

# The Psychosocial Effects of Early Pregnancies among Teenagers in Kitui Nzambani Sub-County, Kenya

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**ABSTRACT:** Teenage pregnancy has become a phenomenon of concern. This study aimed at establishing the psychosocial effects of early pregnancies among teenagers in Kitui Nzambani Sub-County, Kenya. The research was guided by two theories, namely the Reason Action Theory and Social Cognitive Theory. The study used a quantitative research approach. The study considered a population 516 teenage females who attended prenatal care in the hospitals located in Nzambani Sub- County. A simple random sampling method was used in drawing the sample size. The researcher used the Yamane (1967) formula to determine the sample size of 225 teenagers. Data was collected using a questionnaire. Data was analyzed by using the inferential statistic with the Social Package for Social Sciences version 22. More than half of the respondents (56.3%) attributed the teens' pregnancy due to lack of information on matter of sexual education and reproductive health and rights. The results of the Post-Traumatic Growth scale showed that the most significant change occurred in personal strength (Mean = 3.1580), in appreciation of life (Mean = 2.9962), in new possibilities (Mean= 2.9632). This implies that respondents gained some positive growth after experiencing the traumatic event. The study recommended an increase in parental care as well as the strengthening of the support systems providing sexual education to Teenagers, as well as improving Teenage' access to services dealing with reproductive health.

## I. INTRODUCTION

Teenage pregnancy is a phenomenon that is evident in society that has impacted youths significantly. Teenage pregnancy affects teenagers in diversified ways to include socially, emotionally, spiritually, economically, and even cognitively. It socially affects teenagers by bringing changes in their social interactions and communication among their social systems. It also brings about emotional instability due to ill feelings that come with being pregnant. This could be the result of society's disapproval among other reasons. Teenage

pregnancy is one of the current major psychological concerns in society today (Mudzokora, 2017). Young people are becoming sexually active early in life and this brings about an impact on their overall wellbeing. The issue of teenage pregnancy has been multifaceted starting with the current menace of adolescents/teenagers being involved in drug and substance abuse. These factors, directly and indirectly, lead to teenage pregnancy that negatively affect school-going children making most of them drop out of school amongst other consequences. As a result, the overall impact is felt when a society is deprived of its elite members since most of them are forced into early parenting hence choose to bring up children instead of getting educated. The magnitude of the problem is not only felt in the society, it is a regional problem that intensifies to be a national issue that becomes an international issue in its worst extremes (Nabugoomu, Seruwagi & Hanning, 2020). There was a need of understanding the causes of teenage pregnancy in-depth and the psycho-traumatic stress that come with it.

In the Kenyan context, most teenagers are nurtured to be morally and spiritually upright individuals, and being pregnant affects their spiritual wellbeing. Early pregnancy comes with economic concerns such as the capital needed to raise and sustain a child. It is also a significant outcome that early pregnancy affects how an adolescent thinks or interprets information. By fully understanding the dynamics of life that comes with an adolescent becoming pregnant appropriate interventions are sought hence the significance of this study. It is also an attempt of finding out the post-traumatic outcomes of early pregnancies among teenage girls in Nzambani Sub-County, Kitui County. It is estimated that 15% of young women give birth before the age of 18 worldwide. Early childbearing, or pregnancy and delivery during adolescence, can jeopardize adolescent girls' otherwise healthy development into adulthood, negatively impacting their education, livelihoods, and health. Many pregnant girls are pressured or forced to drop out of school, affecting their educational and employment prospects and opportunities. Early pregnancy and childbearing can also have social consequences for girls, such as lower status in the home and community, stigma, rejection, and violence from family members, peers, and partners, and early and forced marriage. Adolescent girls, particularly those in their early adolescence, are especially vulnerable to the health consequences of pregnancy and delivery because their bodies may not be physically prepared. Obstetric fistula, eclampsia, puerperal endometritis, and systemic infections are just a few of the serious conditions they may encounter in the short and long term (UNICEF, 2021). Various pieces of literature showed that the prevalence of adolescent pregnancy varies by region of the world. According to Lama, Rijal, Budathoki, and Shrestha (2012), in the Asia Pacific region, the prevalence ranges from 11.1 % to 47.3 % in Nepal and up to 43% in Bangladesh. In Africa, the prevalence of adolescent pregnancy varies. For example, in Nigeria, it ranges from 6.2 % in Niger Delta state to 49% in Abia State (Ayuba, & Gani, 2012) and Nwosu (2017). It ranges from 2.3 to 19.2 % in South Africa, 31 % in East Africa (Kenya), 20.4 % in Assossa (Ethiopia), and 31 % in Sudan as reported by Mchunu, Peltzer, Tutshana, and Seutlwadi (2012).

According to Domenico, Karen and Jones (2007), today puberty occurs much earlier in adolescents, and first time sexual encounters are taking place at younger ages, resulting in more sexually experienced adolescents. Between 1988 and 1995, the proportion of adolescent females who first had sex at 14years old or younger practically doubled. There is not a direct relationship between the time a girl reaches puberty and the likeliness of her becoming pregnant; however, earlier onset of puberty combined with more peer pressure and less parental supervision results in today's adolescents being faced with making premature sexual decisions.

In Ghana, Kyilleh et al. (2018) conducted a study to investigate adolescents' reproductive health knowledge and choices, the types of choices they make, and the factors that influence these choices. It was a qualitative study that took a narrative approach to qualitative investigation. Eight focus group discussions (N = 80) were held with adolescents aged 10–19 years old, both in and out of school. In addition, nine in-depth interviews with various stakeholders in reproductive health services and community opinion leaders were conducted. The study found that respondents had little knowledge of reproductive health options, with the majority relying on their peers for information on sexual and reproductive health. Reproductive health services were available in the community but were underutilized due to health workers' perceived negative attitudes,

confidentiality, and social norms. Early and unexpected motherhood comes with several challenges which is both psychological and socially.

In Tanzania, a study was conducted by Deardorff et al. (2005) and came to this conclusion. Young girls maturing early in terms of early puberty and menarche are more likely not only to engage in sexual intercourse but also substance abuse. Early sexual behaviours when coupled with low reproductive health knowledge, unprotected sexual intercourse in particular, increases the risk of teen Pregnancy. More ever, most girls cannot exercise their rights in making a choice or decision on condom or other contraceptives use due to the fear of losing a partner or making her partner angry. The study conducted by Waraga and Ngari (2018) in Pokot South Sub County of West Pokot County in Kenya, established that social causes of pregnancy in the area consisted of peer influence, mass media and neglect by parents. Cultural causes were equally mentioned such as the silence behaviour. It is taboo to talk about sex and sexuality matters and preserving tradition and economic as poverty, unemployment as among the factors predisposing adolescent girls to pregnancy.

Family stress theory outlines and investigates the periodic, acute pressures that all families experience. This build-up can lead to personal and family crises, including physical, mental, or relational trauma, if these stressors become frequent or if the individual or family lacks the support of meaningful relationships (Conger, Conger, & Martin, 2010). The Social Determinants of Health (SDH) theory claims that adolescent mothers' health is influenced by their social and structural surroundings, as well as the resources available to them (WHO, 2014). Both theories acknowledge the complex interplay and stress experiences of the social and economic systems in which people (adolescent moms) live, as well as their effects on family members' health behaviours and results. Unintended parenthood can result in stigma, poverty, low education, unemployment, limited support, and food insecurity for adolescent moms in Low and Middle Income Countries in Sub-Saharan Africa (Lempp, 2018). Pregnant teens may be at a higher risk of depression than non-pregnant teens. Figures vary depending on the sample, but rates of 25% (Hodgkinson et al., 2010), 30%, and 42% have been reported. Depression can have serious consequences for adolescent pregnancy, birth outcomes, repeat childbearing, and parenting (Corcoran, 2016). As previously stated, the occurrence of adolescent pregnancy is multifactorial, and depression may be one factor that contributes to early pregnancy in the presence of other risk factors. Vladutiu et al. (2014) compared pregnant adolescent women to pregnant adults. In multivariate analysis, the following factors, in order of magnitude, had a significant independent association with younger age of motherhood: a history of parental separation/divorce, early childhood exposure to family violence, illicit drug use, pregnancy idealization, low family income, a positive standardized depression or anxiety score, and a low level of education. Adolescent pregnancy has been linked to an increased risk of physical and mental health problems in the mother (Xavier, Benoit & Brown, 2018). It also leads to lower socioeconomic position, poor physical health, and greater adult death rates (Agnafors, Bladh, Svedin, & Sydsjo 2019).

Henretta, Grundy, Okell, and Wadsworth (2008) found that having a child at a young age was linked to poorer mental health in women in their fifties. Another Australian study of almost 4000 women found that young mothers, particularly adolescent mothers, had a higher risk of poor mental health than mothers aged 25 and over. There was also evidence that health disparities between teenage and normal birth age mothers emerged over time, with adolescent mothers having a higher risk of poor health as they grew older. (Aitken, Hewitt, Keogh, LaMontagne, Bentley & Kavanagh 2016). The aim of the study was to establish the psychosocial effects of early pregnancies among teenagers in Nzambani Sub County in Kitui County.

## **II. RESEARCH METHODS**

### **Research Design**

The study used a quantitative research approach. According to Creswell (2014) this method allows the researcher to employ only quantitative research design for conducting a study. (Abadali, Asatsa & Ntaragwe,

2021). The sampling period was covered in a period of two months. It was the sufficient time needed in identifying and selecting adolescents attending prenatal as well as postnatal services.

### **Study area**

The study was conducted in Nzambani Sub-County of Kitui County that is in Eastern province. It has an area of 30,430 square kilometres. It shares the borders with seven counties: Tharaka Nithi and Meru to the North, Embu to the North-West, Machakos, and Makueni to the West, Tana River to the East and South-East, and Taita-Taveta to the South. Kitui County has 8 administrative Sub Counties; Kitui-West Sub-county, Kitui-Central sub-county, Kitui-Rural sub-county, Kitui-South sub-county, Nzambani Sub County, Mwingi-North sub-county, Mwingi-Central Sub County, and Mwingi-West Sub County. The target population for this study was comprised of all the teenagers who attended the services of ante natal clinic (ANC) and post-natal clinic (PNC) during 2020 and 2021 periods. The statistics from the hospitals showed that there was a total of 588 teenagers girls who accessed these services.

### **Sampling procedure and sample size**

The study used a simple random sampling method of selecting a subset of the population in order to make statistical inferences and estimate population characteristics. Form the total population of 588 individuals, the researcher applied the Yamane's formula (1967) in order to draw the sample.

$$n = \frac{N}{1 + N(e)^2}$$

n = Sample size

N= Signifies Population under study

e= Signifies the margin error. (0.05)<sup>2</sup>

$$n = 516 / 1 + 516 (0.05)^2$$

$$n = 516 / 1 + 516 (0.0025)$$

$$n = 516 / 1 + 1.29$$

$$n = 516 / 2.29$$

$$n = 225.327$$

$$n = 225$$

Therefore, the sample size of respondents was 225 teenage girls.

### **Instruments of measure**

Data was collected using two sets of questionnaires. The first set of the questionnaire used self-developed instruments. This helped the researcher to collect the socio-demographic information of respondents as well as the contributing factors to early pregnancies among Teenagers. The self-developed instruments had 6 items. The instruments reported high internal consistency of 0.82. These instruments were formulated in an accessible language for secondary school level and above The second set of the questionnaire was Post-Traumatic Growth Inventory scale, a standardised instrument, as developed by Tideschi and Calhoun (1996). It is a set of 21 items 5 point Likert scale that measures the dimensions of personal strength, new possibilities, improved relationships, spiritual growth, and appreciation for Life. A high total score implies that the person has undergone a positive transformation.

### **Data analysis**

Data analysis is important as it paves way to drawing conclusions of a research study. Despite being a mouthful, quantitative data analysis simply means analyzing data that is numbers-based or data that can be easily "converted" into numbers without losing any meaning (Samuels, 2020). Data was analyzed by using the inferential statistic with the Social Package for Social Sciences version 22. The study used the mean and the percentage in expressing how a value or group of respondents within the data related to a larger group of respondents.

### III. THE FINDINGS OF THE STUDY

#### Demographic Information of the Respondents

**Table 1:**

*Age Distribution of Respondents*

	Frequency	Percent
Below 15 years	30	17.2
15-19	144	82.8
Total	174	100.0

The results in table 1 show the age distribution of the respondents. The results indicate that the majority of the respondents (144) representing 82.8% were in the age bracket between 15 and 19 years of age. The study expected to collect valuable answers from respondents due to their age.

#### Education of Respondents

**Table 2**

*Education of Respondents*

	Frequency	Percent
Primary	66	37.9
Secondary	108	62.1
Total	174	100.0

The result in table 2 show that most of the respondents (108) were in secondary school level, while 66 respondents were in primary education. The results indicate that the respondents were able to understand the questions and provide valuable information for this study.

#### Time Living in Nzambani Sub County

**Table 3**

*Time Living in Nzamani Sub County*

	Frequency	Percent
Less than a year	12	6.9
1-5 years	25	14.4
6-10 years	59	33.9
Above 10 years	78	44.8
Total	174	100.0

The result in table 3 show that the 78 respondents representing 44.8 % have been staying in Nzambani Sub County for a period of over 10 years. Another section of the respondents has been staying in Nzambani Sub County. This information provides clue that the early pregnancy was an issue grounded in the community.

### Findings

The objective of the study was to establish the psychosocial effects of early pregnancies among teenage mothers in Nzambani Sub- County, in Kitui County. The study used the Post traumatic inventory tool for measuring the psychological effects.

**Table 4:**

*Level of Posttraumatic Growth among Adolescent Girls in Nzambani Sub County*

	N	Minimum	Maximum	Mean	Std. Deviation
Personal Strength	174	.50	5.00	3.1580	1.17360
New Possibilities	174	.80	5.00	2.9632	1.10867
Improved Relationships	174	.43	5.00	2.8826	1.09065
Spiritual Growth	174	.00	5.00	2.9282	1.43924
Appreciation for life	174	.00	5.00	2.9962	1.23687
Valid N (listwise)	174				

The results in table 4 indicate that the respondents experienced some changes in their lives due to the pregnancy situation. The most significant change occurred in the personal strength (Mean = 3.1580), in appreciation of life (Mean = 2.9962), in new possibilities (Mean = 2.9632). It was followed by changes experienced in the spiritual growth (Mean = 2.9282) and improved relationships (Mean = 2.8826). The results show that in any traumatic event experienced, an individual is open to learning and adopting positive attitudes.

**Table 5:**

*Underlying Factors to Early Pregnancies*

Underlying Factors to Early Pregnancies	N	Mean	Std. Deviation
Lack of information about sexual and reproductive health and rights	173	1.70	1.052
Inadequate access to services tailored to young people	174	1.97	1.017
Covid-19 is linked to high Number of unintended Teen Pregnancies	174	2.03	1.303
Early childbearing can have Severe Consequences for Adolescent girls	174	1.65	.978
Adolescent pregnancies are a global problem that occurs most often in poorer and marginalized communities	174	1.77	1.093
Teenage pregnancy increases when girls are denied the right to make decisions about their sexual and reproductive health and wellbeing	174	2.38	1.274
Many girls face considerable pressure to marry early and become mothers while they are still young	174	2.24	1.224
	<b>173</b>		

The results in table 5 indicate the average mean of responses for the participants. The findings show that “Teenage pregnancy increases when girls are denied the right to make decisions about their sexual and reproductive health and wellbeing” had a high mean (2.38). It was followed by “Many girls face considerable

pressure to marry early and become mothers while they are still young” with a mean of 2.24. The caused related to Covid-19 had a mean of 2.03.

#### **IV. Discussion**

The study applied the Post Traumatic Growth Inventory in assessing the participants’ s psychological outcome after the experience of early pregnancy. The results indicated some positive outcomes and the experience of resilience. According to Collins dictionary (2010), resilience refers to positive outcomes in the presence of adversity, rather than to positive adaption in general. It surfaces in the face of hardship and denotes the ability of individuals who can bounce back from adversity. The results of this study concurred with the finding of a study conducted by Sawyer et al. (2012). The researchers reported that at least a small degree of positive change following childbirth was reported by 47.9% of women; however, average levels of growth were lower than generally reported in other studies. In a study conducted in Ghana by Mensah (2016), and involving 460 pregnant teenagers, the result indicated that in all, about 53% of the adolescent pregnant girls and mothers studied were found to have high resilience whereas 47% had low resilience to teenage pregnancy. The results of this study are supported by the finding of a study conducted in the Caribbean by Onuoha and Spring (2015). The results showed that participants reported a high level of determination to succeed in life in spite of the pregnancy among those who were pregnant. A traumatic event can be transformative. This is the post traumatic growth as witnessed by people who have gone through traumatic experiences such as a terrorist attack among others. According to Asatsa (2018) the majority of participants (100%) reported positive transformation in terms of spiritual growth and interpersonal relationships followed by altruisms and self-efficacy (90%), improved self-esteem (70%) and appreciation of life (50%). The results of this study contrasted with the finding of a study conducted Corcoran (2016). The finding indicated that pregnant teens may be at a higher risk of depression than non-pregnant teens. Figures vary depending on the sample, but rates of 25% (Hodgkinson et al. 2010), 30%, and 42% have been reported. Depression can have serious consequences for adolescent pregnancy.

The study assessed the factors leading to early pregnancy. The findings outlined the fact that teenagers were not involved in decision making in matters related to sexual and reproductive health as well as their wellbeing. It was also reported that many girls faced considerable pressure to marry early, lack of information among others reasons. These results were similar to the findings of other studies. There are several factors that might lead to teenage pregnancy. Adolescent pregnancies are a global problem that occurs most often in poorer and marginalized communities where the voice of girls is not considered. Many girls face considerable pressure to marry early and become mothers while they are still children. Teenage pregnancy increases when girls are denied the right to make decisions about their sexual and reproductive health and wellbeing. Lumempouw, Kundre, and Bataha (2016) also reported results supporting this study. It was indicated that a lack of or insufficient understanding of high-risk pregnancies and the risks they entail, increased the number of high-risk pregnancies. Behavioural and social factors also increase pregnancy risks. The findings of the study carried out in South Africa by Macleod (1999) confirmed that ignorance concerning sexuality, contraception, conception and reproductive biology was seen by many researchers as the major contributing factor in teenage pregnancy. The result of a study conducted in Ghana, by Kyilleh et al (2018) supported the findings of this study. It reported that respondents had little knowledge of reproductive health options, with the majority relying on their peers for information on sexual and reproductive health. Reproductive health services were available in the community but were underutilized due to health workers' perceived negative attitudes, confidentiality, and social norms.

However, despite the existence of information and other facilities, another factor was to consider, when it comes to teenage pregnancy. According to a research conducted by Plan International in year 2020 across nine counties in Kenya, unintended or unwanted teenage pregnancy was a huge issue for girls, significantly impacting their lives. The research found out that sexual violence is believed to affect about one-third of girls and one-sixth of boys under 18, but most do not discuss their experiences or receive assistance. The results of a study conducted by Glynn et al. (2018) indicated that the early pregnancy could be a choice due to school

dropout. The report stated that information on at least one outcome was available for >16,000 children seen at ages 10–18. Sexual debut was available on a subset aged  $\geq 15$  by 2011. For girls, being out of school was strongly associated with earlier sexual debut, pregnancy and marriage another.

## V. CONCLUSION

The purpose of this study was to identify the causes of early pregnancy as well as to assess the post traumatic growth in early pregnant girls in Nzambani Sub County. The study used a quantitative research approach. The findings indicated that the lack of information on reproductive health, childrearing, poverty among others were leading to early pregnancy among teenagers. It was found that there was some post-traumatic growth in the early pregnant girls especially in the dimension of personal strength, appreciation of life, and new possibilities. The study indicated that some supportive programs and facilities were available in their locations and which could be meaningfully used by adolescents. The study recommended that parents and other stakeholders, join effort in improving the access to preventing measures in mitigating the early pregnancy phenomenon among teenage girls.

## REFERENCES

- [1] Abadali, K. R., Asatsa, S. & Ntaragwe, M. (2021). Adolescents social networking and self-concept in public mixed day secondary schools in Kajiado North sub county, Kenya. *International Journal of Research and Innovation in Social Science*. 5 (7) 841-847.
- [2] Agnafors, S., Bladh, M., Svedin, C. G. & Sydsjo, G. (2019). Mental health in young mothers, single mothers and their children. *BMC Psychiatry*. 19 (1) 112.
- [3] Aitken, Z., Hewitt, B., Keogh, L., LaMontagne, A. D., Bentley, R., & Kavanagh, A. M. (2016). Young maternal age at first birth and mental health later in life: Does the association vary by birth cohort? *Social Science Medicine*. 157:9–17.
- [4] Asatsa, S. (2018) *Trauma Processing Strategies and Posttraumatic Growth among Terrorist Attack Survivors at Garissa* (Doctoral Dissertation-The Catholic University of Eastern Africa).
- [5] Ayuba, I. I., & Gani, O. (2012). Outcome of teenage pregnancy in the Niger Delta of Nigeria. *Ethiopian Journal of Health Sciences*, 22 (1), 45-50.
- [6] Collins English Dictionary (2010). Resilience. Harper Collins Publishers, Glasgow.
- [7] Conger, R. D., Conger, K.J., & Martin, M. J. (2010) Socioeconomic status, family processes, and individual development. *Journal Marriage Family*. 72 (3) 685–704.
- [8] Corcoran, J. (2016). Teenage pregnancy and mental health. In *Societies*. 6 (21) 2-9. Doi:10.3390/soc6030021
- [9] Creswell, J. W. (2014). *Research Design* (4th ed.). SAGE Publications
- [10] Deardorff, J., Gonzales, N.A., Scott, C., Roosa, M.W. & Millsap, R.E. (2005). Early puberty and Adolescent pregnancy: The influence of alcohol use. *American Academy of Pediatrics*. 6 (6). 1451 - 1456.



- [11] Domenico, D.M., Karen, H. & Jones, E.D. (2007). Adolescent Pregnancy in America: Causes and Responses. *The Journal for Vocational Special Needs Education*. 30 (1) 1-12.
- [12] Glynn, J.R., Sunny, B.S., DeStavola, B., Dube, A., Chihana, M., Price, A.J. & Crampin, A.C. (2018). Early school failure predicts teenage pregnancy and marriage: A large population-based cohort study in northern Malawi. *PLoS One*. 13 (5) doi: 10.1371/journal.pone.0196041
- [13] Henretta, J. C., Grundy, E. M. D., Okell, L. C., & Wadsworth, M. E. J. (2008). Early motherhood and mental health in midlife: A study of British and American cohorts. *Ageing Mental Health*. 12(5).
- [14] Hodgkinson, S. C., Colantuoni, E., Roberts, D., Berg-Cross, L., & Belcher, H. M. (2010). Depressive symptoms and birth outcomes among pregnant teenagers. *Journal of Pediatric and Adolescent Gynecology*, 23 (1), 16-22.
- [15] Kyilleh, J.M., Tabong, P.T.N. & Konlaan, B.B. (2018). Adolescents' reproductive health knowledge, choices and factors affecting reproductive health choices: a qualitative study in the West Gonja District in Northern region, Ghana. *BMC Int Health Hum Rights*. 18 (1):6. doi: 10.1186/s12914-018-0147-5.
- [16] Lama, L., Rijal, P., Budathoki, S., & Shrestha, A. D. (2012). Profile of neonates born to adolescent mothers at. *Nepal Med College Journal*, 14 (4), 294-297.
- [17] Lempp, H, Abayneh, S., Gurung, D., Kola, L., Abdulmalik, J., Evans-Lacko, S, et al. (2018) Service user and caregiver involvement in mental health system strengthening in low- and middle-income countries: A cross country qualitative study. *Epidemiology Psychiatric Science*. 27(01):29–39.
- [18] Lumempouw, V.J., Kundre, R.M. & Bataha, Y (2016.) "Relationship between Socio-Economic Factors of Pregnant Women with Regular Antenatal Care (ANC) Examination at Ranotana Weru Health Center, Wanea District, Manado City," *e-Journal of Nursing*. 4 (2) 1-7.
- [19] Macleod, C. (1999). The causes of teenage pregnancy: Review of South African Research. *South African Journal of Psychology*. 29 (1) 8-16
- [20] Mchunu, G., Peltzer, K., Tutshana, B., & Seutlwadi, L. (2012). Adolescent pregnancy and associated factors in South African youth. *African Health Sciences*, 12 (4), 426-434.
- [21] Mensah, K.O. (2016). *Adolescent Girls' Resilience to Teenage Pregnancy in the Fanteakwa District* (Doctoral Dissertation- University of Ghana).
- [22] Mudzokora, W. (2017). *Female Adolescents' Experiences and Perceptions of Teenage Pregnancy in Belfast, Mpumalanga*. (Doctoral dissertation).
- [23] Nabugoomu, J., Seruwagi, G. K., & Hanning, R. (2020). What can be done to reduce the prevalence of teen pregnancy in rural Eastern Uganda? Multi-stakeholder perceptions. *Reproductive Health*, 17(1), 1-12.
- [24] Onuoha, P. & Spring, C. (2015). Perceptions of teenagers on teenage pregnancy in a rural Caribbean community. *International Journal of Recent Scientific Research*. 6 (12) 7917- 7923.

- [25] Samuels, P. (2020) A really simple guide to quantitative data analysis. In *Research Gate*. DOI: 10.13140/RG.2.2.25915.36645
- [26] Sawyer, A., Ayers, S., Bradley, R.J., & Smith, H.E. (2011) Posttraumatic growth after childbirth: A prospective. *Psychology and Health*. 27(3), 362 - 377. doi: 10.1080/08870446.2011.578745.
- [27] Tedeschi, R. G. & Calhoun, L G. (1996). The posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*. 9, 455-471.
- [28] Vladutiu, C. J., Evenson, K. R., Borodulin, K., Deng, Y., & Dole, N. (2014). The association between physical activity and maternal sleep during the postpartum period. *Maternal and child health journal*, 18 (9), 2106-2114.
- [29] Waraga, T.N. & Ngari, S.M. (2018). Social Causes of Pregnancies Among Secondary School Girls: Implication for Counselling in Pokot South Sub County of West Pokot County, Kenya. *Journal of Education and Practice*. 9 (29) 103-108.
- [30] WHO (2014) CSDH. Closing the Gap in a Generation Health Equity through Action on the Social Determinants of Health Commission on Social Determinants of Health. *Final Report of the commission on social determinants of health*. Geneva.
- [31] Xavier, C., Benoit, A., & Brown, H. K. (2018). Teenage pregnancy and mental health beyond the postpartum period: A systematic review. *Journal of Epidemiology Community Health*. 72(6):451–467.