



COVID 19 lockdown related teenage pregnancy: Concept analysis

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Abstract

Adolescent Sexual and Reproductive Health is an important aspect of Public health that may be overlooked in the era of the COVID-19 pandemic (Murewanhema, 2020). The pandemic therefore, directly exposes adolescent girls to increased risks of unintended pregnancies, abortions, early marriages, sexually transmitted infections including HIV and Human Papilloma Virus (Murewanhema, 2020), despite the introduction of HIV and AIDS Reproductive Health and Life Skills Education in the schools curricula as early as 1993 in Zimbabwe. According to (World Vision Zimbabwe, 2020), there has been an increased incidence of teenage pregnancies and early marriages in Zimbabwe and the figures have doubled since the beginning of the COVID19 lockdown. This then has necessitated the need to obtain data that will help in the analysis of the COVID19 lockdown related teenage pregnancies so as to assist policy makers to come up with strategies and a contextualised policy to help curb an upsurge of teenage pregnancy during a crisis or a lockdown; and also informed by their understanding of sexual rights. Adolescence is a period which could be characterised by deficiency needs; of bodily comforts in a deprived environment; of insecurity and loss of guidance in dealing with lack of finances and poverty; of isolation, loneliness and neglect; and psychosocially, of battling with low self-esteem and fear of rejection, and all these emanate from basic needs as espoused by Maslow (Huitt 2017). These needs influence critical thinking processes required for decision making and acquisition of negotiation skills.

Methodology: This concept analysis of COVID19 lockdown related teenage pregnancies was done following the Walker & Avant (2011) 8 step model. The literature exploration was conducted in 10 days and 20 articles were selected at the initial search and only 9 articles were reviewed for analysis. The Google scholar and PubMed search engines were used to evaluate the journals and papers.

Results: The findings were that literature reported an upsurge in teenage pregnancies; and concentrated on predisposing factors to teenage pregnancy during the COVID19 lockdown period and in this concept analysis paper they are the antecedents of COVID19 lockdown related teenage pregnancy. The COVID 19 lockdown related adolescent pregnancy was defined as any pregnancy from a girl aged 19 years and below whose pregnancy occurred during the COVID19 lockdown period.

Conclusion: In a bid to minimise the COVID19 lockdown related, teenage- pregnancy, there might be a requirement for adolescent girls to be empowered to manage change as they consider morality, legal and ethical behaviour ahead of instant physical gratifications, as sexual indulgence has penalties. Consequently, a knowledge gap has been created necessitating the exploration of lived experiences of these teenage girls so as to develop mitigation strategies and a policy that is evidence based to avoid an increase of these pregnancies during a lockdown period.

Keywords: Teenage pregnancy, concept, COVID 19 lockdown, sexual, attribute

Introduction

It is a cause for concern that schools have been closed for months without plans to reopen in the near future. According to (World Vision Zimbabwe, 2020) ^[29, 30], there has been an increased incidence of teenage pregnancies and early marriages in Zimbabwe and the figures have doubled since the beginning of the COVID19 lockdown. In addition, it must be noted that without the support system of teachers and school authorities, several girls are exposed to sexually transmitted infections, unwanted pregnancies and sexual exploitation among other overwhelming effects of COVID-19 (UNFPA, 2020b) ^[24, 25]. A report by World Vision on

COVID19 Aftershocks-Access Denied (2020) ^[29], states that school cessations during crises can lead to upsurges in teenage pregnancy up to about 65 per cent, as closures result in girls having more time with males than they would be if schools were open and as a result this leads to increased likelihood of involvement in risky sexual behaviour and greater risk of sexual violence and exploitation. The report further states that with more numbers of teenage pregnancies imminent and the policies that prohibit the pregnant girls from school enforced, a projected one million adolescents in sub-Saharan Africa may be unable to return

to school once they reopen again after closures due to COVID-19.

The COVID 19 pandemic was confirmed by World Health Organization (WHO, 2020) [31] on March 11th, 2020 with majority of countries having reported increasing numbers of morbidity and mortality rates. Current evidence amid COVID-19 pandemic also expresses worries about the possible growth in violence against teenagers in sub-Saharan Africa during school closures (Addae, 2020) [1]. Teenagers who get pregnant during COVID-19 pandemic are likely to be at an increased risk of complications in maternal and neonatal outcomes as a result of interruption of maternity care (Robertson *et al.* 2020) [21]. Therefore, there is a need of coming up with strategies to protect the teenage girls as the COVID-19 pandemic continues and these must be urgently given a priority (Murewanhema, 2020) [8]. Meanwhile WHO had recommended that in order for nations to control the spread of COVID 19 virus the stay home policy which is known as COVID 19 lockdown as a mitigation measure has resulted in huge economic losses, disruption of the 'usual' physical and social contacts as well as an increase in teenage pregnancies (WHO, 2020) [31].

Problem statement

There are unmet needs that have challenged teenage girls who have fallen pregnant in the COVID 19 lockdown period. Literature has shown that there has been a sudden increase in the rates of teenage pregnancies, the world over during the COVID 19 pandemic. Pregnancy in this age group is a top cause of maternal morbidity and mortality (Murewanhema, 2020) [8]. There is no documentation on

experiences of pregnant adolescent girls during this COVID19 lockdown period.

Objective

The main objective is to have a critical analysis of the concept of COVID 19 lockdown teenage related pregnancy so as to develop strategies and policies that ensure the minimization of teenage pregnancy during a crisis time like the COVID 19 pandemic lockdown.

Significance of the concept

In depth description and analysis of the concept will help policy makers to come up with strategies and policies on adolescent sexual reproductive health so as to offer contextual mitigation measures to adolescent girls to avoid a sudden upsurge of teenage pregnancy during times of lockdowns.

Aim of the concept analysis: The main aim of this article is to analyse the COVID 19 lockdown related teenage pregnancy in terms of its antecedents, attributes and consequences for the purpose of developing strategies, measures and a policy in preventing the upsurge of COVID 19 lockdown related teenage pregnancy.

Literature review

Literature search was done from 08 January to 18 January 2021 and 20 articles were considered for review and of these only 9 articles were selected for exploration. Google scholar and PubMed were the only search engines that were used to find the literature.

Table 1: Show the definition of attributes

Author	Source	Definition	Antecedents	Attributes	Comments
Murewanhema (2020) [8]	Journal	Pregnancy in a girl younger than 20 years	Poverty, Rape	School dropout	Focused on COVID19 implications on adolescent girls
Pandey (2020) [13]	PubMed	Nil	Early marriage, Sexual exploitation of girls	Stress	Focused on exploration of COVID19 lockdown implications.
Shah <i>et al.</i> (2018) [22]	Google scholar	Pregnancy in the girl 10-19 years of age	Nil	Nil	Focused on factors associated to teenage pregnancies and consequences.
Haider <i>et al.</i> , (2020) [5]	Journal	lockdown is defined as the measures or actions intended at minimizing spread of COVID-19 and these are forcefully implemented or applied, universally to a general population and it encompasses certain limitations on the usual form of social and economic pattern	Nil	Nil	
Soba (2020) [15]	PubMed	Nil	Failure by the governments in some developing nations, to implement the right measures aimed at dealing with the issue of teenage pregnancy, closure of schools due to COVID 19 pandemic.	Teenage pregnancy related to COVID 19 lockdown measures, Lack of concentration on school work	Focused on teenage pregnancy a major challenge in the educational system during COVID 19 lockdown
Author	Source	Definition	Antecedents	Attributes	Comments
Aras (2020) [2]	Journal	Nil	Increase of gender based violence during COVID 19 lockdown	Covid-19 lockdown related teenage pregnancy	Focused on consequences of COVID19 lockdown globally
UNFPA	Google	Nil	Economic stress, loss of family	Financial pressure	Focused on COVID 19

(2020a) [24, 25]	scholar		care due to quarantine or hospitalisation, death of a care giver, rising economic uncertainty, diminishing livelihoods at household level		and young girls vulnerability to teenage pregnancy and child marriage
(Raman <i>et al.</i> , 2020) [19]	Google scholar	Nil	Lack of access to birth control, sex education	Covid-19 lockdown teenage pregnancy	A child's rights based response to COVID19
(Riley, 2020) [20]	Journal	Nil	SRH problems for teen girls are overlooked and prioritised in times of humanitarian crisis.	COVID19 lockdown related pregnancy	Focused on the implications of COVID-19 lockdown on the Adolescent and Sexual Reproductive Health and Rights

Methodology

The Walker and Avant's (2011) [27, 28] process is the method that was used for this concept analysis. This process is comprised of eight steps and following this procedure enables one to critically scrutinize the basic fundamentals of the concept and as a result it assists in the development of a constant working definition that validates the concept in clinical area in the following way: Choosing a concept; Deciding purposes of the analysis; Finding the usages of the concept that is being discovered; Identifying the important attributes; Coming up with a model case, borderline case and a contrary case; Finding out what are the antecedents and the consequences and lastly determining the defining empirical referents.

Definition of Covid-19 lockdown teenage pregnancy in literature

COVID-19: is a new disease of caused by corona virus, and 2019 is the year the disease was first detected. COVID-19 is a severe acute respiratory syndrome ailment (WHO, 2020) [31]. In addition, other authors say that COVID-19 is the illness that manifests as a result of infection by the corona virus, which began in China Wuhan in December 2019 (Pan *et al.*, 2020) [12]. In this concept analysis we define COVID 19 as a disease caused by the corona virus which emerged in 2019.

The COVID 19 lockdown has been broadcasted worldwide to minimize the transmission of COVID-19. Nonetheless, the word 'lockdown' is not clearly defined and people comprehend it in different ways. Haider *et al.*, (2020) [5] defines lockdown as interventions aimed at decreasing the spread of COVID-19 that are compulsory and imposed on everybody in the population and this involves certain restrictions on the usual way of life. Additionally Collins dictionary, states that a lockdown is "the imposition of tough restraints on movement and this includes, social relations, and access to public areas." Lockdown is a strategy in which persons are not allowed to move from certain places in a bid to reduce the exposure of contracting the disease. In this concept analysis, COVID 19 lockdown, are the measures that have been laid down by the government to curb the spread of COVID 19 and these include banning of public gatherings like weddings, parties, closure of schools and universities, restricted movement of people, with limited people attending funerals and operation of essential services.

Teenage pregnancy is defined by the United Nations

Children's Fund (2020) [26] as getting pregnant in age range of 13–19 years old. However, in everyday speech the term teenage pregnancy is often used to describe young women who become pregnant when they are teenagers or teen girls, and this definition differs worldwide (Cook & Cameron, 2015) [4]. Furthermore, pregnancy in a girl child who is between 10-19 years is called teen pregnancy (Papri *et al.*, 2016) [14]. The World Health Organization (2020) states that adolescent girls as those with ages between 10 to 19 years. In this age-group, children have different levels of emotional, physical as well as psychological development, attracting diverse deficiency needs. Adolescence is a period which could be characterised by deficiency needs; of bodily comforts in a deprived environment; of insecurity and loss of guidance in dealing with lack of finances and poverty; of isolation, loneliness and neglect; and psychosocially, of battling with low self-esteem and fear of rejection, and all these emanate from basic needs as espoused by Maslow (Huitt 2017) [6]. These needs influence critical thinking processes required for decision making and acquisition of negotiation skills.

Working definition

In this concept analysis, COVID 19 lockdown related teenage pregnancy is any pregnancy of a girl who is 19 years and below and the pregnancy occurred during the COVID 19 lockdown period of April 2020 to date.

Antecedents

According to Walker and Avant (2005) [27, 28] antecedents are those occurrences or incidents that must be present for the concept to occur. The key antecedents to COVID 19 lockdown related teenage pregnancy from reviewed literature, are as follows:

Sexual exploitation

This is a type of sexual abuse. During this time of COVID19 national lockdown, teenagers are coerced into indulging in sexual actions by people close to them for example relatives, neighbours, tenants and are given small tokens like money or gifts.

Early marriage

In some areas of the country due to the economic pressures brought about by the COVID19 lockdown measures some parents or guardians have decided in permitting their young girl children to marry before they reach 18 years old.

Prolonged school closures

This has made the young girls idle and redundant and therefore they explore in sexual activities.

Economic stress

COVID 19 lockdown measures has greatly reduced the parental income as some parents have stopped going to work especially those in informal employment and as a result families cannot sustain to have decent meals. This has pushed some teenagers to exchange sex for food.

Loss of family care due to hospitalisation or quarantine

As part of the management of COVID 19 parents find themselves having been hospitalised or quarantined this has negative implications on the welfare of teenage girls in that parental care is compromised. It is at this stage that teenagers tend to be naughty and end up engaging in sexual activities which could lead to teenage pregnancy.

Lack of access to birth control

The imposed movement restrictions on people in general during the COVID 19 lockdown affects teenagers in a negative way as they cannot leave homes to go to a health facility. The majority of teenage girls cannot tell their parents that they are now sexually active as a result they cannot verbalise their need for a birth control method like contraceptive pills.

Lack of sex education

This is mainly enforced in schools through sexual health reproductive programs for adolescents. When schools are closed like it is for COVID 19 lockdown, teenagers will miss this form of education despite the fact that some radio stations have such programs it is a common tendency that teenagers will be shy to listen to such information in the presence of adults at home.

Shortage of oral contraceptive tablets in some facilities in the country

It is common that sometimes sexual reproductive health matters are forgotten in humanitarian crisis times and in this case health authorities are focusing more on COVID19 matters and the shortage of oral contraceptives is overlooked.

Death of a care giver

COVID 19 is killing mainly adults who are parents and guardians in their families and as a result it leaves teenagers even more vulnerable to teenage pregnancy.

Failure by government in implementing stringent contextualised policies

That heavily punishes the perpetrators of teenage pregnancies in times of national crisis like the COVID19 lockdown.

Poverty

Government should identify and help poverty stricken communities or families with food hand-outs to avoid girls being exploited in exchange of food during COVID19 lockdowns.

Peer pressure

Teenagers are at a critical stage of life by nature as they encounter bodily changes. As they find themselves lonely and bored during the lockdown period they find themselves in a position whereby they engage in experimental sexual activities.

Significant attributes

Major attributes of a concept are the features that appear frequently in the studies or articles and are constantly existent when the concept happens (Walker & Avant, 2005) [27, 28]. The most important attributes for COVID19 lockdown related teenage pregnancy were deduced from the definition of the concept itself and this involved the identification of the characteristics that are related to the concept. Generally it must be remembered that a concept analysis comprises a number of attributes; however, one has to identify the attributes that are valid for the assessment of the concept. The attributes are critical features that assist to separate one concept from the other (Walker & Avant, 2005) [27, 28]. The physiological changes that are brought by pregnancy are nausea and vomiting and this is commonly known as morning sickness although this can occur throughout the day, to include intense displeasure of eating some foodstuffs like meats or oily, fried up foods. Other manifestations of pregnancy are painful nipples or breasts, exhaustion, frequency, being moody and feeling of being lightheaded among others. In this concept analysis teenage pregnancy attributes would be, pregnancy and its physiological changes as stated above, stress, anxiety, school dropout, social isolation, social rejection and financial pressure.

Stress

Pregnant teenagers have increased stress levels and this sometimes leads to psychological problems and could manifest as depression or suicidal tendencies as one fails to cope with the interrogation that comes with the pregnancy. The actions that teenagers assume in reaction to the pressure of motherhood and parenting may disturb their health, and thus influencing their parenthood capabilities as well as putting their offspring to risks such as child abandonment or child abuse (Kaye, 2008) [7].

School dropout

A common occurrence as in some countries pregnant teenagers are expelled from school. This leads to the teenager failing to complete her schooling as a result it leads to lack of empowerment and poverty as she fails to secure a decent job later in life. In Zimbabwe the government has announced that all teenagers who are pregnant during this COVID19 pandemic can go back to school however, research shall reveal how many will take the offer.

Anxiety

Teenagers are always anxious about their body changes developmentally and it will increase during pregnancy and more so about the outcome of pregnancy.

Financial pressure

Teenage pregnancy brings with it a lot of financial pressure as the teenager herself has no financial capacity to cater for the baby clothing or the hospital antenatal bookings and

therefore, they have to rely on their parents and guardians for assistance. During this COVID19 lockdown period most parents have low parental outcome and therefore this becomes a cause for concern.

Social rejection and social isolation

The community regard teenagers who fall pregnant as immoral and as a result these teenagers will tend to hide

themselves from people in general as well as peers and this often leads to depression as they lose contact with friends and many end up abusing drugs.

Diagrammatic representation of defining attributes of the concept

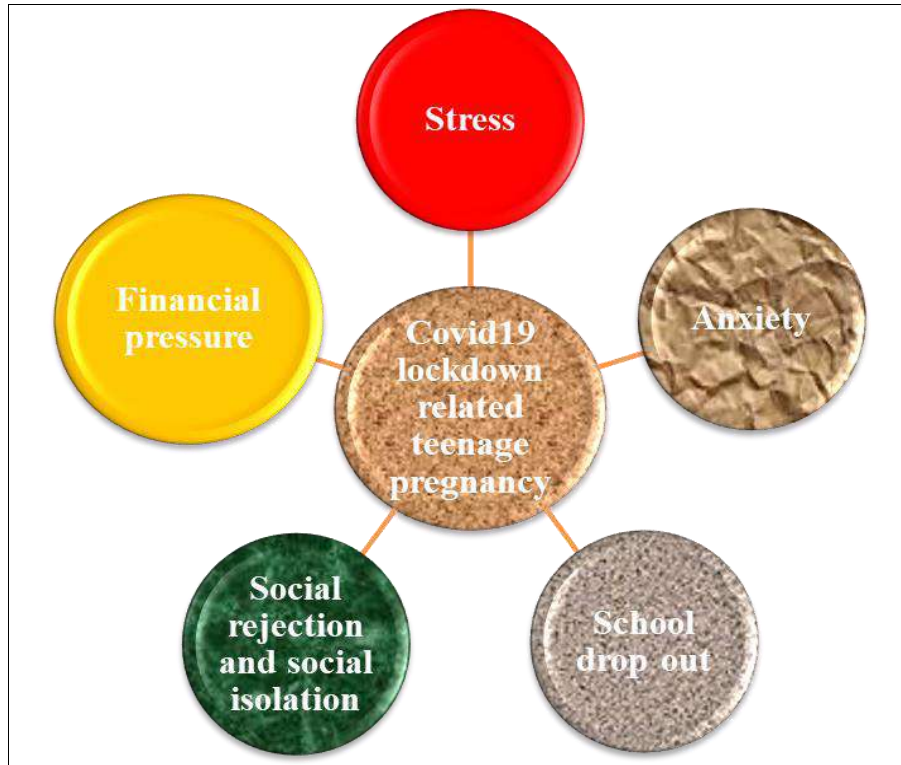


Fig 1: Doubled since the beginning of the COVID19 lockdown

Consequences

Psychosocial consequences

Pregnant teenagers in most instances suffer psychologically and socially and this results in depression and self-isolation. This comes about due the consequences of rejection by the partner, parents or guardian and this happens more if the teenager is unmarried. A lot of studies show that teenagers who fall pregnant before they reach the age of 18 are more at risk to suffer violence in a marriage or in a relationship (Wodon *et al*, 2017) [18]. Teen pregnancy, often forces many girls to leave school prematurely despite the fact some countries have adopted a policy of not expelling these pregnant teenagers from school during the COVID 19 crisis, however, when this happens, it makes a negative impact on the girl’s future as their education is jeopardized leading to illiteracy and a reduction in employment opportunities (Plan International, 2020b) [16, 17].

The COVID 19 Lockdown puts a lot of teenagers at risk of further domestic violence, accompanied by a rise in anxiety and stress levels, and this leads to mental health problems like suicide ideations (Octavius *et al*, 2020) [10].

Online lessons that have currently been seen as the only option available to ensure that children learn during this COVID19 crisis diminishes the learning loss brought about by school-closures on the other hand those in rural areas or those from poor backgrounds are unlikely to benefit from the online lessons because of digital under development. As

a result they continue without any form of learning and hence leading them to miss school for good as they might end up being forced into child marriages. Additionally, the more these teenagers do not get supervision, for those with access to internet, it means that they are at an increased risk to cyber-bullying and end up exploring pornographic material on the internet and are exposed to global norms on sexuality and begin to question social and cultural norms that impact sexual behaviour in society. This further makes them to have loose morals and hence a rise in teenage pregnancy becomes an outcome.

Consequences in health

Early pregnancies amongst adolescents result in severe negative health implications on teen mothers and their children. Some studies have reported that pregnancy and delivery complications in ages 15–19 years globally are the top most causes of death in this age group, more so, this is mostly evident in developing countries and this accounts for about 99% of world’s maternal deaths for women in the age category of 15-49 (WHO, 2020) [31]. Teenage mothers are at an increased risk for eclampsia, obstructed labour, sepsis and other infections compared to their counterparts between 20–24 years (World Vision, 2020) [29, 30]. In this regard since Zimbabwe is in the category of poorly resourced countries, it is a cause of concern to note that the hospitals have inadequate medical supplies to cater for the COVID 19

patients; as a result the country's burdened health system is further challenged financially as it tries to save the lives of these pregnant teenagers and sadly some end up losing their lives. Furthermore, it has been reported that about 3.9 million backyard abortions in adolescents aged 15–19 years are carried out yearly and this contributes to maternal mortality, morbidity and other complications (WHO, 2020) [31]. During this COVID 19 Lockdown it has been reported as well that abortions among these teenage girls has increased (Plan international, 2020a) [16, 17]. Children delivered by girls below 20 years old are at a greater risk of having a birth weight below 2500g, being delivered prematurely and having complicated neonatal outcomes (WHO, 2020) [31].

COVID-19 lockdown has an increased risk of poor nutrition to most families. Having an adequate nutrition in utero and even after delivery up to about 5 years, a child is assured of a good physical and cognitive development and this has long-lasting effects in the health status of an individual (Nyaradi *et al.*, 2013) [9]. Therefore, the economic hardships brought about by COVID19 lockdown indeed pose a health risk to adolescents and their children.

Discussion

The purpose of this paper was to analyse COVID19 lockdown related teenage pregnancy in terms of its attributes, antecedents and consequences so as to develop strategies and a policy to minimise the occurrence of COVID19 lockdown related teenage pregnancies. The lockdown in general has brought with it economic and social distress among youngsters and adolescents and this has put them at an increased risk for domestic violence and sexual exploitation. Furthermore intimate partner violence is a cause of concern during this crisis as teenagers find themselves with unintended pregnancies. As part of the COVID19 lockdown measures, majority of girls find themselves confined with those that abuse them and at the same time it becomes difficult to seek health services and their health is greatly affected (UN Women, 2020) [23]. Information from literature revealed that most scholars focused on aspects that are related to the implications of COVID 19 on adolescents and young women. There was a gap on the attributes of COVID 19 lockdown related teenage pregnancy despite the fact that many antecedents were highlighted as well as the consequences of teenage pregnancies during this crisis. In addition, literature defined COVID19 lockdown and teenage pregnancy separately and the researcher did not find a complete definition of COVID19 lockdown teenage pregnancy. Despite this, many articles expressed concern over lack of stringent measures or policies that could be contextualised and be implemented in times of crisis to reduce teenage pregnancies related to COVID19 lockdown, especially in identifying the perpetrators and to see that justice prevailed.

Cases

Walker and Avant states that a model case exhibits all the significant attributes of a concept. That is, the model case must be an ideal case. An ideal case encompasses all attributes or traits of the concept (Walker & Avant, 2011) [27, 28].

Model case

Sibongile, a 16 year old girl stays with her mother and they rent a 2 roomed house in the high density suburb of Bulawayo. Her mother is a single parent and is a vegetable vendor. Of late her mother has noticed that her daughter is not as happy and as jovial as before. She now prefers to just spend most of her time sleeping. She denies any chances of feeling unwell. The mother then gets suspicious and takes Sibongile to a local clinic for examination. It is then discovered that Sibongile is pregnant as the pregnancy kit tests positive. Her mother is disappointed as this was her only daughter and had high hopes she would finish her school and one day secure a good job. Sibongile was doing her O level and she refused to go and write her examinations in December 2020 citing that her peers and teachers would laugh at her and eventually she became a dropout from school. Sibongile's partner denied responsibility of the pregnancy and her mother is having challenges in raising money to get her pregnancy registered at the hospital. Sibongile is now stressed and very anxious about the outcome of her pregnancy and more so with the fear of COVID 19 infection as she tries to figure her way to a possible solution. Her friends have somehow gotten the news that she is pregnant and they are now avoiding her as she does not receive any messages or calls from them.

This is an ideal case because it contains all the attributes of the concept. In this case Sibongile is pregnant in this COVID 19 era, had financial challenges, was stressed and anxious, dropped out of school and had social isolation and social rejection.

Borderline case

Cases that are said to be borderline are comprised of some of the describing attributes in the concept, though they cannot all be found.

Susan an 18 year old girl presents at a local clinic in the company of her boyfriend. She is 4 months pregnant and she is a university student who is in her first year. Susan did not plan her pregnancy and when her parents discovered about the pregnancy she was chased away from home and went to live with her boyfriend. She is afraid even to visit some of her relatives as she is not sure how they will react to her, but she continues with her education. She is stressed that her mother does not want to see her and very anxious who will help her with the baby after delivery. Her boyfriend is very supportive as he has paid for hospital fees for the antenatal booking and he has given her the reassurance that he is working hard to raise money for lobola.

This is an example of a case that is said to be borderline because it contains some attributes of the concept whilst others are not there. In this case Susan is not a school dropout as she continues with her studies at the university, she has the financial support from her boyfriend however she is stressed that her parents have chased her away from home. She is also isolating herself as she is not sure how they will respond to her.

Contrary case

A contrary case is a case that is directly in contrast with an ideal case.

Mavis a 19 year old girl who finished her O levels 2 years ago and is currently working at a local supermarket has just

got married. She comes to the health facility in the company of her husband. She is 5 months pregnant and she has come for her 3rd subsequent visit. Mavis is excited about the pregnancy and that soon she will have her 1st baby. Her parents, in-laws and friends are busy organising a baby shower for her and this will boost her preparation with the baby clothes. Mavis has become a role model to her friends because she got married before falling pregnant and they constantly visit her at her new place of residence. She has recently gone for an ultrasound scan and she has been told that her baby is a girl. She is very excited about the news.

This case is a contrary one because it is directly the opposite of an ideal case. Although Mavis is a teenager, she is working and has financial support of her husband and she is excited about the pregnancy and is looking forward to welcome her daughter. Her parents are also happy about the pregnancy since she is already married and they are organising her baby shower (welcoming party). Her friends are supportive and they come and visit her.

Significant empirical referents

These referents exhibit the manifestation of the concept itself (Walker and Avant, 2005) [27, 28]. Therefore the defining attributes of the Teenage pregnancy during COVID 19 Lockdown concept are abstract, so we need empirical referents to make the concept measurable. In this concept analysis, the empirical referents are a positive pregnancy test on a girl who is 19 years and below, (antenatal booking, missed menstrual period can be measured if the teenager notices an absence of her menses on the days she expects to have them. To assist with this a missed period online calculator can be used, this calculator usually predicts the menstrual period for the next three months from the last menstrual period, and hence it is easy for one to notice that they have missed a period, an ultrasound scan can be done to detect the pregnancy). Selected articles included stress, anxiety, school dropout, social isolation, social rejection and financial pressure to the empirical referents.

Implications

This concept analysis on COVID 19 lockdown related teenage pregnancy clearly established antecedents, attributes and consequences of the concept. Defining attributes, antecedents and consequences of COVID 19 lockdown related teenage pregnancy facilitates research on problems identified such as the teenage girls' experiences and their own perceptions. The research outcome will therefore, give more meaning and provide evidence based preventive strategies and a policy can be developed to help teenagers not to be victims of teenage pregnancies in cases similar to this COVID 19 lockdown crisis. To those that do get pregnant, management protocols are established to reduce the maternal and neonatal mortality and morbidity.

Recommendations

Community involvement is key to overcoming this crisis and this involves working with parents, caregivers, teachers, faith leaders and adolescent girls themselves who know the situations and challenges they faced with regards to their sexual health during the COVID19 Lockdown period. It must be put into consideration that never before has such a lockdown happened in recent years in the country

or even in the sub-Saharan region and therefore there is need for a thorough and rigorous analysis regarding further research so that contextualised mitigation measures are crafted to avoid a scenario of being caught unaware should such a phenomenon occur in future.

Conclusion

The main objective of this concept analysis was to define and examine COVID19 lockdown related teenage pregnancy in terms of its antecedents, attributes and consequences for the purpose of developing strategies and a policy to help curb the upsurge of teenage pregnancies related to the lockdown crisis. The identified antecedents of COVID19 lockdown related teenage pregnancy like the prolonged closure of schools due to the measures implemented to curb the spread of COVID19 and the subsequent idleness and loneliness felt by adolescent girls gives insight to the policy makers to address such plights bearing in mind that teenagers are such a vulnerable group of people as they can easily be manipulated should they continue in an unfavourable environment. The defining attributes which are stress, anxiety financial pressure, social rejection, social isolation, and school dropout give a clear picture of the detrimental effects of the concept of COVID 19 lockdown related teenage pregnancy. In addressing consequences there is need to make a prompt identification of these pregnant girls so that they get medical attention like counselling and those who qualify for the termination of pregnancy are assisted timely and those who progress with the pregnancy to term get specialised medical attention to reduce the complications related to the teenage pregnancy.

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