

Cultural Factors as Determinant of Teen Pregnancy Prevalence in Kakamega County, Kenya

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ABSTRACT

Culture shapes the development and expression of human behavior. Teenage behaviors are partly a product of prevalent cultural trends. This study examined the relationship between cultural factors and teen pregnancy prevalence in Kakamega County, Kenya. The study was anchored on the sexual script theory developed by Gagnon and Simon in 1973 and the symbolic interaction theory advanced by Blumer in 1969. The research was descriptive and cross-sectional in design. It targeted teenagers (aged 15–19 years) and key informants in Kakamega County. Purposive sampling was used to select Butere and Ikolomani sub-counties, random sampling to select two wards in each sub-county, and systematic sampling to obtain participants. The sample size was 438, calculated using the Yamane formula. Data was collected using semi-structured questionnaires and key informant interviews. Quantitative data was analyzed using STATA version 18. Descriptive statistics were used to generate frequencies and percentages, and the chi-square test as well as binary logistic regression were used to determine the association between variables. Values were considered significant at a p-value <0.05. Qualitative data was analyzed thematically. The study findings revealed that cultural factors, such as sex discussion at family and community levels, parental strictness, contraceptive use, teen marriage, contraceptive non-use, decision-making power in marriage, religious views and affiliation, and family reaction to pregnancy, contributed at varying degrees to teen pregnancy prevalence. The study results found a significant relationship between cultural factors and teen pregnancy prevalence in Kakamega County, Kenya ($p < 0.001$). It is recommended that parents and other stakeholders create a conducive environment where free conversations and training on healthy sexual behaviors among teenagers are possible.

Keywords: Cultural Factors, Teen Pregnancy Prevalence, Kakamega, Kenya

I. INTRODUCTION

The World Health Organization regards teenage pregnancy as a health threat for the child as well as for the mother (World Health Organization [WHO], 2014). In addition to physical and mental difficulties lived by both mother and child, namely a higher rate of stillborn, neonatal deaths, postpartum haemorrhage, depression and anxiety, childbearing teenagers often face decisions, such as abandoning school, having a long-term impact on their personal life, their family and their community (Moisan et al., 2016). Teenage pregnancy is considered the leading cause of infant and maternal mortality rates in developing countries (Kassa et al., 2021). Among the developing countries, the sub-Saharan Africa recorded the highest prevalence of teenage pregnancy in the world in 2013, which accounted for more than half of all births in the region (Odimegwu & Mkwanzani, 2016). Majority of young women aged 20–24 years old who gave birth before the age of 18 lived in the sub-Saharan Africa (Gunawardena et al., 2019).

Among the factors contributing to teen pregnancy are pressure to marry and bear children, inaccessibility of the contraceptives, restrictive laws and policies regarding the provision of contraceptives based on age or marital status, child sexual abuse (World Health Organization, 2020) and sexual violence (World Health Organization, 2021). Previous studies have shown that being sexually active at an early age, early marriage, older teenage, married women, educational attainment, age at first sex, household wealth, family structure, exposure to media, community poverty level and contraceptive use are significantly associated with teen pregnancy (Brahmbhatt et al., 2014). Teen pregnancies is prevalent in poor populations, and is associated with such factors as poverty, lack of education, and work opportunities (United Nations Children Fund [UNICEF], 2014).

In Kenya, teenage pregnancy is not only a reproductive health issue but it also affects the current and future socio-economic well-being of women. It is estimated that approximately 3000 girls drop out of school annually in Kenya due to teenage pregnancy (Barmao-Kiptanui et al., 2015). Kakamega County has a high prevalence of teen pregnancy of 15% (Kenya National Bureau of Statistics, 2022). According to Kakamega County Policy Brief 2020, teenage pregnancy chiefly results from low use of contraceptives. Left unaddressed, teenage pregnancy can become a major cause of drawbacks in achieving the SDGs and the Kenya Vision 2030 because “from the economic perspective, it is estimated that the lifetime cost of teenage pregnancy in Kenya could be as high as 17 percent of annual GDP” (AFIDEP/UNFPA, 2019). Therefore, this paper examined the influence of cultural factors on teen pregnancy prevalence in Kakamega County, Kenya.

1.1 Statement of the Problem

Despite the 2015 Kenya government policy on Adolescent Sexual Reproductive Health (ASRH), and the 2012 policy on Population and National Development, teen pregnancy still remains high. In Kenya, almost 1 in every 5 girls between the ages of 15 and 19 years is reported to be pregnant or have had a child already. This trend has been consistent for more than two decades, with the national Demographic and Health Surveys showing little change in prevalence between 1993 and 2014 (AFIDEP/UNFPA, 2019). Kakamega County has a high prevalence of teen pregnancy of 15% (KNBS, 2022). According to Kakamega County Policy Brief 2020, teenage pregnancy chiefly results from low use of contraceptives. Left unaddressed, teenage pregnancy can become a major cause of drawbacks in achieving the SDGs and the Kenya Vision 2030 because “from the economic perspective, it is estimated that the lifetime cost of teenage pregnancy in Kenya could be as high as 17 percent of annual GDP” (AFIDEP/UNFPA, 2019). Therefore, it was important to examine the cultural factors that contribute to teen pregnancy prevalence in order to determine appropriate and effective intervention to reduce risks of pregnancy among adolescents in the study area.

1.2 Research Objective

To examine the effect of cultural factors on teen pregnancy prevalence in Kakamega County, Kenya

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Sexual Script Theory

Gagnon and Simon introduced the sexual scripting theory in 1973. They developed scripting theory in response to the dominant biological model of sexuality. In this biological model, sexual behaviour is determined through innate biological drives. Gagnon and Simon (1973) found exclusively biological explanations of sex lacking and argued that sexuality is a social product. Sex takes place within a particular social context that determines what is considered sexual and how sex is enacted. They use the language of the theatre to describe how scripts work. People are “actors” who are using “scripts” to understand and shape their sexual interactions. Sexual scripts help “actors” identify sexual situations and behaviours, and suggest the appropriateness of engaging in particular behaviours, including the order in which those behaviours typically occur. Scripts vary by culture and by individual, so that no two people will have identical sexual scripts, but people within a specific culture should have access to scripts that are reasonably similar (McCormick, 2010).

To be able to understand the effects of these scripts, Simon and Gagnon created a model to cover some analytical levels. This model consists of social, interpersonal, and individual scripts. The social scripts include social edicts, such as cultural, religious, and social positions. The interpersonal script is more specific and varies between groups, according to sub-culture, social network, and interaction between people. The individual scripts are created in relation to both social and interpersonal scripts (Simon & Gagnon, 2003).

Scripts operate at three different levels (Simon & Gagnon, 2003). At the most macro level, cultural scripts relate to gender roles within heterosexuality and how sexuality is supposed to be enacted (Simon & Gagnon, 1986). Interpersonal scripts are developed through socialization and learning in particular circumstances. They describe how sex is to play out in particular circumstances (which activities are part of the heterosexual dating scripts and which order they come in, or how they are paired with other activities (Simon & Gagnon, 1986). Intrapsychic scripts influence how gender roles are produced at the individual level including sexual fantasies and desires. These three levels of scripts interact to produce various versions of sexuality and to explain patterns of sexuality within particular cultures and groups (Whittier & Simon, 2001).

Scripting theory has been taken up, particularly in the 1980s and 1990s, by post-positivist researchers using predominantly quantitative methods. More recently, researchers operating within a social constructionist frame have

been working with scripting theory, and typically use qualitative methodologies. Research situated within a post-positivist frame has examined dating scripts, with particular focus on gender roles within the scripts (Laner & Ventrone, 2000).

Sexual scripts are the approved norms regarding sexuality that individuals embrace, internalize, and endorse through a process of socialization (Simon & Gagnon, 1986). Scripts has become the models people use to interpret and respond to sexual situations (Simon & Gagnon, 1986). Sexuality is learned from culturally available messages that set guidelines regarding sexual behaviour and activities (Frith & Kitzinger, 2001). Maticka-Tyndale *et al.* (2005) used scripting theory to develop an in-depth understanding of how sexuality is experienced by Kenyan young people and examine the socio-cultural contexts in which it is embedded. They found that sexual encounters were described as both mundane and inevitable as well as followed a predetermined scripted sequence of events and interactions in which young women and men played complementary roles (Maticka-Tyndale *et al.*, 2005). The theory explains sexuality and sexual desires, which are derived by the urge to experiment. This theory lays a background of teen pregnancy which occurs in the process of trying to demonstrate and respond to body desires. The gaps in this theory led to the study assess determinants contributing to teen pregnancy prevalence in Kakamega County.

2.1.2 Symbolic Interaction Theory

This theory emphasizes the social processes that present within human interactions. Individuals create their realities by attaching meaning to situations and social constructs (Blumer, 1969). Based on this fundamental notion, three principles of symbolic interaction theory including meaning, language, and thought can be applied to the experiences of teen pregnancy (Blumer, 1969). First, the principle of meaning states that humans act toward people and things based on the meaning that they have given to them. For example, a pregnant teen may conceal her pregnancy or delay or never attend a prenatal care clinic because she gives a negative meaning to pregnancy because of the humiliation it represents to herself and her family in the society. Second is the principle of language. People use language as symbols to convey their feelings, needs, information, or voices. Naming assigns meaning. Pregnant teens tell their experiences through communication with other people. The last principle is thought. Thought modifies each individual's interpretation of symbols and is based on language.

Pregnant teens tell their stories through their thought processes (Blumer, 1969). Two concepts of symbolic interaction theory, including a) the looking glass self as developed by Charles Horton Cooley (Perdue, 1986) and b) role (Mead, 1934) can be applied to study teen pregnancy. The concept of "the looking glass self" is presented in three phases. First, individuals think about themselves when they interact with people. Second, they consider how these people think about them. Finally, they create their own ideas and feelings by using the former phases as a mirror or a reflection. Based on this, the pregnant teen reflects about being pregnant and a mother who interacts with people in the society. This theory mimics the current society where parents do not discuss sexual issues with their children; some cultures as well don't allow topics or discussions on sexual education. On the other hand, teenagers fear expressing their sexual experience with the parents because of stigma and fear and the nature of the society they come from. This theory guided in assessing determinants factors leading to teen pregnancy.

2.2 Empirical Review

Cultural factors are shared values, beliefs, norms, artefacts and practices within a society or group that shape individuals' behaviours, perceptions and interactions. These factors influence the prevalence of teen pregnancy. Early marriage is the leading cultural factor in teen pregnancy. Statistics show that marriages occur earlier in developing than in developed regions of the world (Suhariyati *et al.*, 2019). According to UNFPA, global estimates indicate that more than 60 million mothers currently in the age group of 20-24 years were married before they reached 18 years. Extent of early marriage varies from region to region. Girls most likely to be married off early are those from poor household, come from rural areas, and with no or little levels of education (Suhariyati *et al.*, 2019). Furthermore, girls married at tender age are most likely to have greater age gap with their spouses as well as control and independence in the union thus elevated odds of pregnancy (Lee-Rife *et al.*, 2012). Additionally, three in five married women, including teenagers, become physically forced to have sex when they do not have the desire but some do with the fear of husband (Farvid & Saing, 2022). In many traditional kinship-based societies, such as in Asia, Middle East and North Africa, girls are married off as soon as they reach menarche and begin child bearing soon after (Suhariyati *et al.*, 2019). Early marriage has been culturally syntonc, planned and historically not considered a problem for the young woman or her children. Early pregnancy legitimized by marriage was not considered problematic for young women, even if the pregnancy was unplanned (Farvid & Saing, 2022).

The above works attest that early marriages contribute to teen pregnancy prevalence. However, the studies do not provide empirical data on the same, a gap that the current study sought to fill by examining how cultural factors

shape teenage pregnancy prevalence in Kakamega County, Kenya. A study in Juba, South Sudan, explored the factors contributing to and affecting pregnancy among teenagers (Vincent & Alemu, 2016). The study used descriptive cross-sectional study design. It found that cultural beliefs like expectation of early marriage contributed significantly to teen pregnancy. The study recommended enforcement of laws that prohibit early marriages, rape and abduction of girls. These factors helped the current study to expand the units of analysis in examining the cultural factors shaping teen pregnancy prevalence in Kakamega County, Kenya.

In Ethiopia, a study sought to determine the perceived influence of socio-cultural factors on teens' sexual behaviours (Baraki & Thupayagale-Tshweneagae, 2023). This was a qualitative descriptive study involving purposively selected health professionals and teens in Addis Ababa, Ethiopia. The study found that poor school involvement, social norms on sexual behaviour and low use of contraceptives by the general population, financial problems and the gap in law enforcement were perceived factors influencing sexual behaviour of teens. It was recommended that social and culturally acceptable age-appropriate comprehensive sexuality education for teens and other multilevel interventions needs to be introduced to alleviate the risks of teen sexual activities. The reviewed study focused on teens' sexual activities, which is a precursor to pregnancy. It was found useful in exploring socio-cultural factors contributing to teen pregnancy prevalence in Kakamega County, Kenya.

Some cultures tolerate young parenthood (McCall et al., 2015). They perceive it as accidental and no need to rebuke them. Teenagers brought up in societies, families and environment that tolerate teen pregnancy have higher risk of getting pregnant because they don't mind the outcome of having sex at early ages (Nguyen et al., 2016). Parents take care of the young mothers and embrace their behaviours thus encouraging teenagers to be young mothers. In other communities, teenagers who are yet to be married are seen as a burden to the family (McCall et al., 2015). Such teenagers are pushed to leave home, especially through marriage. These studies show that cultural attitudes towards teenage as a stage in girls' human development contribute to risks of teen pregnancy. Therefore, the present study sought to understand the various dimensions of cultural factors shaping teen pregnancy prevalence in Kakamega County, Kenya.

A study done by Akanbi et al. (2021) on socio-economic factors shaping teen pregnancy in Nigeria found that, in some communities, it is taboo to discuss sex. This is because mentioning of sex implies sexual experience, which is linked to immorality and damage of reputations. Therefore, in the absence of teen and sexual reproductive health education and sensitization, teen pregnancy is a common occurrence, which is also visited with a lot of stigma in such communities. Subsequently, teenage mothers suffer the double tragedy of both the pregnancy and the attendant stigma, which can impair with their ability to raise their child. Akanbi et al. (2021) provide a rich perspective on socio-economic dynamics of teen pregnancy in the context of Nigeria. Drawing from the reviewed work, the present study examined the role of cultural factors in teen pregnancy prevalence in Kakamega County, Kenya.

Chase (2019) in his study found that some religions do not encourage sex related discourse because of the belief that sex represents moral impurity and sin. In this case, girls in such societies lack knowledge on sexual reproductive health to help them make appropriate decisions about their sexuality. In such religious set-ups, education on contraceptives is forbidden since sex is designed only for procreation in the context of marriage (Chase, 2019). Chase's article is highly theoretical in that it is not based on empirical data. Therefore, it fails to account for the factors behind religious taboos on sex as a topic. The current study sought to fill this gap by examining the influence of cultural factors, including religious beliefs and doctrines, on teen pregnancy prevalence in Kakamega County, Kenya.

During adolescence, young people navigate numerous physical, cognitive, emotional and behavioural changes as they acquire increasing autonomy and experiment in many areas. Experimentation may include alcohol or drug use, smoking and sexual activity, all of which may be associated with sexual and reproductive health risks such as unintended teenage pregnancy and sexually transmitted infections (STIs) (Mamo et al., 2021). Married teens are prone to get pregnant early compared to single teens. In their study, Mamo et al. found that married teens have been found to be more than two times more likely to get pregnant. This is because in many societies, marriage increases the pressure to bear children (Mamo et al., 2021). The reviewed study points to early marriage as a contributing factor to teen pregnancy. Drawing inspiration from the reviewed work, the present study examined the economic factors that push teen girls to risks of pregnancy in Kakamega County, Kenya.

A study done in Kenya analysed the trends and determinants of teen pregnancy using three sets of National Demographic Health Survey data from (2003, 2008/009 to 2014 (Mutea et al., 2022). The target groups of the data were women aged 20-24 years who reported their pregnancy between age 15 and 19 years. Binary logistic regression and pooled regression analysis were used. The study found that education status, marital status, religion and wealth quintile were associated with teen pregnancy. Trend analysis showed that there was an overall decreasing trend in teen pregnancy between 2003 and 2014. The current study explored these factors in relation to teen pregnancy prevalence in Kakamega County, Kenya.

III. METHODOLOGY

3.1 Study Area

The study was carried out in Butere and Ikolomani Sub-Counties since they have high prevalence of teen pregnancy of 29% and 28%, respectively (Kakamega County Government, 2021). Limited studies on determinants of teen pregnancy have been conducted in the area.

3.2 Study Design

The study employed descriptive cross-sectional research design because it sought to investigate, expose and provide useful insights into a population's characteristics in a defined area, at a specific point or period in time without attempting to draw any inferences.

3.3 Sample Size Determination and Sampling Procedure

For this study, the population comprised teenagers between the ages of 15 and 19 years. From demographic perspective, child birth begins at age 15. The study also targeted key stakeholders in public health, namely Community Health Volunteers, Children Officer of the County, and the Gender-Based Violence Coordinator at the County. Purposive sampling was used to select Butere and Ikolomani among sub-counties in Kakamega County because of high prevalence of teen pregnancy and limited studies have been conducted in these two areas. Simple random sampling was used to select two wards in the two Sub-Counties that is: Marama Central and North, Idakho South and East. To obtain the community health units required per selected wards, simple random sampling method was also used because it reduces the potential for human bias in the selection of cases to be included in the sample. Each community health unit had approximately 250 teenagers. Within the sampled community health units, teenagers who met the inclusion criteria were identified by name and place (household) were selected using systematic sampling. Purposive sampling was used to select 8 Community Health Volunteers (four from each Sub-County), 1 Children Officer of the County, and 1 Gender-Based Violence Officer at the County. Yamane (1967) formula was used to determine the sample size of the participants. Therefore, the sample size for this study was 438.

3.4 Data Collection Instruments

Data was collected using a semi-structured questionnaire for teenagers and a key informant's interview schedule.

3.5 Data Analysis

Once the questionnaires were received, they were examined for errors and completeness. Thereafter, they were coded into the SPSS version 26. The data was then imported to STATA version 18 for further data cleaning and management. Inspection of all the variables was done to identify errors and outliers. Descriptive analysis was done to generate frequencies, means and percentages. Data was then presented in form of tables and graphs. Chi-square and binary logistic regression were carried out to relate the effects of economic factors on teen pregnancy prevalence. Data from the interviews were transcribed into Microsoft Word, and then content analysis based on themes was carried out.

IV. FINDINGS

4.1 Response Rate

A total of 438 questionnaires were distributed to the sampled teenagers in the two sub-counties under study. The questionnaires that were duly filled and returned were 401. This represented 91.6% response rate, which was sufficient to provide valid and reliable interpretation of data and to draw conclusions on the study topic.

4.2 Cultural Characteristics of Teenagers

The study examined the effect of cultural factors on teen pregnancy prevalence in Kakamega County, Kenya. Among the 401 teen respondents, 304(75.8%) had never had conversations about sex with their parent while 97(24.2%) had had such discussions. The key informants affirmed that most parents find it shameful to talk to their teenagers about sex. They fear that initiating such conversations might make teenagers wonder if the parent had noticed tendencies of sexual misdemeanour. As one of the respondents put it:

“Not really, they find it awkward and something shameful to initiate sex topic to their teenagers” (CHV Ikolomani, KII, 2024).



Majority, 229(58.1%) of the teens used contraceptives while 165(41.9%) did not use. Among those who did not use contraceptives, most, 96(44.7%), said they had not been sexually active, 56(27.6%) cited religious prohibition denied them and did not have frequent sex. Therefore, it was noted that contraceptive use was low among teenagers, despite majority of them being sexually active. The low use of contraceptives was associated with a range of factors, from personal preference to socio-cultural and religious restrictions. Meanwhile, 293(73.3%), of the teens were not married while 107(26.8%) were married. Majority, 53(51.0%), said they had made the decision for marriage by themselves while 38(36.5%) said the decision had been made for them by their boyfriends. Only 13(12.5%) were decided for by their parents. It was interesting that a significant number of teens in the study area were married. The legal marriage age in Kenya is 18 years.

Further, 230(57.8%) said that sex discussion was not allowed in the community while 168(57.8%) said it was allowed. Therefore, as earlier indicated, very few parents and adults in the community discussed sex with teenagers. Parents' strictness level varied among respondents with 219(54.8%) saying their parents were not strict, 95(23.8%) had strict parents while 86(21.5%) had very strict parents. In the study, parental strictness was related with teenage girls' freedom to engage in sex. Furthermore, majority, 312(78%), of the teenagers indicated their religious affiliations did not support sex before marriage while 59(14.8%) said they supported. Most religions teach that sex is for procreation in the context of marriage. The key informants affirmed that sex before marriage was not allowed; however, teenagers often found ways to engage in pre-marital sex. According to the KIIs, teenagers hardly adhere to religious and societal norms on the value of sexual purity and chastity. One of the informants had this to say:

"It is not allowed yes but teenagers are stubborn. They have believed that sex is something normal" (CHV Butere, KII, 2024).

Concerning parents' reaction to their teen daughters' pregnancy, most, 319(82.4%), of the respondents revealed that parents often showed sadness and disappointment, 68(17.6%) were happy. Meanwhile, 315(81.4%) said their siblings were sad about pregnancy while 72(18.6%) said they were happy. The reactions of family members to a teen girl's pregnancy are important as it shapes the extent of the stigma that the teenager experiences due to pregnancy.

Other cultural factors mentioned by the KIIs as predictors of teen pregnancy included *disco matanga* (funeral parties or disco) and polygamous marriages. According to the KIIs, despite the banning of *disco matanga* in Kakamega County, some communities still practice it silently and teenagers like such night activities. One of the CHVs described what is happening in her community as follows:

"Disco matanga is one of the factors. It's so common in Kakamega. The people here prolong mourning period and during disco matanga, young girls and boys engage in sexual activities" (CHV, KII, 2024).

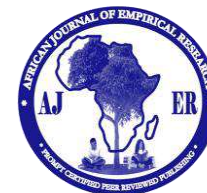
It was pointed out that polygamy is considered normal mostly among those who have enough resources like *shamba* (land). The KIIs noted that polygamy makes it difficult for fathers to be close to their children from both families hence the mother takes much of the responsibility of child upbringing. They further argued that raising a girl-child was the responsibility of both parents, and, often, single mothers struggle to raise their children where the father is not taking responsibility. One of the respondents explained thus:

"Since the availability of the other parent is irregular, teenagers of polygamous family might lack parental teachings on good morals and teenage girls mostly don't listen to their mothers. It's the fathers who can control them and guide them accordingly" (Children Officer, KII, 2024).

More details on descriptive statistics for cultural characteristics of teenagers are summarized in Table 1 below.

Table 1
Cultural characteristics of teenagers

| Cultural Characteristics | Categories | Frequency | Percentage (%) |
|-------------------------------------|-----------------------|-----------|----------------|
| Sex discussion with parents (N=401) | Yes | 97 | 24.2 |
| | No | 304 | 75.8 |
| Contraceptive use (N=394) | Yes | 165 | 41.9 |
| | No | 229 | 58.1 |
| Marital status (N=400) | Yes | 107 | 26.8 |
| | No | 293 | 73.3 |
| Contraceptive non-use reason | Infrequent Sex | 59 | 27.6 |
| | Not sexually Active | 96 | 44.7 |
| | Religious Prohibition | 59 | 27.6 |
| Decision-maker of marriage (N= 104) | Boyfriend | 38 | 36.5 |
| | Myself | 53 | 51.0 |
| | Parents | 13 | 12.5 |



| | | | |
|--|-------------|-----|------|
| Sex discussion in the community (N=398) | Allowed | 168 | 42.2 |
| | Not allowed | 230 | 57.8 |
| Parental strictness (N=400) | Not strict | 219 | 54.8 |
| | Strict | 95 | 23.8 |
| | Very strict | 86 | 21.5 |
| Religious sex support before married (N=400) | Yes | 59 | 14.8 |
| | No | 312 | 78.0 |
| | Not sure | 29 | 7.3 |
| Parents reaction towards pregnancy (N=387) | Happy | 68 | 17.6 |
| | Sad | 319 | 82.4 |
| Siblings reaction towards pregnancy (N=387) | Happy | 72 | 18.6 |
| | Sad | 315 | 81.4 |

As shown in Table 1 above, most of the teens, 304(75.8%), never held sex discussions with their parents. Additionally, in the view of most teenagers, 219(54.8%), parents were not strict on teen behaviours. Interestingly, sex discussion in the community was also mostly not allowed, according to majority of the teenagers, 230(57.8%). Additionally, a majority of them, 229(58.1%), never used contraceptives. On the reason for non-use of contraceptives, a significant number of the teens, 96(44.7%), said they were not sexually active. However, many, 59(27.5%), cited infrequent sex and religious prohibition on contraceptive use. Most religious groups also did not support sex before marriage, based on the majority, 12(78.0%), of the teenagers who affirmed this view. It was encouraging to note that teen marriages were low, as only 107(26.8%), of the teens were married. Among those who were married, over half, 53(51.0%), said they made most of the household decisions. For teens who got pregnant, the reactions of the parents (82.4%) and siblings (81.4%) was mostly sad. These findings show that various cultural factors shape teen pregnancy prevalence, ranging from failure to discuss sex at home and in the community, parental laxity on youth behaviour and low use of contraceptives.

The respondents were further asked to indicate their ages at first sex. Majority (85%) of the teenage girls who had first sex at 17 years were pregnant followed by those who had first sex at 18 years (83%). On the other hand, 75% of those who had first sex at the age of ten were pregnant and 74% of those who had first sex at age 19 were pregnant. Among those who had their first sex at age 9, none of them was pregnant and 92% of those who had first sex at age 14 were not pregnant as illustrated in Figure 1 below.

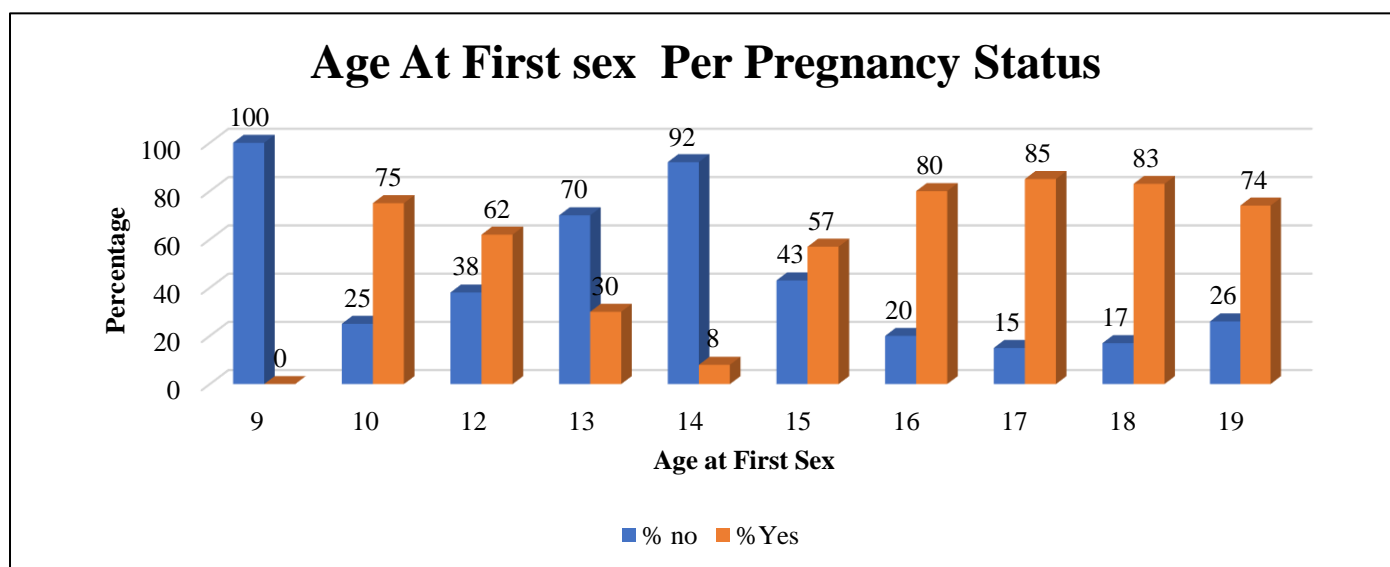


Figure 1
Age at First Sex

4.3 Association between Cultural Factors and Teen Pregnancy Prevalence

Chi-square test of association was done to determine association between cultural factors and teen pregnancy prevalence in the study area.



Table 2
Chi-Square Table Showing Association between Cultural Factors and Teen Pregnancy Prevalence

| Factor | Responses | Pregnant/Teen Mother | | Chi-square | P-value |
|---------------------------------------|-------------|----------------------|-------------|------------|---------|
| | | Yes N (%) | No N (%) | | |
| Sex discussion with parents | Yes | 40(41.2) | 191(63.5) | 14.87 | <0.001 |
| | No | 57(58.8) | 110(36.5) | | |
| Contraceptive use | Yes | 135(83.3) | 27(16.7) | 68.60 | <0.001 |
| | No | 95(41.5) | 134(58.5) | | |
| Marital status | Yes | 85(81.7) | 19(18.3) | 32.12 | <0.001 |
| | No | 146(49.8) | 147(50.2) | | |
| Decision maker of marriage | Boyfriend | 27(71.1) | 11(29.0) | 6.01 | 0.050 |
| | Myself | 45(90) | 5(10.0) | | |
| | Parents | 9(69.2) | 4(30.77) | | |
| Sex discussion in the community | Allowed | 148(88.1) | 20(11.9) | 108.86 | <0.001 |
| | Not allowed | 81(35.7) | 146(64.3) | | |
| Parent strictness | Not strict | 168(76.7) | 51(23.3) | 93.78 | <0.001 |
| | Strict | 50(52.6) | 45(47.4) | | |
| | Very strict | 13(15.7) | 70(84.3) | | |
| Religious sex support before marriage | Yes | 43(72.9) | 16(27.1) | 8.80 | 0.012 |
| | No | 176(57.0) | 133(43.0) | | |
| | Not sure | 12(41.4) | 17(58.6) | | |
| Parents reaction towards pregnancy | Happy | 43(63.2) | 25(36.8) | 0.38 | 0.536 |
| | Sad | 187(59.2) | 129(40.8) | | |
| Siblings reaction towards pregnancy | Happy | 50(69.4) | 22(30.56) | 3.36 | 0.067 |
| | Sad | 180(57.7) | 132(42.3) | | |

The findings in Table 2 show that 63.5% of those who had had sex discussions with their parents were neither pregnant nor teen mothers while 58.8% of those who had never had sex discussions with their parents were pregnant/teen mothers. Interestingly, 83.3% of those who used contraceptives were pregnant. This begs the question on the nature and effectiveness of contraceptives used by these teenagers. Those who did not use any contraceptives and were neither pregnant nor teen mothers were 58.5%. Sex discussions with parents and contraceptive use were associated with teen pregnancy since the p-value was less than 0.05 ($\chi^2=14.87$; $P<0.001$; $\chi^2=68.60$; $P<0.001$).

Additionally, majority (81.7%) of those who were married were teen pregnant/teen mothers while some (18.3%) were not. Moreover, 50.2% of those who were not married were not pregnant, 49.8% were pregnant/teen mothers. Therefore, being married was a strong factor influencing teen pregnancy prevalence in the study area. There was a significant association between marital status and teen pregnancy with p-value less than 0.05 ($\chi^2 = 32.12$; $P<0.001$). Majority (90%) of those who were pregnant/teen mothers made the decisions on marriage by themselves followed by those for whom boyfriends decided (71.1%). Few (69.2%) of those whose parents made decisions on marriage were pregnant/teen mothers. Among those for whom parents made marriage decisions, 30.77% were not pregnant followed by those for whom boyfriends made the decision (29.0%). As such, deciding to get married also increased the chances of teenagers getting pregnant. Sex discussions at community level was found to be associated with teen pregnancy. Majority (88.1%) of those who said it was allowed were teen pregnant while 35.7% said it was not allowed. On the other hand, 64.3% of those who said it was not allowed were neither teen pregnant nor teen mothers while 11.9% were. Clearly, allowing sex discussions at community level reduces the prevalence of teenage pregnancy. Decision-maker of the marriage and sex discussion in the community had a p-value of less than 0.05, hence significantly associated with teen pregnancy ($\chi^2=6.01$; $P=0.05$); ($\chi^2=108.86$; $P<0.001$).

Relatively, parental strictness was observed to be significantly associated with teen pregnancy, as 84.3% of those with very strict parents were not pregnant while 76.7% of those who had non-strict parents were pregnant/teen mothers. On the other hand, 52.6% of those who had strict parents were pregnant/teen mothers while a few (15.7%) of those who had very strict parents were pregnant/teen mothers ($\chi^2=93.78$; $P<0.001$). Religious sex support before marriage was asked among respondents and 72.9% of those who said they support were pregnant/teen mother while 58.6% of those who were not pregnant were not sure. On the other hand, 57% of those who said it was not allowed were pregnant while 43% were not. Religious sex support before marriage had a p-value of less than 0.05 hence statistically significantly associated with teen pregnancy prevalence ($\chi^2=8.80$; $P=0.012$). The reactions of both

parents and siblings towards pregnancy were not significantly associated with teen pregnancy. Table 2 below summarizes the above findings

4.4 Multiple Logistic Regression on Effects of Cultural Factors on Teen Pregnancy Prevalence

Multiple Logistic regression with robust standard errors was fitted to determine cultural factors that strongly affected teen pregnancy. Odds Ratio, p-values and 95% confidence intervals were tabulated. A factor was said to be significant contributing factor if it had a p-value less than 0.05. Teenagers who had sex discussion with their parents were 54.6% less likely to be pregnant as compared to those who never had discussion with their parents on sex (OR=0.454, CI= 0.212-0.975). Contraceptive use had effect on teen pregnancy such that those who used contraceptives were 5 times more likely to be pregnant as compared to those who did not (OR=5.373, CI=2.876-10.039). The study also found that respondents who said sex discussion was allowed in the community were 18 times more likely to be pregnant as compared to those who said it was not allowed (OR=18.111, CI=8.393-39.077). Teenagers who had very strict parents were 86.2% less likely to get pregnant as compared to those who had non-strict parents (OR=0.138, CI=0.065-0.293).

Table 3

Multiple Logistic Regression on Effects of Cultural Factors on Teen Pregnancy Prevalence

| Factor | OR | P-value | Lower 95%CI | Upper 95%CI |
|---|--------|---------|-------------|-------------|
| Sex Discussion with parents (N=401) | | | | |
| Yes | 0.454 | 0.043 | 0.212 | 0.975 |
| No | Ref | | | |
| Contraceptive Use (N=394) | | | | |
| Yes | 5.373 | <0.001 | 2.876 | 10.039 |
| No | Ref | | | |
| Sex discussion in the community (N=398) | | | | |
| Allowed | 18.111 | <0.001 | 8.393 | 39.077 |
| Not allowed | Ref | | | |
| Parent strictness (N=400) | | | | |
| Not strict | Ref | | | |
| Strict | 0.575 | 0.094 | 0.301 | 1.099 |
| Very strict | 0.138 | <0.001 | 0.065 | 0.293 |
| Religious sex support before Marriage (N=400) | | | | |
| No | Ref | | | |
| Not sure | 0.940 | 0.911 | 0.320 | 2.760 |
| Yes | 1.192 | 0.677 | 0.520 | 2.733 |

Table 3 presents the results on the strength of association between cultural factors and teen pregnancy prevalence. The P-value determined was <0.001, (P<0.05), which was significant. Therefore, it was concluded that there is significant effect of cultural factors on teen pregnancy prevalence in Kakamega county Kenya.

4.5 Discussions

With regard to cultural factors and teen pregnancy prevalence, the study found that majority of those who did not have sex discussion with their parents were pregnant or teen mothers. The same was depicted in a study on determinants of teen pregnancy in the sub-Saharan Africa, which found that lack of parental counselling and guidance was a risk factor for teen pregnancies (Yakubu & Salisu, 2018a). Communicating with their teenagers enables parents to address challenges that teenagers face. On their part, teenagers opening up to their parents on their day-to-day experience helps to reduce teen pregnancy. This is in line with Symbolic Interaction Theory, which explains the concept of 'looking-glass self' as developed by Charles Horton. The concept explains that individuals think about themselves when they interact. Therefore, interacting with parents helps them to think about their future, hence avoid risks of getting pregnant.

Contraceptive use was negatively associated with teen pregnancy, so that most of those who used contraceptives were pregnant or teen mothers. This was attributed to improper use of contraceptives due to lack of knowledge. Among the reasons that teenagers gave for non-use of contraceptives were religious prohibitions, sexual inactiveness and not having regular sex with boyfriends. Relating to Sexual Script Theory, Ross-Bailey et al. (2014)

state that women may abide by the sexual script that women must maintain a feminine role by being submissive to male partners. As such, women lack the assertiveness and skills needed to initiate purchase and use of condoms and other contraceptives. The sexual script that men should be responsible for providing condoms during sex reigns prominent in heterosexual encounters. Girls who believe this sexual script are unlikely to carry condoms and are at greater risk of teen pregnancy and STIs (Ross-Bailey et al., 2014). This finding was slightly different from Thobejane's (2015) that found that about 80% stated they have been using contraceptive (condoms) to prevent pregnancy but they did not continue with this practice because of peer pressure.

Those who were married at younger age were at higher risk of teen pregnancy. This is because they cannot practice safer sex with their husbands making them more susceptible to sexually transmitted infections including HIV and putting them at higher risk of early pregnancy (Parsons et al., 2015). This finding was in line with a study that established that religion and early marriages contribute to high reports of teen pregnancies (Yakubu & Salisu, 2018a). Sex discussions at community level were not allowed as stated by many. This was contrary to a study done by Zulu et al. (2022), which found that guardians or parents perceived community dialogue to be relevant approach for addressing social and cultural norms regarding early pregnancy, marriage and school dropout. Marital status and sex discussion findings mimicked the postulates of Sexual Script Theory, which explains the social scripts like culture, religion and social positions. Early marriages are perpetuated by community edicts and perception of early marriages. Communities that allows early marriages exposes teenagers to teen pregnancy. On the other hand, interpersonal script which varies between groups according to subculture social network and interaction limits sex discussion within community which could be a source of education on sexual reproductive health among teenagers.

Parental strictness was associated with teen pregnancy such that majority of those who were pregnant or teen mothers had non-strict parents. This is more or less the same with a study by Nabakooza (2022) who did Chi-square test to ascertain parental influence on teen pregnancy and found that parents have a considered authority over teen related pregnancies. This implies that parents play a key role in preventing teen pregnancies.

Religious sex support before marriage played a crucial role in encouraging teen pregnancy. Majority of those for whom their religion allowed sex before marriage were pregnant or teen mothers. This was consistent with findings from which found that Religion and early marriages were contributing factors to high rates of teen pregnancies (Yakubu & Salisu, 2018b). The same was seen in a study done in Zambia, which found that pregnant young women were not judged for not respecting the religion or for having committed a sin, but for the burden they put on their families and the consequences in terms of discontinued education and future possibilities. The absence of moral condemnation may be seen in the light of a pragmatic relationship to religious teaching (Svanemyr, 2020).

The cultural phenomenon of *disco matanga* is a funeral activity practiced in Kakamega County. It is a conventional move held after the death of a member of the community. Teen pregnancy is greatly linked to this night activity. The same was depicted in a study done in Kenya by Wamalwa (2019) who found that in *disco matanga* dances are held around areas where it is simple for teenagers to stow away and engage in sexual relations that are mostly unprotected. Looking at religious sex support before marriage and *disco matanga* as factors influencing teen pregnancy prevalence, Simon and Gagnon (1986) from Sexual Script Theory explain the social context whereby communities use scripts to explain context of events. These scripts vary by culture and by individual such that people within a specific culture should have access to scripts that are reasonably similar. Relating it to this finding, communities in Kakamega County uphold the *disco matanga* culture because it is in their social scripts. Religions have less power in controlling teenagers from engaging in sex before marriage because of similar scripts of normalizing sex before marriage. They do not encourage teenagers to avoid sex before marriage; neither is there any form of punishment for teen sex. This has encouraged teen pregnancy prevalence greatly.

Polygamy was also associated with teen pregnancy prevalence in this study. The same has been reported in a study done in Nigeria, which found that the proportion of teen pregnancy was higher among teenagers from polygamous families than those from monogamous families. This is explained by the fact that large families may lack parental guidance (Envuladu et al., 2014).

Overall, despite the negative effects that certain cultural beliefs and practices have on teen pregnancy, communities still uphold these cultures because they are part of their social script. Parents still find it difficult to have sex discussions with their children because of shame. This means there is still a gap in parental child communication on sexual and reproductive health. Parents are too soft on their children; they allow them much freedom to do as they please, including attending *disco matanga* events and cavorting with ill-mannered friends. Communities have as well normalized teen pregnancy, which is quite alarming, and a setback in achieving sustainable development goals on education and health. On its part, the government has not fully enforced its ban on retrogressive cultural factors such as *disco matanga*.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

Parents still find it shameful or uncomfortable to discuss sex with their children. There is a significant association between sex discussion with parents and teen pregnancy with majority of those teens who never have sex discussion with their parents being at risk of pregnancy. Lack of such parental conversations and guidance promote risky sexual behaviours. Teen marriages has been largely normalized. Teen marriage and laissez faire parenting are key contributors to teen pregnancy. Married teens cannot practice safe sex. Teens enjoy much freedom of unsupervised movement and mingling exposing them to risky sex behaviour.

Religion has also failed to inculcate and enforce virtues on teens, such as prohibition of sex outside marriage. This has contributed to high rate of teen pregnancy. There is a dominant culture called *disco matanga* that promotes risky sexual behaviour and potential for teen pregnancy. Despite the banning of it, people still practice it silently. Since it is a night activity involving dancing and other activities, the environment is favourable to teens to engage in sexual activities and others are raped hence teen pregnancy. Polygamy is another cultural factor which contributes to teen pregnancy prevalence. Coming from polygamous family increases the odds of teenager being pregnant due to lack of parental guidance.

5.2 Recommendations

Parents should never be ashamed to have sexual discussion with their children. This can be achieved by parents having good relationship and friendly environment with their children, which makes them to open up. Communities should stand tall in rebuking early marriages and *disco matanga*. This will help the teenagers from falling in the pit of teen pregnancy as a result of early marriages and sexual activities during *disco matanga*. Religions should teach teenagers that sex is sacred and is only meant for married couples hence they should abstain until marriage. Parents should be strict but friendly so that their children grow morally upright. Since polygamy might be inevitable, parents should balance their responsibilities to their children.

The Ministry of Health Services should strengthen education on teen pregnancy and sexual Reproductive health in various sub-counties in Kakamega County through the sub-county in-charge of teen and young people and community health assistants. Similarly, the Ministry of Interior and National Coordination should completely ban *disco matanga* and take serious measures on those who break the law. This will limit teenagers from engaging in sexual activities by taking advantage of these activities. Government should also take into consideration the effect of religion on policies to combat teen pregnancies.

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