic model, women with mental health disorders, reproductive problems, and eating disorders appear more likely to develop substance abuse problems. Depending on the time, day, trimester, event, etc., most pregnant women experience intense emotional states on a continuum ranging from feelings of excitement and happiness at one end, and feelings of concern and anxiety on the other (Periera, Lousia, Lima, Legay, Santos, Santos, Thiago & Valencia, 2011).

The relevance of partner relationship, in terms of marital satisfaction, has been implicated in spouses' psychological health; notably, depression, anxiety and alcohol abuse, (Whismas & Webelacker, 2006); physical health, (Rekolt, Glazer & Newton 2001), and children's well being (Amato & Keith 1991). In essence, Bachman, Wadsworth, O'Malley, Johnstone and Schalenberg, (1997), and Temple, Fillmore, Hartka, Johnstone, Leino and Moloyoski (1991) self-reliantly confirmed, in their community surveys of smokers, drinkers and drug users, that marital dissatisfaction and change in marital and employment status do predict increased drinking among women. Corroborating the above-reported findings, Whisman, Uebelacker and Bruce (2006) examined about 1700 married men and women without alcohol disorder over twelve months and the baseline marital dissatisfaction predicted the occurrence of an alcohol disorder after controlling for lifetime alcohol disorders.

Marshal (2003) found that studies with sufficient variability in measures of alcohol consumption and sample sizes reported significant negative correlations between alcohol consumption and marital satisfaction. He also found considerable evidence that alcoholics in treatment and their spouses have lower levels of marital satisfaction than appropriate groups and that the marital interaction of alcoholics and their spouses was also indicative of poor marital functioning. Testa and Leonard's (2001) study also augments essential impetus to our preceding empirical literature in their study of the impact of marital aggression on women's psychological and marital functioning. After controlling for demographic variables, they found that women who experienced intimate partner violence during their first year of marriage reported a greater frequency of heavy drinking episodes. In consonance with the community sample studies reported above, there is clear evidence that marital distress has an adverse impact on drinking among female alcoholics in treatment. Couples who failed to complete conjoint alcoholism treatment did have lower levels of commitment to marriage (Epstein, McCrady, Miller and Steinberg, 1994). In terms of age, available literature suggests that drinking among women is most common between the ages of 26 and 34 years, while binge drinking is most common in women aged 18 - 25 years (CDC, 2009).

Another study by Meschke, Holl, and Messelt (2012) showed patterns of relationship between maternal age and prenatal alcohol consumption. In their study to investigate the potential risk factors associated with prenatal alcohol use by maternal age, using survey data derived from a sample of 9,004 pregnant women from the North Central U.S., Meschke et al reported that teens in general had a higher level of occurrence of risk factors identified with prenatal drinking compared with older women of advance maternal age (35 years or older) and as such were more likely to drink alcohol during pregnancy. This finding suggests that younger women are more likely to drink, binge



drink and face a greater risk of meeting the DSM-IV criteria for alcohol abuse than older women. Younger women's pregnancies, particularly teens, are more likely to be unintentional and recognized later, thus increasing the risk of prenatal drinking to wade off possible depressions associated with unplanned/unwanted pregnancies. This submission is based on anecdotal pieces of evidence that suggest substance use as an assumed remedy for depression.

Mellingen, Torsheim and Thuen (2013) in their exploration of changing alcohol use and relationship satisfaction in Norwegian couples found that among elderly women, the likelihood of belonging to the high and chronic alcohol use group increased with age. Similarly, an earlier study in France found evidence that women in the older generation drank more than younger women (Zins, Gueguen, Leclers & Golberg, 1991). This high drinking pattern may be explained by the high level of marital stress or strain in household management and possible changes in the pattern of kin network as a woman grows older as well as the length of time of association with a drinking partner. Other studies have also shown the joint effects of marital stress and age on maternal alcohol consumption. Our review of the literature reveals that little has been done in the area of maternal drug use and marital satisfaction; especially in the Nigerian setting. This explains why most works cited in this study do have a Western background. If this study effectively probes into possible connectivity between our variables of interest in the Nigerian culture, thus informing future research aimed at decreasing this maladaptive practice and its attendants among our population of interest, the aim of this work would have been achieved. Based on the foregoing, it became necessary to hypothesize that: pregnant women who are satisfied in their marriages would report less alcohol consumption than their non-satisfied counterparts. Younger pregnant women would report more alcohol use than their elderly counterparts.

Statement of the Problem

Alcohol involves drinking to an extent that exceeds the norms of society and adversely affects the drinker's health, relationship with others and economic functioning. Consumption of alcohol during pregnancy is a worrying public health problem because it is a substance known to cause teratogenic effects, bringing harmful effects to the health of both the mother and the developing foetus. Despite the effect of alcohol on pregnant women, the consumption of alcohol among pregnant women persists especially in South-South, Nigeria. As a way of addressing this problem, numerous studies have been carried out to solve the problem of alcohol consumption among pregnant women. These studies came up with useful insights into solving the problem but with less research focus on the social context of alcohol abuse in pregnant women in South-South Nigeria. Therefore, this study investigated the social context of alcohol abuse in pregnant women in South-South Nigeria.

Research Questions

- 1. What is the level of social context of alcohol abuse in pregnant women?
- 2. Why do pregnant women in the South-South consume alcohol and go into substance abuse?

Significance of the Study

This study revealed the social context of alcohol abuse in pregnant women in pregnant women in South-South Nigeria. The findings of the study would solve the problem of alcohol abuse among pregnant women. Pregnant women would be exposed to the effects of alcohol abuse on pregnant women. This study would add to the pool of research on alcohol abuse among pregnant women. The outcome of the research would benefit families, communities, churches, institutions and states in the South-South to reinforce advocacy in addressing the looming menace to humanity.

Methodology

This study adopted the survey research design. A simple random sampling technique was used to select 150 pregnant women in South-South Nigeria. One instrument was used for data collection: Alcohol Abuse in Pregnant Women Questionnaire (r=0.76). Data collected were analysed using percentage scores, mean and standard deviation.

Results

Table 1: The level of social context of alcohol abuse in pregnant women

S/N	Items	SA	A	D	SD	Mean	St. D
1	Alcohol abuse causes abortion in pregnant women	83 (55.3%)	46 (30.7%)	14 (9.3%)	7 (4.7%)	3.36	.838
2	Alcohol abuse causes stillbirth in pregnant women	62 (41.3%)	80 (53.3%)	6 (4.0%)	2 (1.3%)	3.34	.623
3	Alcohol abuse makes me strong as a pregnant women	81 (54%)	62 (41.3%)	6 (4.0%)	1 (0.7%)	3.48	.610
4	Alcohol abuse causes teratogenic effects in pregnant women	56 (37.3%)	74 (49.3%)	10 (6.7%)	10 (6.7%)	3.17	.825
5	Alcohol abuse affects the placenta in pregnant women.	77 (51.3%)	64 (42.7%)	9 (6%)	-	3.45	.608
6	Alcohol abuse in pregnant women causes low birth weight.	90 (60%)	39 (26%)	12 (8%)	9 (6%)	1.60	.874
7	Alcohol abuse in pregnant women causes heart problems.	79 (52.7%)	64 (42.7%)	7 (4.7%)	-	3.48	.587
8	Alcohol abuse in pregnant women affects the body	70 (46.7%)	72 (48%)	7 (4.7%)	1 (0.7%)	1.59	.614



	system of the women negatively.						
9	Alcohol abuse in pregnant women causes numerous disorders in women	80 (53.3%)	55 (36.7%)	9 (6%)	6 (4%)	3.39	.776
10	Alcohol abuse in pregnant women causes preterm birth.	68 (45.3%)	65 (43.3%)	8 (5.3%)	9 (6%)	1.72	.820
11	Alcohol abuse in pregnant women causes slow development in the foetus	81 (54%)	55 (36.7%)	11 (7.3%)	3 (2%)	1.52	.717
12	Alcohol abuse in pregnant women affects cognitive development	64 (42.7%)	69 (46%)	12 (8%)	5 (3.3%)	3.28	.751
13	Alcohol abuse in pregnant women causes behavioural disorders in the baby when giving birth to	77 (51.3%)	59 (39.3%)	13 (8.7%)	1 (0.7%)	3.41	6.77
14	Alcohol abuse in pregnant women causes neurodevelopmental deficiencies for the child over the life course.	83 (55.3%)	57 (38%)	8 (5.3%)	2 (1.3%)	1.52	.662
15	Alcohol abuse in pregnant women can cause criminal tendencies	108 (72%)	35 (23.3%)	4 (2.7%)	3 (2%)	3.65	.634
16	Alcohol abuse in pregnant women can cause personality problems	77 (51.3%)	58 (38.7%)	10 (6.7%)	5 (3.3%)	1.62	.756
17	The disadvantages of alcohol abuse in pregnant women outweigh its benefits.	74 (49.3%)	59 (39.3%)	16 (10.7%)	1 (0.7%)	3.37	.700
18	No amount of alcohol is considered safe for pregnant women	78 (52%)	59 (39.3%)	10 (6.7%)	3 (2%)	1.58	.706
19	Alcohol abuse in pregnant women affects the physical look of the women	41 (27.3%)	92 (61.3%)	13 (8.7%)	4 (2.7%)	3.13	.672
20	Alcohol abuse in pregnant women affects the way the women relate with people		99 (66%)	4 (2.7%)	1 (0.7%)	1.73	.539
Weig	ghted Mean = 2.67; Threshold = 2	2.50					

Table 1 shows the level of social context of alcohol abuse in pregnant women. The result indicates a weighted mean of 2.67 which is greater than the threshold set at 2.50. This result implies that the majority of the selected pregnant women had a positive level of social context of alcohol abuse in pregnant women.

Discussion

Table 1 revealed that the majority of the selected pregnant women had a positive level of the social context of alcohol abuse in pregnant women. This might be a result of the fact that substance misuse for women is strongly correlated with the experience of violence, sexual abuse, incest, rape, sexual assault and childhood physical abuse. This finding is in line with the study of Atoyebi and Atoyebi (2013) who revealed that girls who have experienced physical or sexual abuse are twice as likely to drink or use substances than those who are not abused. This is contrary to the study of Poole and Dell (2005) who revealed that pregnant women who abused alcohol might be a way of coping with the pain that goes with the physical and mental torture of bad experiences they had during their adolescent stage.

It was informed that men and women of different ages, as well as pregnant women in their various trimesters, overtly drank the locally produced gin. The civic education crusade should similarly inspire women to refrain from alcohol when they intend to become pregnant, to ensure that the foetus is not injured before the pregnancy is established. This health education campaign is probable to be effective in Nigeria for the reason that Nigerian women are possibly to stop drinking alcohol if they are invigorated by their spouses and other important bodies (Ajiboye and Adebayo, 2012). This study reveals that alcohol use (any amount) during pregnancy is high while alcohol addiction, awkward and harmful drinking is low. Knowledge and attitude were significant predictors of alcohol use. While assuaging alcohol use, development partners and relevant government departments should consider interferences that surge knowledge and hazard perception on maternal drinking. Other risk factors that predict maternal drinking for instance preceding alcohol use, residence and uniformity should be lessened or abolished. Intercessions on the lookout for reducing alcohol use during pregnancy should target not only pregnant women but largely women in the reproductive peer group and their influencers such as family members and others. Provided that this is one of a few studies that have evaluated drinking during pregnancy in a post-conflict area, the results call for imperative consideration of the necessity for explicitly targeted involvements to decrease alcohol use among women of childbearing age and pregnant women specifically. This will diminish correlated jeopardies to the mother and the baby. The public instruction drive should also inspire women to refrain from alcohol when they wish to become pregnant, to ensure that the foetus is not injured before the prenatal period is established.



Conclusion

This study designates that alcohol use during pregnancy is high while alcohol addiction, awkward and harmful drinking is truncated. Knowledge and attitude were significant forecasters of alcohol use. Whereas lessening alcohol use, development associates and related government departments should take into cognizance communication and other intercessions that surge knowledge and hazard awareness on maternal drinking. Other hazard features that forecast maternal drinking such as prior alcohol use, residence and equivalence should be moderated or eradicated.

The findings portrayed that there was high alcohol intake during pregnancy in the South-South. Alcohol drinking during pregnancy was connected with despair, partners' alcohol use, unexpected pregnancy and knowledge of the destructive effects of alcohol intake. Thus, this will be a foundation for public rule and resource allocation for prohibition initiatives. Antenatal care workers should also evaluate these factors for enhanced recognition of women at peril for alcohol-exposed pregnancies and promote a healthy life that could be enhanced. The study has shown that women had a positive level of the social context of alcohol abuse in pregnant women. This study has provided a better understanding of the social context of alcohol abuse in pregnant women in South-South Nigeria.

Recommendations

Based on the findings of this study, it was recommended that:

- Pregnant women should do away with alcohol.
- Doctors should expose pregnant women to the effects of abusing alcohol consumption as it causes a risk factor for several harmful pregnancy outcomes.
- Health talks should be organised for pregnant women on why they should not abuse alcohol consumption when they are pregnant.
- Pregnant women should go for periodic medical check-ups and antenatal.

References

- Ajiboye OE, Adebayo KA. (2012). "Socio-cultural Factors affecting Pregnancy Outcome among the Ogu Speaking People of Badagry area of Lagos State, Nigeria". *Int J Humanit Soc Sci* 2012; 2:133-44.
- Aliyu, M. H., Lynch, O., Napa P. N., Alio A. P., Wilson R. E., Marty P. J., Zoorob R., Salihu H,
- M. (2011). Alcohol Consumption during Pregnancy and Risk of Placental Abruption and Placenta Preuia. Maternal Child Health, 15(5): 560-576.
- Alvik A., Heyardahl S., Haldorsen C, &Linderman R. (2006). Alcohol use before and during Pregnancy: a Population-based Study. *ActaObstericaetGynecologicaScandinauica*, 85 1292 1298.
- Bachman, J. G., Wadworth, K. N., O'Malley, P. M., Johnston, L. D. and Schulenberg, J. D. (1997). Smoking, Drinking, and Drug Use in Young Adulthood: The Impact of New Freedom and New Responsibilities. Mahwah, New Jersey: Erlbaum.
- Bakhireva, L., Wilsnack, S., Kristjanson, A., Yuvtushok, L., Onishenko, S., Werteleck, W. and Chambers, C. (2011). Journal of Studies on Alcohol and Drugs, 72 (8): 536 544.
- Bandura, A. (1977). Social Learning Theory. Englewood Cliffs, NJ: Prentice Hall. *European Scientific Journal* April 2016 edition vol.12, No.11 ISSN: 1857 – 7881 (Print) e - ISSN 1857-7431 251
- Bell, J. C., Rayes-Greenow, C., Bower, C., Turner, R. M., Robert, C. L. and Nassar, N. (2013). Descriptive Epidemiology of Cleft Lip and Cleft Palate in Western Australia; Birth Defects Research Part A. *Clinical and Molecular Teratology*, 97,101 108.
- Centre for Disease Control and Prevention (2009). Alcohol use among pregnant and non-pregnant women of child-bearing age in the United States: 1991 2005. *Morbidity and Mortality Weekly Report* MMWR 58:529-532.
- De-Wulp, N., Hoving, C. and De Vries, H. (2014). Partner's Influences and Other Correlates of Prenatal Alcohol Use. *Maternal and Child Health Journal*, 19(4): 1007 1014.
- Ducci, F. and Goldman, D. 92008). Genetic Approaches to Addiction, Genes and Alcohol. Addiction, 103, 1414 1428.



- Epstein, E. E., McCrady, B. S., Miller, K. J., Steinberg, M. (1994). Attrition from Conjoint Alcoholism Treatment: Do Dropouts Differ from Completers? Journal of Substance Abuse, 6, 249 265.
- Kesnodel U., Eisborg K., Olsen S. F., Heniksen T. B. & Secher N. J. (2002). Moderate Alcohol Intake during Pregnancy and the Risk of Stillbirth and Death in the First year of Life: *American Journal of Epidemiology*, 155, 305-313.
- Krulewitch, C. J. (2005). Alcohol Consumption during Pregnancy. *Annual Review of Nursing Research*, 23, 101 134.
- Latino-Martel, P., Chan, D. S., Druesue-Pecollo, N., Barrandon, E., Hercberg, S., and Norate, T. (2010). Maternal Alcohol Consumption during Pregnancy and the Risk of Child Leukaemia: Systematic Review and Metaanalysis. *Cancer Epidemiological Biomarkers* and Prevention, 19 (15): 1238 1260.
- Liew, H. (2012). Effects of Marital Status Transition on Alcohol Use Trajectories. Longitudinal and Life Course Studies, 3 (3): 332 – 345.
- Marshall M. P. (2003) For better or for worse? The effects of alcohol use on marital functioning. *Clinical Psychol Revision*.23: 959–97.
- Martinez, P., Roislein, J., Naidoo, N & Clausen, T. (2011). Alcohol Abstinence and Drinking among African Women; Data from the World Health Survey.http://www.biomedcentral.com/1471 2458/11/160. Assessed; March 14 2014.
- Mellingen, S., Torsheim, T. and Thuen, F. (2013). Changes in Alcohol Use and Relationship Satisfaction during Pregnancy in Norwegian Couples. Substance Abuse Treatment, Prevention and Policy.http//Psychology.uiowa.edu/files. Assessed: January 28, 2015.
- Meschke, l. L., Holl, J., Messelt S. (2012). Older not wiser: risk of prenatal alcohol use by maternal age. Maternal and Child Health Journal: DOI: 10:1007/s 10995-012-0953-7. *European Scientific Journal* April 2016 edition vol.12, No.11
- Morozova, I. V., Goldman, D., Mackay, T. F and Anholt, R. H (2012). The Genetic Basis of Alcoholism: Multiple Phenotype, many Genes, Complex Network. *Genome Biology*, 13, 2 239.

- Nugent, J. K., Lester, B. M., Greene, S and Weeczoreck-Deering, D. (1996). Effects of Maternal Alcohol Consumption and Cigarette Smoking during Pre Acoustic Cry Analysis. *Child Development*, 67 (4): 1805 1815.
- O'Leary, C., Nassar, N., Kurinczuk, J., and Brower, C. (2009). Impact of Maternal Alcohol Consumption on Fetal Growth and Preterm Birth. *British Journal of Obstetrics and Gynaecology*, 116; 390 400.
- Ordinioha, B and Brisibe, S. (2015). Alcohol Consumption among Pregnant Women Attending the Antenatal Clinic of a Tertiary Hospital in South–South Nigeria. *Journal of Clinical Practice*, 18(1): 13 17.
- Pavlov, I. P. (1960). Conditioned Reflexes. New York, Dover. Periera P. K., Lovisi G. M., Lima L. M., Legay L, F., Santos J. F., Santos S, A., Thiengo D. L. and Valencia E. (2011). Depression during Pregnancy: Review of Epidemiological and Clinical aspects in Developed and Developing Countries. In T. Wehara (Ed); *Psychiatric Disorders Trend and Development*. Rijek: Intech Publishers.
- Schuum, W. R., Bollman, S. R. and Jurich, A. P (1985). Criterion-related validity of Kansas Marital Satisfaction Scale. Psychological Report, 56, 719 222.
- Schuum, W. R., Scanlon, E. D., Crow, C. L., Green, D. N., 7 Buckler, D. L. (1983). Characteristics of the Kansas Marital Satisfaction Scale in a Sample of 79 Married Couples. *Psychological Reports*, 53, 583 588.
- Schuum, W. A., Nichols, C. W., Schectman, K. L., and Grigsby, C. E (1983). Characteristics of Response to the Kansas Marital Satisfaction Scale by a Sample of 84 Married Mothers. *Psychological Report*, 55, 569 572.
- Science Daily (2007). Maternal Alcohol During Pregnancy is Associated with Risk for Childhood Conduct Problems.
- Skinner, B. F. (1948). Superstition in the pigeon. *Journal of Experimental Psychology*, 38, 168-172.
- Stagerstrom, J., Chan, G., & Nelsen, P. (2011). Predictors of Drinking during Pregnancy: A Systematic Review. *Journal of Women's Health*, 20(6): 901 903.



- Substance Abuse and Mental Health Services Administration (2013). Trends in Substance Abuse Among Pregnant Women and Women of Child-Bearing Age in Treatment. SAMHSA.http://www.samhsa.gov/data/DASIS.aspx#TEDS. Accessed: 28 November, 2015
- Temple, M. T., Fillmore, K. M., Hartka, E., Johnstone, B., Leino, E. V., Moloyoski, M. A. (1991). Meta-analysis of Change in Marital and Employment Status as Predictors of Alcohol Consumption on a Typical Occasion. British Journal of Addiction, 86, 1269 1281.
- Testa, M. and Leonard, KE. (2001). Impact of Marital Aggression on Women's Psychological and Marital Functioning in a Newly Wed Sample. *Journal of Family Violence*, 16, 115 130.
- Whisman, M. A., Uebelacker, L. A., Bruce, M. L. (2006). Longitudinal Association between Marital Dissatisfaction and Alcohol Use Disorder in a Community Sample. Journal of Family Psychology, 20, 164 167.
- Wilson, J. & Thorp, J. (2008). Substance Abuse in Pregnancy.Global Library of Women's Medicine. http://www.glowm.com/section_view/heading/substance.htm. Assessed, February, 2014.
- World Health Organization (2011). Global Status Report on Alcohol and Health. Geneva: World Health Organization.
- Zins, M., Gueguen, A., Leclerc, A., and Golberg, M. (1991). Alcohol Consumption and Marital Status of French Women in the GAZEL Cohort: A Longitudinal Analysis Between 1992 and 1996. *Journal of Studies on Alcohol and Drugs*, 64 (6), 784 789.