Contributions of School-Based Ecological Transformative Social Change Strategies to the Management of Teenage Pregnancies in Mombasa County

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ABSTRACT

The purpose of this study was to assess the contribution of school-based ecological transformative social change strategies to the management of teenage pregnancy with reference to Mombasa County, Kenya. The study focused on seven public girls' secondary schools in Mombasa County, targeting Form 3 students, principals, guidance and counseling teachers, religious leaders, and government officials. Using a sample size formula, 402 participants were selected, considering attrition. Simple random and purposive sampling were employed. Data were collected through questionnaires, interviews, and Focus Group Discussions, analyzed using SPSS for quantitative data and thematic analysis for qualitative data. The findings were presented through tables and figures, drawing conclusions from the results. The study aimed to understand and address factors influencing teenage pregnancy in Mombasa County. The findings show that the issue of teen pregnancy is of great concern in the county of Mombasa. This is evidenced by the high rate of school dropout among girls who got pregnant, early motherhood, transmission of venereal diseases, cases of abortion and death after abortion in some cases. Pearson correlation shows that school-based interventions (r=0.063, p>.05) did not have significant effects on the management of teenage pregnancy. Consequently, there is need to put measures in place aimed at checking teenage pregnancies and their associated consequences such as abortions, girls dropping out of school as well as early marriages among others.

Keywords: *Contributions, Ecological Transformative, Mombasa County, School-Based Strategies, Teenage Pregnancies*

I. INTRODUCTION

Teenage pregnancy is a global problem and remains a worldwide social and educational concern for developed, developing, and underdeveloped countries. It thus warrants ecological transformative social change. The World Health Organization (WHO, 2018), points out that an estimated 16 million adolescent girls (15-19 years) give birth annually. Most of these come from developing countries (Santelli, Song, Garbers, Sharma, & Viner, 2017). Many countries continue to experience a high incidence of teenage pregnancy despite the intervention strategies that have been put in place. In 2017, there were 194,377 babies born to women aged 15-19 years in 2017 in the United States of America (USA) (Martin, Hamilton, & Osterman, 2018). A report by The United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2017) shows that teenage pregnancy and complications associated with childbirth are the second main causes of death among teenage girls aged 15 to 19 years leading to death of approximately 70,000 girls per year. This calls for ecological transformative social change to strength the strategies put in place aimed at curbing teenage pregnancy and the associated consequences.

In Vietnam, a study by Nguyen, Shiu, and Farber (2016) found out that teenage pregnancy was a major challenge facing the education sector. Based on Assessment of Vietnamese Youth surveys conducted in 2003 and 2008 the three established that the prevalence of pregnancy among Vietnamese teenagers was stable at 4% for girls aged between 14 and 19. This translates to 40 pregnancies for every 1,000 teenage girls. Transforming the education sector to have more responsive programs for the reduction of teenage pregnancy was proffered as a tenable solution in the Asian Pacific country.

A report by the United Nations International Children's Emergency Fund (UNICEF) as cited in Kirchengast (2016) points out that 20% of neonates are born by adolescent mothers. Most of these births take place in third-world countries. These findings are corroborated by a study focused on the African continent by Kassa, Arowojolu, and Odukogbe (2018) that investigated the prevalence and determinants of adolescent pregnancy. Based on the systematic

review and meta-analysis of existing literature, the study shows that the prevalence of teenage pregnancy on the continent stood at 18.8%. It was highest in East Africa (21.5%) and lowest in North Africa (9.2%). This came with adverse maternal and prenatal outcomes. The main predictors of high levels of teenage pregnancy were illiteracy rates, rural residence, early marriages, and poor parental guidance on sexual and reproductive health issues. This underlines the pertinence of ecological transformative social change to strengthen societal bulwarks against teenage pregnancy.

In Ethiopia, a study by Habitu, Yalew, and Bisetegn (2018) assessed the prevalence and factors associated with teenage pregnancy in Wogedi, Northeast Ethiopia. Focused on 514 teenagers, the cross-sectional study shows that teenage pregnancy was a major challenge facing teenagers in the country. Standing at 28.6% of teenage pregnancy had poor maternal and perinatal health outcomes on the teenagers studied. The study called for concerted efforts to address it at its roots. In this regard, the study called for ecological transformative social change in the way the community managed teenage pregnancy. It calls for communities to use the participatory way to deal with the issue. Moreover, citizens should be psycho-educated on the risk of teenage pregnancy. This study sets out to establish the veracity of these findings in Kenya.

Elsewhere in Africa, a study by Wado, Sully, and Mumah (2019) shows that adolescent pregnancy was a common challenge in three Eastern and South African countries. It ranged from 18% in Kenya in 2014 to 29% in Malawi and Zambia in 2016 and 2014 respectively. The main factors predisposing these teenagers to pregnancy were exposure to media, levels of education, household poverty level, age at first sex and, family structure. Ecological transformative social change among families was proposed to enhance support for the girl child from a tender age in order to reduce teenage pregnancy.

In Kenya, teenage pregnancy is a major challenge facing learning processes. A UNFP report 2016 as cited by Nyagah (2018) on adolescent and teenage pregnancies in Kenya shows 378,397 girls aged 10 to 19 got pregnant between July 2016 and June 2018. Some 28,932 girls aged 10-14 got pregnant, the same as 349,465 age 15-19. Of the 47 counties, Narok had the highest rate of teenage pregnancies at 40 per cent, followed by Homa Bay (33) and Tana River (28). However, the efficacy of the strategies aimed at checking teenage pregnancy in selected parts of Kenya such as the coastal region has not been systematically studied. The region is characterised by booming sex tourism. This leads to the initiation of young girls into prostitution which often results in high levels of teenage pregnancy. Ecological transformative social change at community levels is thus pivotal in checking the involvement of girls in prostitution. National Council for Population and Development (NCPD, 2013) as cited by Awuor (2018) reported that the coast region, including Mombasa, had the second highest level of teenage pregnancy in Kenya at 25.7% after Nyanza region at 27% (Awuor, 2018).

Statistics from the Global Childhood statistics for 2019 as cited by Muturi (2020) in "*Teenage Pregnancy in Kenya: Gloom and Doom in Education, Health*" shows that Kenya has the third-highest teen pregnancy rates. There were at least 82 births per 1,000 births in the country. In a report by the United Nations Population Fund, Kenya had a record of 378, 397 adolescent and teenage pregnancies between July 2016 and June 2017 for girls aged between 10 and 19 years. A breakdown of these statistics shows that 28, 932 of these girls were aged between 10 and 14. Conversely, 349,465 girls were aged between 15-19 years (Muturi, 2020). Ecological transformative social change to curb teenage pregnancy was thus needed to strengthen strategies aimed at curbing teenage pregnancy in the context of the girls.

Omoro *et al.* (2018) studied teenage pregnancy in rural western Kenya as a public health issue. The sampling survey frame was provided by the KEMRI Health and Demographic Surveillance System and focused on analysing 1,952 girls aged 13 to 19 years. The indicators are that 37.2% (n=727) are sexually active and 23.3% had ever been pregnant. The findings after adjusted odds of pregnancy reported are that the factors leading to these pregnancies are that older teens had higher rates of pregnancies as compared to younger teens, early marriages and cohabitation, low education levels, and violence by partner. It is thus important to find out the level to which this norm could be changed through ecological transformative social change.

In the backdrop of high levels of teenage pregnancy, various strategies and policies have been put in place to reign in these high levels teenage pregnancy. Most of these strategies are put in place in the ecology of these teenagers to control such pregnancies. In this study, the ecology entails the environment of an adolescent (Steinberg, 2004). This study focuses on school-based social transformation efforts. It hypothesizes that school-based ecological transformative social change in the ecology of these girls could strengthen the management of teenage pregnancy at these levels.

1.1 Problem Statement

In most cases, adolescents are exposed to immense social problems. These social problems such as risky sexual behaviour pose serious health issues that warrant special attention (Kauppi, 2015). Theorists such as Bronfenbrenner (1993) posit that the ecology in which an adolescent grows will affect his/her behaviour. The Coastal region, where Mombasa County is located, has had some of the highest levels of teenage pregnancy in Kenya in the last two decades. Most of the teenage mothers in the county drop out of school; which has adverse effects of their schooling (Onjoro, Thinguri, Githui, & Wilson, 2014). This calls for ecological transformative social change to change this situation.

The 2008/9 Kenya Demographic and Health Survey (KDHS) as cited by Marline shows that 25.7% of teenagers aged 15-19 had begun childbearing. Compared to only 10% in the central region of Kenya, this points a grim picture for girls in the region (Marline, 2012). A related study by Shiateya on the determinants of teenage fertility in coastal Kenya with reference to Mombasa County shows that in a sample of 165 adolescent girls aged between 15 and 19 years, the mean interval of sexual debut was 15 years (Shiateya, 2016). At the same time, 43% of them had already started bearing children. These findings show significant departure from a KDHS report (Kenya National Bureau of Statistics & ICF International, 2016) that put 6 other counties higher at 25-40% in 2014. At the same time, the KDHS report estimated the level of teenage pregnancy in the coast region between 20 and 24%. However, the 2014 KDHS report sums up findings from Mombasa, Kwale and Kilifi and may not depict the real picture in Mombasa. This means that problem of teenage pregnancy in the county is often underestimated; calling for more focused studies.

The gravity of teenage pregnancy in Mombasa County was reiterated by a report by National Council for Population and Development that shows that in addition to STIs, Drug and Substance Abuse, teenage Pregnancy was one of the major health issues facing young people in the county (NCPD, 2017). The region is also characterised by booming sex tourism; which was liked by a study by Njoka to teenage pregnancy in the coastal region (Njoka, 2016). This leads to the initiation of young girls into prostitution which often results in high levels of teenage pregnancy. Regrettably, most teenagers in county were averse to using condoms during sex and saw it as a sign of mistrust (Kenya National Bureau of Statistics & ICF International, 2016). This puts to question the efficacy of interventions on safe sex practices in the ecology of the teenagers.

Ecological transformative social change at the school could affect the propensity of an adolescent to get into risky sexual behaviours. This is particularly so since interventions at thislevels could reign in on the problem, checking teenage pregnancy in the process. However, the efficacy of the strategies aimed at checking teenage pregnancy in Mombasa County has not been systematically studied. Each of the studies on the impact of ecological interventions aimed at stemming in on teenage pregnancy has not been holistic hence making it difficult to make conclusive recommendations. Without studies such as this one thus, it may be untenable to gain an understanding of how to reign in on teenage pregnancy in the region.

1.2 Research Objective

To assess the school-based ecological transformative social change strategies in management of teenage pregnancy with reference to Mombasa County, Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Framework

Ecological Systems Theory (EST) was advanced by Bronfenbrenner (1979). In the work titled, "the Ecology of Human Development (1979), he argues that "the properties of the person and of the environment, the structure of the developmental settings, and the processes that take place within and between them must be viewed as interdependent and analysed in systems terms".

Bronfenbrenner (1979; 1993) shows five systems that influence the development of a person. These include the microsystem where by the person is exposed to a pattern of activities, roles and interpersonal relations in one-on-one setting. These include home and school. The second system is the mesosystem. This incorporates linkages occurring between numerous settings where the developing person is located such as home and school.

The third system is the ecosystem. This includes one or more settings that do not involve the developing person as an active participant. In these settings, events occur that affect, or are affected by, what happens in the

setting containing the developing person. These could be the parental workplace whereby an individual can be affected by the context in which the parent works through acquired values among others.

The last system is the macrosystem. This includes influences from culture, subculture and other extended social structure" (Bronfenbrenner, 1993). The last system is the chronosystem. In this one, the development of a person is affected by affected over time by numerous influences that occur at school, home or in the country at large.

The critiques of this theory posit that the person has to remain in the ecology continuously so as to be influenced by all the systems effectively. If the person relocates to a faraway place or another country, the systems change; leading to different development patterns (Feldman, 2003).

In this current study, EST is relevant since the ecology in which an adolescent grows will affect his/her behaviour. This includes school, home, community, religious organizations and national policies among others. Ecological transformative social change to strengthen interventions at these levels could go on to determine the level to which teenage pregnancy is managed.

2.2 Empirical Review

Marseille et al. (2018) conducted a systematic review and meta-analysis to assess the effectiveness of school-based programs in preventing youth pregnancy in the USA. Data for this study was obtained through the evaluation of eligible studies published between January 1985 and September 2016 on how the programs delivered to students in elementary, middle and high schools in Canada and USA affected pregnancy rates. The study concludes that the rates of pregnancies were not affected by the interventions put in place by the governments and other stakeholders.

A similar study on Ecological Approaches to Teen Pregnancy Prevention: An Examination of Evidence-Based Interventions by Garney et al. (2018) focused on the various teen pregnancy prevention (TPP) programs and evidence-based interventions (EBIs) that have been put in place to reduce the teen pregnancy menace. In this study conducted in April 2017, the EBIs in TPP were reviewed through examining the socio-ecological level of intervention and the measurement approaches of each program. This study suggests that the future of TP approaches should include multiple levels of social ecology, that all changes within the different levels are measured accurately and that these approaches should involve the long-term improvement of the health of all people.

Stoner et al. (2019) conducted a study titled 'The Relationship between School Dropout and Pregnancy among Adolescent Girls and Young Women in South Africa: A HPTN 068 Analysis.' This study provides a background that in South Africa which has a high prevalence of teenage pregnancies and school dropouts, public health should prioritize efforts to end the two although this has not been the case. This study aims at providing an understanding of how these two are related and how their relationship works through analysing data drawn from a randomized trial of young women aged 13 to 20 years in rural South African schools. This was achieved through examining inverse probability (IP) of exposure-weighted survival curves for pregnancy by school dropout and vice versa. Weighted curves were used to calculate 1, 2 and 3-year risk ratios and differences. The hazard ratio (HR) for each relationship was measured using an IP-weighted marginal structural cox model. The results indicate that school dropout had an association with subsequent pregnancy and pregnancy had an association to school dropout. This means that pregnancy acts as a cause and consequence of school dropout and factors such as school attendance and academic performance could be used to enhance pregnancy prevention.

A related study by Tesema, Tamirat and Tadele (2020) on Sexual behaviours and its association with life skills among school adolescents of Mettu town, South West Ethiopia: A school-based cross-sectional study focused on determining the association of life skills with sexual behaviour among school-based adolescents aged 15-19 years in Mettu town, South West Ethiopia. Data was collected through a pretested self-administered questionnaire in a school-based cross-sectional study in a population of 372 adolescent school children from 15 to 25 April 2016. The results show that ninety-one (24.5%) adolescents were sexually active out of which 19.1% engaged in risky sexual behaviours and that the factors of social, coping with emotions and cognitive had a correlation with risky sexual behaviours. This was arrived at after controlling for cofounders which included abuse of psychoactive substances and living in rented houses in urban centres. This study suggests that adolescents should be aided in the development of life skills in school so that they may be able to make reasonable and intentional choices sexually, which in turn lead to fewer unwanted pregnancies, lowers the risk of sexually transmitted infections (STIs) and stronger relationships.

The importance of school-based interventions in mitigating teenage pregnancy was also studied by Kangwana, Muthengi and Austrian (2020). The sought to do an evaluation of the extent school girls are conversant with these key competencies and their variations across grades. The study area was three sub-counties in Kilifi County, Kenya where

data was collected through interviews from 3,489 adolescent girls drawn from 140 public primary schools from grade 7. The results show that girls in higher age groups were more likely to have higher education aspirations as compared to those in lower age groups, had poor confidence in taking part in class activities, had low scores on their cognitive, math and literacy tests, had less positive gender norms and were conversant with intimate partner violence. These girls also had better decision-making skills and knowledge on contraceptives. This study observes that grade is a determinant of variability in age, meaning that younger girls were likely to have better performances in education and socially. To address the varying needs within a grade, countries with large ranges per grade should identify the presence of educational and psychological competency variations so as to make better decisions on school-based interventions.

III. RESEARCH METHODS

3.1 Research Strategy and Techniques

The study will adopt the descriptive survey and cross-sectional study designs. In this design, the researcher collects data through interviewing or administering questionnaires to sample of individuals. The design has an interesting attribute in that the relationship between variables is described. Thereafter, generalization principles and/or theory that have universal validity are developed (Khan, 1993). In assessing the contribution of ecological transformative social change strategies to the management of teenage pregnancies in Mombasa County, this is deemed a suitable design. The design is also cross-sectional because it is a point in time study (2021). Data will be collected using questionnaires, interview and Focus Group Discussion (FGDs).

3.2 Data Sources

The study was based on primary data sources. This section presented the target population, sample and sampling procedure as well research instruments (tools).

3.3 Target Population

There are 7 public girls' secondary schools in Mombasa County as reported by the County Ministry of Education. The study shall target principals, guidance and counselling teachers and students from these schools. There are 15,676 girls in these schools. Only Form 3 students (which number 3,801) will be targeted (Ministry of Education Mombasa County, 2021). This is for purposes of narrowing down the study in scope. Furthermore, these students are targeted because by the time they reach this class, they are able to understand the factors influencing their behaviour considerably. This is in line with a 2015 study by Kiarie that show that students in Form 3 and 4 are better suited to understand the factors influencing teenage pregnancy in public schools since they have stayed in their respective schools longest and have a wealth of information from their experiences (Kiarie, 2015). This study did not focus on Form 4 students who are often busy preparing for national examinations. At the same time, the study targets the 7 principals and the 15 guidance and counselling teachers from the 7 public girls' secondary schools. At the same time 30 senior religious leaders from the County will be targeted. Additionally, 8 Ministry of Education Science and Technology (MoEST) officials will be targeted. These include 3 from the national and 5 the county governments respectively.

3.4 Sample Size and Sampling Technique

The study shall use the following formula put for obtaining the girls' sample size (Khuanbai, 2019). The formula is:

$$n = z^2 * \frac{p(1-p)}{e^2}$$

Where:

z = z score, ε = margin of error, N = population size, p = population proportion

When the formula is fitted to the population of form three girls, a sample of 349 will be obtained. On their part, all the 7 principals, 15 guidance and counselling teachers, 8 government officials and 30 religious leaders will be

sampled. To deal with attrition, the study will include 5 more guidance and counselling teachers, 50 more girls and 5 more religious leaders. The sample size is presented in Table 1:

Table 1
Sample Size

Category	N	n
Girls	3,801	349
Guidance Counseling Teachers	15	15
Religious Leaders	30	30
MOeST Officials	8	8
Total	**3,861**	**402**
Attrition		
Girls		50
Teachers		5
Religious leaders		5
Total		**60**
Grand Total		**462**

The study used the simple random sampling to select students from each school. Purposive sampling shall be used to select principals and a guidance and counselling teacher from each of the 7 public secondary schools. These are selected as the key informants due to their role in offering guidance and counselling services to girls in the schools. In addition, all the MOeST officials and religious leaders will also be purposively sampled.

3.5 Research Instruments

The study will use questionnaires, interviews guides and Focus Group Discussion (FGD) guides as data collection tools. The questionnaires shall be used to collect data from students while the interviews shall be carried out on the guidance and counselling teachers, principals and MoEST officials. On their part, religious leaders will take part in 3 FGDs. Each FGD will comprise 10 to 11 persons. The questionnaire will have closed-ended questions on the respondents' demographic information and likert-type statements for the purpose of capturing relevant and important information for the study based on the study variables and the gaps arising from the literature reviewed. The interviews and FGDs will be guided by open-ended questionnaires that shall be based on the research objectives.

3.6 Pilot Study

Pre-testing will be conducted to assist in determining accuracy, clarity and suitability of the research instrument. This will include a pilot study targeting 10 girls and 2 guidance and counselling teachers drawn from 2 schools in neighbouring Kale County.

The data obtained from the pilot study will be used to ascertain the appropriateness and relevancy of the questionnaire to the study. Cronbach's alpha, a reliability coefficient which varies from 0 to 1 whereby a value of 0.7 or less indicates unsatisfactory internal consistency reliability will be used to test the reliability of items in the questionnaires (Malhotra, 2004).

To ensure the validity of the instrument, internal and external validity tests will be carried out. Face validity shall be assessed by finding out the ease with which the respondents answer the research questions. In this case, any ambiguous questions shall be adjusted to make them easy to understand and answer. Cooper and Schindler point out that content validity offers adequate investigation of the study questions (Cooper & Schindler, 2003). The questionnaire shall also be presented to the supervisors for review and their input on the constructs of the research used to improve the questionnaire. Construct validity shall be ensured through the operationalization by setting the questions in the questionnaire based on the reviewed literature and the operationalized definition of the study variables.

Content validity will be used to find out if the instrument would answer all the research questions. Furthermore, factor analysis will also be used to test construct validity whereby the right coefficients from the data will be obtained and the results use to make adjustments, corrections, and additions to the research instrument.

3.7 Method of Data Analysis

The data collected using questionnaires will be analysed using the Statistical Package for the Social Sciences (SPSS) version 24. Descriptive statistics such as: frequencies, percentages and means shall be conducted. Furthermore, correlation analysis was used to test the correlation between the independent and the dependent variables.

The findings obtained will be presented in form of Tables and Figures and conclusions drawn. Data from interviews and FGD guides will be subjected to thematic analysis. These shall be reviewed and the emergent meanings drawn and applied to answer initial research questions and issues (Miles & Huberman, 1994).

IV. FINDINGS & DISCUSSIONS

4.1 Response Rate

The study sampled 349 girls, 15 guidance and counselling teachers, 30 religious leaders and 9 MOeSt officials. Out of these, 296 girls (84.8%), 11 guidance and counselling teachers (73.3%), 24 religious leaders (80%) and 6 MOEST officials (75%) took part in the study. The overall response rate was 82.4%. This was considered sufficient for data analysis.

Table 2
Response Rate

Category		Sampled	Responded	Response Rate
1.	Girls	349	296	84.8
2.	Guidance & Counseling Teachers	15	11	73.3
3.	Religious Leaders	30	24	80.0
4.	MOEST Officials	8	6	75.0
Total		**409**	**337**	**82.4**

4.2 School Based Interventions and Management of Teenage Pregnancy

The second objective of the study was to assess the influence of school-based interventions on the management of teenage pregnancy in Mombasa County. The findings from psychometric scale statements were presented in Table 3.

Table 3
School Based Interventions and Management of Teenage Pregnancy

Descriptive Statistics				
	Min	Max	Mean	Std. Dev.
My school has guidance and counselling programmes aimed at guiding us on risky sexual behaviours	1	5	4	1.45
My school has role models who guide us on how to avoid risky sexual behaviours	1	5	3	1.48
The school has special programs aimed at checking teenage pregnancy	1	4	1	0.88
The school cooperates with ministry of health officials to ensure that girls receive the relevant sexual and reproductive health education	1	5	2	1.53
The school has elaborate interventions for checking school dropout and this creates protection from early pregnancy among girls	1	5	2	1.31
The school enhances life skills which is crucial in pregnancy prevention since it enables girls make reasonable and intentional sexual choices	1	5	3	1.70
N=296				

The girls agreed to a great extent (M=4) that their schools had has guidance and counselling programmes aimed at guiding us on risky sexual behaviours. They went on to agree to a moderate extent (M=3) that their school had role models who guided them on how to avoid risky sexual behaviours and that their schools enhanced life skills which is crucial in pregnancy prevention since it enables girls make reasonable and intentional sexual choices (M=3). They went on to agree to a little extent (M=2) that the school cooperated with ministry of health officials to ensure that girls received the relevant sexual and reproductive health education and that the school had elaborate interventions for checking school dropout and this created protection from early pregnancy among girls (M=2). However, the girls

pointed out that the school did not have special programs aimed at checking teenage pregnancy (M=1). These findings show that the school did not have very strong interventions against teenage pregnancy away from the regular guidance and counselling services. This meant that schools did not give strong ecological guidance against risky taking behaviours to the girls which result in cases of teenage pregnancy.

The findings were corroborated by the interview and FGD participants who opined that although schools provided guidance and counselling services to girls, the main emphasis was on good discipline and academic performance. There was lack of strong specific programs aimed at checking teenage pregnancy among girls. But even when the schools advised girls on the dangers of risky sexual behaviours, their efforts did not bear the required fruits since some girls did not hear. This can be affirmed by the words of one of the respondents who said:

> *"Advising girls does not always bear fruit since some of them do not hear. You can talk and talk to girls but negative influences carry the day and they end up behaving the way they want"* (Respondent F, May 2022, Mombasa).

The findings show that the schools had guidance and counselling programmes aimed at guiding the girls against risky sexual behaviours. This is in line with the study by Kangwana, Muthengi and Austrian (2020) that shows the pertinence of guidance and counselling programmes in checking risk sexual behaviours that could predispose them to teenage pregnancy. To support this, the schools also provided role models who gave guidance and enhanced life skills which are crucial in pregnancy prevention since it enables girls make reasonable and intentional sexual choices. This is pivotal since informed sexual decisions could militate against teenage pregnancy as posited by Tesema, Tamirat, and Tadele (2020). Furthermore, government, through the ministry of health worked with the schools closely on matters sexual and reproductive health education. These findings are in line with the National adolescent sexual and reproductive health policy (2015) that creates a framework for addressing the challenges related to adolescent and youth reproductive health issues (Population Council of Kenya, 2015). Such a framework calls for school based interventions that were crucial in dealing with risky sexual behaviours that could contribute to teenage pregnancy. The school also had elaborate interventions for checking school dropout and this created protection from early pregnancy among girls. This corroborates the study by Stoner et al. (2019) in South Africa that shows that school dropout was correlated with teenage pregnancy and vice versa. By keeping girls in school, it was possible to check teenage pregnancy among girls in Mombasa County.

However, the girls pointed out that the school did not have special programs aimed at checking teenage pregnancy. There was lack of strong specific programs aimed at checking teenage pregnancy among girls. These findings show that the school did not have very strong interventions against teenage pregnancy away from the regular guidance and counselling services. This meant that schools' ecology did not give strong guidance against risky taking behaviours to the girls which result in cases of teenage pregnancy. Therefore, there is need to strengthen interventions in the ecology of the girl, including schools, to rein in on teenage pregnancy as posited by Garney et al. (2018). Based on these findings, it is evident that schools had rooms for improvement as far as controlling teenage pregnancy was concerned.

4.3 Management of Teenage Pregnancy

The dependent variable in this study was the management of teenage pregnancy. The findings from psychometric scale statement were presented in Table 10.

Table 4
Teenage Pregnancy

Descriptive Statistics				
	Min	Max	Mean	Std. Dev.
There are high levels of teenage pregnancy in my community	1	5	3	1.59
Sometimes we have cases of unwanted pregnancies and abortions in the school	1	5	3	1.30
Sometimes I have casual and unprotected sex among my colleagues in school	1	5	1	0.91
Some girls have dropped out of school due to teenage pregnancy and opted to get married	1	5	4	1.29
There are some girls who are young mothers and have been allowed to go back to school and learn	1	5	4	1.14
N=296				

The girls agreed to a great extent (M=4) that some girls had dropped out of school due to teenage pregnancy and opted to get married. They also agreed to a great extent (M=4) that some girls who were young mothers had been allowed to go back to school and learn (M=4). They also agreed to a moderate extent (M=3) that there were high levels of teenage pregnancy in their communities and that sometimes they have cases of unwanted pregnancies and abortions in the school (m=3). However, the girls denied that sometimes they had casual and unprotected sex with their colleagues in school (M=1). These findings show that there were incidences of teenage pregnancy among school girls. This underlines the need for interventions aimed at checking the teenage pregnancies and their associated consequences such as abortions, girls dropping out of school as well as early marriages among others.

The interview and FGD participants affirmed the gravity of teenage pregnancy among girls in the county. Some of the respondents said that it was often hard to quantify the numbers of teenage pregnancy. Nevertheless, it was hard to deny the consequences of teenage pregnancy in the county which was evidenced in high rate of school dropout among girls who got pregnant, early motherhood, transmission of venereal diseases, cases of abortion and death after abortion in some cases. These incidences called for transformative social change strategies to the management of teenage pregnancies in Mombasa County as envisaged by this current study. In support of these findings, one of the interview participants said:

> *"Teenage pregnancy was a menace in the society. Girls were often exposed to risky sexual behaviours with some of them ending up getting pregnant. Some of them ended up carrying out abortion"* (FGD 2, May 2022, Mombasa).

4.4 Hypotheses Testing

Pearson correlation shows that school-based interventions (r=0.063, p>0.05) did not have statistically significant effects on the management of teenage pregnancy. There was thus need to strengthen the contribution of families and school interventions in curbing teenage pregnancy.

Table 5
Pearson Correlation

Correlations		School-Based Interventions	Teenage Pregnancy
Teenage Pregnancy	Pearson Correlation	.063	1
	Sig. (2-tailed)	.277	
	N	296	296
**. Correlation is significant at the 0.01 level (2-tailed).			

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusion

The purpose of this study was to assess the contribution of school-based ecological transformative social change strategies to the management of teenage pregnancy with reference to Mombasa County, Kenya. The findings show that the issue of teen pregnancy is of great concern in the county of Mombasa. This is evidenced by the high rate of school dropout among girls who got pregnant, early motherhood, transmission of venereal diseases, cases of abortion and death after abortion in some cases. Pearson correlation shows that school-based interventions (r=0.063, p>.05) did not have significant effects on the management of teenage pregnancy. It is thus important to enhance measures aimed at reining in on teenage pregnancy at the school level.

5.2 Recommendations

There is need to put measures in place aimed at checking teenage pregnancies and their associated consequences such as abortions, girls dropping out of school as well as early marriages among others. As a result, there is thus the need to strengthen the contribution of school interventions in curbing teenage pregnancy.

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