European Journal of Public Health Studies
ISSN: 2668 - 1056
ISSN-L:2668 - 1056
Available on-line at: www.oapub.org/hlt

DOI: 10.46827/ejphs.v2i2.62 Volume 2 | Issue 2 | 2020

RELATIONSHIP BETWEEN MESOSYSTEM INTERACTION AND THE ADOLESCENTS SEXUAL RISK BEHAVIOURS IN ANAMBRA STATE, NIGERIA

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Abstract:
This study determined the relationship between mesosystem and sexual risk behaviours of adolescents in Anambra State. The study was guided by two research questions and one null hypothesis. Correlational research design was used, and the sample consisted of 1470 adolescents in the senior secondary school selected using multi-stage procedure. The instruments for data collection were, mesosystem of Adolescent Questionnaire (MSAQ), made up 8 items and gave reliability coefficient of .81 and Sexual Risk Behaviours Questionnaire (SRBQ), made up of 23 items which gave reliability coefficient of .88. Research question 1was answered using percentages and research question 1 and 2 were Percentages while research question 3 answered using Pearson's Product Moment Correlation. Hypothesis was tested using Simple Regression Analysis at 0.05 Level of Significance. The results showed that majority of the adolescents had good interactions in their mesosystem. There is significant relationship between mesosystem and adolescents' sexual risk behaviours. Based on the findings, it was concluded that mesosystem is a significant predictor of adolescents' sexual risk behaviours. Health educators should find innovative ways of educating the adolescents on the dangers of sexual risk behaviours, using peer and media since it has been found to be a predictor of sexual risk behaviours.

Keywords: mesosystem, adolescents, relationship, sexual risk behaviours, interactions

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1. Introduction

Sexual risk behaviours among adolescents are a major concern of global public health. World Health Organisation (WHO) (2015) identified adolescence as the period in human growth and development that occurs after childhood and before adulthood, from 10 to19 years. It represents one of the critical transitions in the life span, it is characterized by a tremendous pace in growth and change that is second only to that of infancy. Cameron and Kanabarrow (2003) postulated that adolescents experience numerous developmental challenges at varying pace, including: increasing need for independence; evolving sexuality; transitioning through education and commencing employment; consolidating advanced cognitive abilities and negotiating changing relationships with family, peer and broader social connections. WHO (2015) in their recent study stated that many adolescents face pressures to use alcohol, cigarettes, or other drugs and to initiate sexual relationships at earlier ages, thereby putting themselves at high risk for intentional and unintentional injuries, unintended pregnancies and infection from sexually transmitted infections (STIs), including the Human Immunodeficiency Virus (HIV). Many also experience a wide range of adjustment and mental health problems. Adolescent girls who become pregnant are not physically and emotionally mature enough to become mothers; they face a higher risk of pregnancy and delivery complications and they are more likely to drop out of school, limiting their future opportunities for education, employment, and development.

Resource Center for Adolescent Pregnancy Prevention (RECAPP) (2003), however, pointed out that the stages of adolescence can be separated into three: early (10-13 years of age), middle (14-16), and late (17-19). In early adolescence, physical changes include physical and sexual maturation. These changes continue through middle adolescence into the late stage (where they usually are completed), and over time, adolescents are thought to be less concerned with their body image than they were during early adolescence. RECAPP also slated that cognitively; adolescents in the early stage develop concrete thinking abilities, while in middle and late adolescence, the young person moves to thinking abstractly and can develop reasoning skills. Emotionally, adolescents in the early stage are beginning to explore decision-making opportunities, while in the middle stage; they begin to develop a sense of identity, established more fully in late adolescence. Socially, during this stage, peers become a bigger influence and sexual interest usually begins. During the middle stage of adolescence, peers continue to hold influence, and sexual interest develops further.

Doherty, Appel, and Murphy (2004) defined risky behaviour as one that can result in negative consequences for a person's health. Dingeta, Ojira and Asefa (2012) described adolescent's sexual risk behaviours to encompass a variety of behaviours, including early sexual intercourse, multiple sexual partners, unprotected sexual intercourse, engaging in sex with older partners and non-regular partners such as commercial sex workers. Dingeta, et al. equally pointed out that the sexual risk behaviours in adolescence can also include early age of sexual intercourse initiation (at or before 14 years) and participation

in oral sex. This is because according to Dingeta, et al., any sexual activity that exposes an adolescent to bodily fluids, including semen or blood, increases the risk for infection, disease, and pregnancy. Sexual behaviour outcomes of infection, disease, and pregnancy are considered risky because of their ability to adequately disrupt the adolescent's ecology. Sexual risk behaviours as described by Wilson and Wisdom (2011) in early and late adolescence are, in part, a result of an accumulation of ecological factors that have influenced the individual's development, disadvantaged within a family and community ecology. Wilson and Wisdom define community ecology as a person's or family's position in society based on education, employment, and economic characteristics and this includes individual and family standing in society. In this study, adolescents' sexual risk behaviour entails early sexual intercourse, more than one sexual partner, unprotected sexual intercourse, engaging in sex with older partners and non-regular partners such as engaging in sex for money and gifts.

Beginning sexual activity at an early age exposes an individual to the risk of acquiring sexually transmitted infections (STIs), especially because the age is usually early for the individual to have acquired the necessary sex education to navigate relationships successfully (Hallet, Lewis & Lopman, 2007). In an effort to reduce the maternal and infant mortality high rates of STIs and drop out of school, Nigerian government developed a national reproductive health policy aimed at preventing sexual risk behaviours among adolescents that could lead to STIs and HIV, unplanned pregnancies, unsafe abortion and dropout from school (WHO, 2000). According to WHO, the policy identified the major areas of adolescent health care needs and described broad strategies for intervention of sexual risk behaviour. The programme has been hampered, however, by outdated and incomplete information on sexual knowledge, attitudes and behaviour of adolescents in Nigeria. Effective interventions in Nigeria have been hindered by dearth of information on contextual factors that predict sexual risk behaviours (Slap, Lot, Huang, Daniyam, Zink, & Succop 2003). Prediction is a statement that says what you think will happen; while predictor is something that can determine what will happen in the future. Factors within the family and community environment could be predictors of sexual risk behaviours.

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2. Mesosystem

A mesosystem according to Bronfenbrenner (1977) is a system of microsystems. Bronfenbrenner (1979) pointed out that mesosystem comprises the interrelations among two or more settings in which the developing person actively participates. That is, the mesosystem represents the inter-connection between the adolescent and his or her parents and peers (Bronfenbrenner, 2005). The mesosystem moves us beyond the dyad

or two-party relation. Swick and Williams (2006) postulated that mesosystems connect two or more systems in which the child, parent and family lives. Mesosystems provide the connection between the structures of the child's microsystem. For example, the connection between the child's teacher and his parents, between his church and his neighborhood, each represent mesosystems (De Goede, Branje, Delsing and Wim (2009). Adolescents often put more emphasis on the importance of their peer microsystem over their microsystem of their parents and this can either lead to non-detrimental behaviour or detrimental behaviour (Henrich, Brookmeyer, Shrier & Shahar., 2006; De Goede, et al., 2009). The status of an adolescent's microsystem is often affected by their mesosystem. A mesosystem comprises the interrelations among major settings containing the developing person at a particular point in his or her life. In this study, mesosystem comprises adolescent's relationship with both parents and peers; it represents the inter-connection between the adolescent and his/her parents and peers. Where the parents are not connected with adolescents it would predispose them to sexual risk behaviours and likewise when the adolescent is connected or is associated with the deviant peers, it will increase their involvement to risk behaviours.

Several studies have documented the association between religion and behaviour in general and antisocial behaviour. As far as sexual behaviour is concerned, Odimegwu (2005) observed a relationship between religion and sexual attitudes. McMillen, Helm, and McBridge, (2011) found that the religious group to which people identify appears to be substantially correlated with how they evaluate the appropriateness of premarital sexual behaviour and with the sexual mores they choose to follow in their own lives including first sexual intercourse and less permissive attitudes about premarital sex. Several scholars have observed that adolescents who attached importance to religion were significantly more aware of the dangers of HIV/AIDS than their non-religious counterparts; they are more likely to delay sexual involvement than those with lower levels of religiousity (Hardy & Raffaelli 2003).

There is an intricate relationship between poverty and reproductive health. Young women often engage in these risky behaviours such as unsafe sex in exchange for monetary incentives. Promotion of abstinence and suppression of sexual desire is the teaching of many of the religious groups in Nigeria. According to the 2008 Nigeria Demographic and Health Survey (NDHS) most Nigerians are involved in the two popular religious groups (Christianity = 54 % and Islam = 44 %) while only 2 % fall into no religious or traditional category. There are several diverse denominations or sects which have sprung up in the last three decades among the two popular religious groups– Christianity and Islam – but are more obvious among the Christian religious group in all nooks and crannies of the country (National Population Commission, 2009). Durojaiye (2008) observed that despite the fact that these risky sexual behaviours such as premarital sexual practices are prohibited by these religions, young people are not refraining from such practices. Researchers revealed that many of the young people have low or inaccurate knowledge of sexual and reproductive health, and have very little use of family planning or other protective measures. It is a broadly-held religious belief that

sexual desires ought to be repressed and that some roles that religion play in regulating sexual behaviour have clear social and cultural benefits is yet to be fully explored.

3. Research Questions

The following research questions guided the study.

1) What are the scores of adolescents in adolescents' mesosystem interaction?
2) What are the scores of adolescents on their sexual risk behaviours?
3) What is the relationship between mesosystem interaction and adolescents' sexual risk behaviours?

3.1 Hypothesis

Mesosystem interaction of secondary school students will not significantly predict their sexual risk behaviours.

4. Methodology

Correlational research design was employed in the present study. The area of study was Anambra State. The population of the study consisted of 49,284 senior secondary school students (SS1 and SS2) in Anambra State. Multistage sample procedure was used to select the sample size of 1470 (made up of 735 of SS1 and 735 of SS2) adolescents. The instruments for data collection were two structured questionnaires known as Mesosystem of Adolescents Questionnaire (MSAQ) and Sexual Risk Behaviours Questionnaire (SRBQ). The first questionnaire MSAQ contains 8 items and the second questionnaire SRBQ contains 23 items where the respondents were required to indicate on four point scale, using always (A), often (O), occasionally (OC) and never (N) on the question items respectively. The face and content validity of the instruments was obtained through the judgments of four experts. The internal consistency of the instruments was computed using Cronbach alpha reliability coefficient. Research questions 1and 2 were answered using percentages while research question 3 was answered using Person's Product Moment Correlation. Hypothesis was tested using Simple Regression analysis at 0.05 level of significance. In other to describe the relationship between the variables, Wilson's interpretation of the value of "r" was adopted. In the interpretation, a value of .01-.19 was considered "very low relationship; .02-.39 "low"; .40-.49 "moderate"; .70-.89 "high"; .90-.99 "very high"; and 1.0 "perfect" relationship. A plus or minus (+) or (-) sign indicates whether the correlation is positive or negative.

5. Results

Research Question 1: What are the scores of adolescents in adolescents Mesosytem?

Table 1: Range of Scores of adolescents on their Mesosystem (n=1405)

Components	Range of Scores	n	%	Remarks
Mesosystem	8 - 19	98	7.0	Poor interaction
	20 - 32	1307	93.0	Good interaction

Table 1 shows that the scores ranging from 20 to 32, 1307 (93%) of the students had good interaction with mesosystem while 98 (7.0%) other students who scored between 8 and 19 have poor interaction with mesosystem.

Research Question 2: What are the scores of adolescents on their sexual risk behaviours?

Table 2: Range of Scores on Adolescents' Sexual Risk Behaviours (n=1405)

Range of scores	N	%	Remarks
23 – 57	1281	91.2	Good sexual risk behaviour
58 – 92	124	8.8	Bad sexual risk behaviour

In table 2, it was observed that scores ranging from 23 to 57, 1281(91.2%) of adolecscents had good sexual risk behaviours, while 124(8.8%) students who scored between 58 and 92 had bad sexual risk behaviours.

Research Question 3: What is the relationship between mesosystem interaction and adolescents sexual risk behaviours in Anambra State?

Table 3: Pearson's Product Moment Correlation of Relationship between mesosystem interaction and Secondary School Students Sexual Risk Behaviours in Anambra State (n=1405)

Component		SRB
Mesosystem	Pearson Correlation	-.104**
	Sig. (2-tailed)	.000

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4 reveals that the mesosystem of the adolescents had correlation with their sexual risk behaviours of ($r = -0.104$), $p<0.01$. This indicates that mesosystem had a negative low relationship of adolescents' sexual risk behaviours in Anambra State.

Null Hypothesis 1: Mesosystem of secondary school students will not significantly predict their sexual risk behaviours.

Table 4: Simple Regression Analysis of the relationship between Mesosystem interaction of the Secondary School Students and Their Sexual Risk Behaviours (1405)

Variable	R	R^2	R^2 Adj	B	% variance	Cal. F	df	Crit. F	Remark
Mesosystem	0.104	0.011	0.299	0.104	1.00	13.34	1403	3.84	S

Table 4 indicates that mesosystem of secondary school students had R^2 Adjusted of 0.299. This indicates that mesosystem had the predictive power of 1.0 percent for sexual risk behaviours of the secondary school students. Also, at 1df numerator, 1403 df denominator and 0.05 level of significant, the calculated F value 15.34 was greater than the critical F value of 3.84. Therefore, the secondary school students' mesosystem was a significant predictor of their sexual risk behaviours.

6. Discussion

Majority of the adolescents had good interaction with regard to mesosystem. This finding was not surprising because in Igbo land parents introduce and bring their children to the church and the church tries to inculcate good morals in the children. This is through teaching some various religious activities. Interactions between the family and the teachers in the school can also play a role, because school is considered one of the most essential ecological contexts for promoting positive development among the students. This finding is in agreement with the findings of Henry and Slater (2007) which showed that school is the principal environment for behaviour modeling and that students who demonstrate a positive attachment to school are less likely to be involved in sexual risk behaviours. This finding was also in consonance with the findings of Rew and Wong (2006) that 80 percent of the studies reviewed indicated that religiosity measures had positive impact on adolescents' health attitudes and behaviours. The implication of this finding is that there is need to foster students' behaviours through church-based and school-based youth intervention programme that promote positive development.

This finding was surprising since the adolescence age is a transition time where the students experience changes following puberty. These changes could lead them out of curiosity to experiment sex that predisposes them to engage in common sexual risk behaviours. The reason might be because they had good interaction in their ecosystem which influenced them positively. Majority of the students had good sexual risk behvaiour and the possible reason for the difference in this present study might be due to the level of interaction that existed in the secondary school students' ecology. The finding was in disagreement with the findings of Kassa, et al. (2016) that a large number of in-school adolescents were involved in risky sexual intercourse, having multiple sexual partners, inconsistence use of condom and having sex with commercial sex workers. This might be the reason majority of them had good interaction with their mesosystem, and it influenced them positively.

The finding showed that mesosystem which comprised of school and church was a predictor of the secondary school students' sexual risk behaviours. It also showed that mesosystem had the predictive power of 1.0 percent for their sexual risk behaviours.

School is a very important domain for secondary school students as most spend a greater deal of their time in the educational system. Secondary school students that their teachers treat fairly tend to learn good morals from them. And the teachers give report to their parents about their behaviours in school, this likely discourage them from engaging in sexual risk behaviours. This finding is in line with the findings of Denny, Robinson, Utter and Fleming (2010) that school support or teacher's concern is an important predictor of the sexual risk behavior. Denny, Robinson, Utter and Fleming revealed that the school environment and its personnel play an important protective role in keeping adolescents healthy and informed on sexual health issues. Students who are connected to school could less likely engaged in sexual risk behaviours because according to Pedlow and Carrey (2004) poor connectedness to school is associated with sexual risk behaviour. This finding agreed with the findings of Morhason-Bello, Oladokun, Enakpene, Fabamiro, Obisesan, and Ojengbede (2008) which reported strong association among adolescents sexual risk behaviours and school, interpersonal family relationship as well as the level of education and presence of parents. Protection is increased if adolescents were highly connected to school and exhibit a high-grade point and adhere to school policies (Nelson & Gordon-Larsen, 2006).

The result also showed that adolescents' interaction to mesosystem was a significant predictor of their sexual risk behaviours. Students who value their religion and make friends they consider religious and whose religion inculcates good morals have restrictive attitudes towards premarital sex. This finding was in line with that of Odimegwu (2005) who revealed that there was a strong relationship between religiosity and sexual risk behaviours. This finding was at variance with the findings of Paul, Fitzjohn, Eberhart-Philips, Herbison & Dickson (2000) who observed that individuals who attend religious services frequently and who value religion in their lives are probably more likely than others to develop sexual attitudes and behaviour that are consistent with their religious doctrines. This finding was also in line with the findings of Holder (2000) that youth who are not sexually active scored significantly higher than sexually active youth on the importance of religion in their lives.

7. Conclusions

Based on the findings, it is clear that there is relationship between mesosystem interaction and sexual risk behaviours of adolescents in Anambra State and the following recommendations were made, Government should take up ecological youth prevention programme focusing the schools and churches since there is relationship them and adolescents sexual risk behaviours. Health educators should find innovative ways of educating the adolescents on the dangers of sexual risk behaviours, using Church based and media education. Health education designers should give attention to adolescent's reproductive health and designs a comprehensive sex education programme for secondary school students' curriculum, targeting sexual risk bahviours and its consequences.

References

Bronfenbrenner, U. (1977). Towards an experimental ecology of human development. *American Psychologist*, 33, 513-531.

Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American Psychologist, 34*(10), 844.

Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development.* California. Sage Publications.

Cameron, G. & Karabunow, J. (2003). The nature and effectiveness of program models for adolescent at risk of entering the formal child protection system. *Child Welfare, 82*(4), 443-474.

Denny, S. Robinson, E. Utter, J. & Fleming, T. (2010). Do Schools Influence Student Risk-Taking Behaviours and Emotional Health Symptoms?, *Journal of Adolescent Health, 48*(3), 259 – 267.

De Goede, H. A., Branje, J. T., Delsing, M. H. & Wim, H. J. (2009). Linkages over time between adolescents' relationship with parents and friends. *Journal of Youth Adolescence, 38*(10), 1304-1315.

Dingeta, T. Ojira, L. & Asefa, N. (2012). Patterns of sexual risk behaviour among undergraduate University students in Ethiopia. *Pan African Medical Journal*, 2, 12-33.

Doherty, E. A., Appel, M. A., & Murphy, C. E. (2004). *Risk taking behaviour in college students as a function of personality, social and cognitive variables*. Paper presented at a meeting of the American Psychosomatic Society, Orlando, FL.

Durojaiye, C. (2008). Knowledge, perception and behaviour of Nigerian youths on HIV/AIDS. *The Internet Journal of Health*, 9.

Hardy, S. A. & Raffaelli, M. (2003). Adolescent religiousity and sexuality: An investigation of reciprocal influences. *Journal of Adolescence, 26*(6), 731-739.

Holder, D. W., Robert, H. D., Treniece, L. H., Jessica, H. D., Dawn, O. & Elizabeth, G. (2000). The association between adolescents' spirituality and voluntary sexual activity. *Journal of Adolescents Health, 26*(4), 295-302.

Kassa, G. M., Degu, G., Yitayew, M., Misaganaw, W. Muche, M. Demelash, T., Mesele, M. & Ayehu, M. (2016). Risky sexual behaviours and associated factors among Jiga High school and Preparatory school students, Amhara Region, Ethiopia. *Internationally Scholarly Research Notices*. http://dx.doi.org/10.1155/2016/4315729.

McMillen, E. K., Helm, H. W. & McBridge, D. C. (2011). Religious orientations and sexual attitudes and behaviours. *Journal of Research on Christian Education, 20*(1), 195-206.

Morhason-Bello, I. O., Oladokun, A., Enakpene, C. A., Fabamiro, A. O., Obisesan, K. A. & Ojengbede, O. A.(2008). Sexual behaviour of in-school adolescents in Ibadan, South-West Nigeria. *African Reproductive Health,* 12**,** 89-97.

National Population Commission (NPC) (2009). *Nigeria Demographic and Health Survey 2008,* Abuja, Nigeria: National Population Commission and ICF Macro.

Nelson, M. C. & Gordon-Larsen (2006). Physical Activity and Sedentary Behaviour Patterns are Associated with Selected Adolescent *Health Risk Behaviours Paediatrics*, 117, 1281 - 1290. Doi:10.1542/ped.2005-1692.

Odimegwu, C. (2005). Influence of religion on adolescent sexual attitudes and behaviour among Nigerian University students: Affiliation or Commitment? *Women's Health and Action Research Centre, 9*(2), 125-140.

Paul, C. Fitzjohn, J., Eberhant-Philips, J. Herberson, P. & Dickson, N. (2000). Sexual Abstinence at Age 21 in New Zealand. The Importance of Religion, *Social Science and Medicine*, 51, 1 – 10.

Pedlow, C. T, & Carey, M. P. (2000). Developmentally-Appropriate Sexual Risk Reduction Interventions for Adolescents: Rationale, Review of Interventions and Recommendations for Research and Practice, *Annals of Behavioural Medicine, 27*(3), 178 – 184.

Resource Center for Adolescent Pregnancy Prevention (RECAPP) (2003) *An Overview of Adolescent Development*. Education, Training and Research Associates. Retrieved January 6, 2005 www.etr.org/recapp/theories/adolescentdevelopment/overview.htm

Rew, L. & Wong, Y. J. (2006). A Systematic Review of Associations among Religiosity/Spirituality and Adolescent Health Attitudes and Behaviours, *Journal of Adolescent Health, 38*(4), 433 – 442.

Slap, G. B., Lot, L., Huang, B., Daniyam, C. A., Zink, T. M. & Succop, P. A. (2003). Sexual behaviour of adolescents in Nigeria: Cross-sectional survey of secondary school students. *British Medical Journal*, 326, 1-6.

Swick, K. J. & Williams, R. D ((2006). An Analysis of Bronfenbrenner's Bio-Ecological Perspective for early Childhood Educators: Implications for Working with Families Experiencing Stress, *Early Childhood Education Journal, 33*(5), 371 – 378.

Wilson, H. W. & Wisdom, C. S. (2011). Pathways from childhood abuse and neglect to HIV-risk sexual behaviour in middle adulthood. *Journal Consult Clinical Psychology, 79*(2), 236-246.

World Health Organisation (WHO) (2000). *Nigeria: Country progress report*. Geneva: WHO.

World Health Organisation (WHO) (2015). *Maternal, Newborn, Child and adolescent health*. Geneva: WHO.

World Health Organisation (WHO) (2015). *Reproductive Health*. Geneva: WHO.