The Open Public Health Journal
DOI: 10.2174/0118749445422178251226113056, 2026, 19, e18749445422178
ISSN: 1874-9445
1

RESEARCH ARTICLE **OPEN ACCESS**

The Adolescent Learner's Perspectives Regarding the Influence of TikTok on the Prevention of Pregnancy in Vhembe District

Nombulelo Veronica Sepeng[1,*], Fhumulani Mavis Mulaudzi[1], Maurine Musie[1] and Raikane James Seretlo[2]

[1]*Department of Nursing Science, Faculty of Health Sciences, University of Pretoria, Tshwane, South Africa*
[2]*Department of Public Health, Faculty of Health Sciences, Sefako Makgatho Health Science University, Tshwane, South Africa*

Abstract:

Introduction: TikTok is one of the most widely used social media platforms globally, especially among adolescents who increasingly rely on it for health-related information. Given the growing concern of adolescent pregnancy and the role of social media in shaping contraceptive behaviours, this study explored adolescent learners' perspectives on TikTok's influence on pregnancy prevention in the Vhembe District, Limpopo Province. To explore and describe adolescent learners' perspectives on the influence of TikTok in pregnancy prevention in the Vhembe District.

Method: A qualitative cooperative inquiry design was used. A total of 100 adolescent learners (aged 16–19 years; both male and female; Grades 10–12) participated, selected through purposive sampling based on inclusion and exclusion criteria. Data were collected through the Lekgotla discussion method in two high schools and analyzed using Braun and Clarke's six-phase thematic analysis in NVivo version 14. Discussions were conducted in both English and Venda, transcribed verbatim, and backtranslated to ensure accuracy. Data collection continued until no new information emerged, confirming data saturation. Two researchers independently coded the data, achieving consensus through discussion to ensure inter-coder reliability.

Results: Four major themes emerged: (1) home-based concoction recipes used as pregnancy prevention methods, (2) use of other home-based pregnancy prevention methods, (3) home-based pregnancy test recipes, and (4) different types of contemporary contraceptive methods. Findings revealed that adolescents are exposed to both accurate and misleading information on TikTok, with myths such as Coca-Cola-based concoctions perceived as effective despite health risks.

Conclusion: TikTok influences adolescent perceptions of pregnancy prevention, often spreading misinformation and myths while occasionally promoting modern contraceptive awareness. Integrating digital health literacy, stricter social media regulation, and adolescent-friendly sexual health services is essential to counter misinformation and promote evidence-based contraceptive use.

Keywords: TikTok, Pregnancy prevention, Contraception, Adolescents, Misinformation, Digital health literacy.

*Address correspondence to this author at the Department of Nursing Science, Faculty of Health Sciences, University of Pretoria, Tshwane, South Africa; Tel: 012 356 3155; E-mail: nombulelo.sepeng@up.ac.za

Cite as: Sepeng N, Mulaudzi F, Musie M, Seretlo R. The Adolescent Learner's Perspectives Regarding the Influence of TikTok on the Prevention of Pregnancy in Vhembe District. Open Public Health J, 2026; 19: e18749445422178. http://dx.doi.org/10.2174/0118749445422178251226113056

Received: June 18, 2025
Revised: November 18, 2025
Accepted: November 22, 2025
Published: May 22, 2026

1. INTRODUCTION

Although some nations have outlawed TikTok, the platform remains popular worldwide. TikTok has 800 million active monthly users globally and has been downloaded over 2 billion times [1]. It was also the most popular mobile app in 2018 and 2019, outperforming Facebook, YouTube, and Instagram [2]. TikTok was downloaded 315 million times worldwide in the first quarter of 2020, a 58% increase over the previous quarter and the biggest number of downloads received by an application in a period [3]. According to the biggest and most popular social media platforms in South Africa, including TikTok, there are approximately 9 million users of the TikTok app in South Africa [4]. Despite this, the number of TikTok users has increased dramatically, with young people (ages 13 to 24) making up 69% of the platform's user base and using it as a primary means of expression [2, 5-7]. TikTok was primarily used for networking and fun; nevertheless, its widespread use has transformed it into the principal search engine for adolescents and a key potential source of health information [8]. TikTok users can share content through videos, audio, comments, and duets, engaging in debates and interactions on different topics.

According to Yang *et al*., healthcare practitioners and educators use TikTok to provide evidence-based information about various pregnancy prevention methods [9]. The various types of pregnancy prevention methods posted on TikTok by health care providers include injections, contraceptives, oral contraceptives, dermal implants, and condoms [10-13]. Health practitioners may ensure that TikTok users receive reliable health information [9]. However, in some circumstances, any TikTok user, including non-health care professionals or individuals posing as health care experts, yet lacking credentials, may offer contraception advice. As a result, you found TikTok content about using homemade mixtures, such as mixing Coke with Disprin or vinegar. Some videos suggest using Disprin alone as a pregnancy preventive measure. Non-healthcare providers made most of these videos. Content on contraception garnered more attention than health professionals' informative posts. In addition, birth control frequently goes viral on social media sites such as TikTok, with the hashtag #birth-controlproblems reaching over 600 million views [12, 13].

Misleading content shared on TikTok by individuals without medical expertise is concerning, given the platform's audience of predominantly young adults and teenagers. Yee and Simon noted that people choose to utilize contraception depending on the impact they receive from family or friends, particularly through social media [14]. The proliferation of disinformation on TikTok is concerning since adolescents are becoming more comfortable using social media platforms and accessing health-related material on these sites. Zeglin indicated that adolescents resort to the use of social media platforms, including TikTok, because they have questions about sex that are not answered by sex health education programs or their parents [15].

Concerns have been expressed concerning the potential glamorization and misrepresentation of sexual activity and contraceptive use on TikTok, which could alter learner approaches to contraception [16]. The risk posed by misinformation or incorrect contraceptive advice shared on TikTok's influence may lead to unexpected pregnancies, which have serious health consequences for teens. Adolescent pregnancy has been linked to health issues such as fear, anxiety, inadequate coping methods, stigma, and financial restrictions [17].

Addressing adolescent pregnancy is a key commitment under the Sustainable Development Goals (SDGs). Indicator 3.7.2 targets a decline in adolescent birth rates among 10 to 19-year-olds to 1000 women by 2030 [18]. To achieve this, it is critical to raise contraception awareness and promote the exchange of accurate information on TikTok. The researchers collaborated with a local non-governmental organization to conduct a Cooperative Inquiry (CI) study with various stakeholders in developing strategies to prevent teenage pregnancy, as there is an outcry among adolescent learners in Vhembe District [19]. In this article, we aimed to explore and describe the adolescent learner’s perspective on the influence of TikTok in preventing pregnancy in Vhembe District, Limpopo Province of South Africa.

2. MATERIALS AND RESEARCH METHODS

2.1. Study Site and Context

The study was carried out in two schools chosen from Vuwani village, a rural area within the Vhembe district of Limpopo Province, located in the northern part of South Africa. These schools were selected because they partnered with the ISA Mathivha Non-Govermental Organization(NGO) to provide life skills programs aimed at empowering learners in rural communities. Additionally, they were among the schools with higher incidences of teenage pregnancy.

2.2. The Study Design

This study was conducted using a CI qualitative research design. Heron and Reason pioneered CI, a qualitative and participatory approach that shifts research from studying people to engaging in inquiry alongside them [20]. Heron and Reason state that CI methods generally progress through stages that involve both reflection and action [20].

2.2.1. Phase 1 of CI

In the first phase, a group of researchers convenes to investigate a mutually agreed-upon aspect of human activity [20]. This may involve professionals seeking to examine a specific area of practice, individuals aiming to engage in profound personal transformation, or members of an organisation interested in studying its restructuring [20].

In the initial stage of Phase 1, the group reached a consensus on the focus of their inquiry and collaboratively developed a set of questions or propositions they wished to explore. They then planned a method for investigating this central idea through practical experience. Finally,

within Phase 1, co-researchers may establish and agree upon procedures for collecting and recording data from this experience, which included diaries, self-assessment rating scales, audio or video recordings, and feedback from colleagues or clients [20].

The NGO members and researchers recruited key stakeholders to address issues that were currently affecting them. The NGO members enlisted adolescent learners from schools where they conducted life skills sessions. It was observed that these adolescents shared a common interest in addressing teenage pregnancy within their community. Consequently, the learners were invited to participate in the NGO's quarterly meetings, which focus on empowering young people to prevent pregnancy.

In subsequent meetings, researchers, the NGO, and adolescent learners collaborated to define their inquiry, which aimed to explore the need to address teenage pregnancy among learners in Vuwani, Vhembe District, Limpopo Province. One prominent topic raised by the adolescents was the influence of TikTok on pregnancy prevention. A collaborative inquiry group comprising researchers, the NGO, and adolescents was therefore established to explore this topic. The co-researchers preferred a discussion-based approach, which led to the selection of qualitative CI as the methodology.

Accordingly, the Lekgotla conversation was chosen as the data collection method. The Lekgotla is an open forum in Sub-Saharan Africa where Indigenous community members deliberate and reach consensus on community issues [21, 22]. The co-researchers agreed on procedures for collecting and recording data during the inquiry, including bringing notebooks and pens for note-taking, using audio recordings during sessions, and providing feedback at the conclusion of data collection.

2.2.2. Phase 2 of CI

In Phase 2, the co-researchers also assumed the role of co-subjects: they participated in the agreed-upon actions while observing and documenting both their own and each other's processes and outcomes [20]. The use of the Lekgotla conversation was particularly suitable in this context, as it is a context-sensitive method that enables a large group of participants to act as co-researchers in addressing community issues. This approach aligns well with CI, as the participants are considered co-researchers [23].

In this study, the co-researchers engaged learners in the actions they had planned. The second author posed the first question to the learners: "Where are adolescent learners primarily obtaining information about pregnancy prevention methods?" Their responses indicated that TikTok was the main source. The second author then explored the type of information learners accessed on TikTok regarding pregnancy prevention, as well as their motivations for seeking this information on the platform. During data collection, the second author employed probing questions, paraphrasing, and non-verbal encouragement, such as nodding, to facilitate learners' sharing of their perspectives on how TikTok promotes pregnancy prevention.

The first author observed the interactions and took detailed notes throughout the sessions, while other researchers moderated the discussions, ensuring that learners who wished to speak could contribute and debate the topics under investigation. With the learners' consent, audio recording was used to capture the sessions, allowing researchers to transcribe the data accurately after collection.

2.2.3. Phase 3 of CI

Phase 3 of CI is often considered the defining stage of the inquiry method [20]. At this stage, co-subjects become fully engaged with their actions and experiences [20]. They may develop an openness that allows them to perceive events without preconceptions, seeing them in a new light [20]. Their engagement can lead to a deeper understanding, moving beyond superficial insights, or it may take them into unanticipated areas, generating new actions and creative insights [20].

In this phase, the co-researchers were fully immersed in engaging adolescents with regard to their experiences and actions in learning about scientific methods of pregnancy prevention. They encouraged participants to clarify the processes involved in diagnosing and preventing pregnancy, comparing the use of home-based concoctions with contemporary, evidence-based methods.

2.2.4. Phase 4 of CI

In Phase 4, following the completion of Phases 2 and 3, the co-researchers reconvene to present and discuss their practical and experiential data, and to reconsider their original ideas in light of these findings [20]. This process may lead them to refine, reframe, or even discard their initial ideas and generate new questions [20]. For the next cycle of action, they may choose to focus on the same aspects or explore different dimensions of the overall inquiry [20]. The group may also decide to modify or enhance its procedures for action and data collection based on the experiences gained [20].

At the conclusion of the data collection session, the researchers and adolescent learners reflected on the discussions regarding adolescents' perspectives on TikTok's influence on pregnancy prevention. The researchers clarified and corrected any misconceptions the learners held about myths and misleading information related to pregnancy prevention and diagnosis shared on TikTok. During these reflections, the learners acknowledged the importance of using scientifically proven contraceptives prescribed by healthcare professionals to prevent unintended pregnancies. This information was provided at the end of the session to avoid discouraging participants from freely responding to study questions during the discussion of the phenomenon under investigation.

The researchers agreed that the fourth author would liaise with teachers to arrange the next phase of data collection (cycle 2). Additionally, they decided that the data would be transcribed in both Venda and English before being submitted to the last author for analysis.

2.3. Population and Sampling

The study population comprised adolescents who use TikTok and attend high school in a selected village in Vhembe District. Total population sampling was used to select participants, and all 100 participants who use TikTok agreed to participate in the study. The sample size for this study was therefore 100 teenagers who identified as male or female.

2.4. Data Collection

Data were collected using the lekgotla discussion method. The study employed a lekgotla as the main data-collection technique, drawing on group debate and open dialogue in which members collectively discussed the issues presented [23]. A lekgotla is a participatory forum used to deliberate important community matters and to identify practical opportunities for social change [22]. In practice, it brings community members together to examine concerns, positive or negative, or to seek solutions to a shared problem [23]. This approach suited the study because it reflected a participatory action research stance, specifically collaborative inquiry, whereby adolescents engaged in structured discussion to tackle teenage pregnancy in their communities. The second author facilitated the sessions to ensure all attendees contributed and the conversation continued until no new insights emerged. When contributions began to repeat, the facilitator summarized the points and invited further comment; this cycle of summary and reflection was repeated until participants agreed that no additional information remained, thus achieving data saturation. With participants' consent, the lekgotla discussions were audio-recorded. The deliberative process enabled the group to reach consensus on identified needs while recognizing and valuing participants' knowledge and roles.

Before data collection began, it was agreed that the data would be collected in both English and the local Venda language. The team of researchers then requested the second author to lead the debate because she was fluent in both languages. The data was transcribed verbatim. The data, which was provided in Venda, was then translated into English and back into Venda to ensure that the significance of what the participants shared with us during data collection was preserved. A voice recorder was used to capture all the information shared during data collection. Before allowing the adolescent learners to participate in the study, the team of researchers explained the purpose and research topic to the adolescent learners and informed them that the study is approved by the University, the Department of Education and Health. Furthermore, to minimize any feelings of coercion or undue pressure (particularly for young people involved in CI data collection), the researchers also informed the adolescent learners that their participation in the study was voluntary. Adolescent learners were given consent forms to sign before participating in the study, and their parents were given assent forms to give the researcher permission to collect data among their children before participating in the study. Following this explanation and signature of consent forms and assent forms, 100 adolescent learners from selected schools took part in data collecting.

2.5. Trustworthiness

This study adhered to Lincoln and Guba's trustworthiness criteria, which included credibility, dependability, confirmability, and transferability [24]. In this study, credibility was ensured using methodologies such as extended engagement, which included spending time with participants in meetings and workshops, as well as data collection. This strategy allowed them to thoroughly examine and respond to the study questions. In addition, the last author and the other four authors had a meeting to ensure the data's authenticity. Finally, member verification was performed by summarizing the participants' responses following data collection and confirming with the adolescent learners that the information obtained was correct. The adoption of an audit trail in this investigation increased reliability because all study records were saved from beginning to end. Confirmability evaluates the objectivity, meaning, and relevance of the data obtained throughout the study and confirms the results [25]. To ensure objectivity, the last author shared the themes with the co-authors, who served as co-coders, allowing for suggestions on adjustments, and all authors agreed on the themes used to summarize the adolescent's perspectives on the influence of TikTok on pregnancy prevention methods. The outcomes of this study correctly reflect the personal viewpoints of adolescent learners regarding the influence of TikTok on pregnancy prevention because the researchers used direct quotations that were gathered during data collection. A thorough description of the research methodology was provided to ensure transferability. The first author wrote the paper, then shared it with the co-authors for revisions and feedback. All authors accepted the manuscript to be submitted to a journal.

2.6. Data Analysis

Data were analyzed using Braun and Clarke's six-phase thematic analysis in NVivo version 14. Two researchers independently coded the transcripts. Codes were compared, and discrepancies were discussed until consensus was achieved, ensuring inter-coder reliability. Data collection continued until no new information emerged, confirming data saturation. Findings were validated through peer debriefing and member checking to enhance credibility [25].

3. RESULTS

3.1. Presentation of Demographic Data

The study included a total of 100 participants ranging in age from 16 to 19 years. Participants were drawn from grades 10, 11, and 12, reflecting a mix of adolescents in middle to late high school years. Gender distribution showed a slightly higher representation of females (F) compared to males (M), though both genders were well represented across all grades. Religious affiliation among participants was homogeneous, with all participants

identifying as Christian. This reflects a consistent cultural or religious context among the study population. The inclusion of participants across different grades allowed the study to capture perspectives from adolescents at varying stages of high school development (Table **1**).

Table 1. Demographic variables.

Participant ID	Age	Gender	Religion	Grade
P1	17	M	Christian	10
P2	17	F	Christian	10
P3	17	F	Christian	10
P4	16	M	Christian	10
P5	17	F	Christian	10
P6	16	F	Christian	10
P7	16	M	Christian	10
P8	17	M	Christian	10
P9	17	M	Christian	10
P10	17	F	Christian	10
P11	18	M	Christian	11
P12	17	M	Christian	11
P13	18	F	Christian	11
P14	17	F	Christian	11
P15	18	M	Christian	11
P16	18	F	Christian	11
P17	17	F	Christian	11
P18	17	F	Christian	11
P19	17	M	Christian	11
P20	17	F	Christian	11
P21	17	F	Christian	11
P22	18	F	Christian	11
P23	18	M	Christian	11
P24	17	F	Christian	11
P25	18	F	Christian	11
P26	18	F	Christian	11
P27	18	M	Christian	11
P28	18	F	Christian	11
P29	17	F	Christian	11
P30	18	M	Christian	11
P31	17	F	Christian	11
P32	17	M	Christian	11
P33	17	F	Christian	11
P34	18	F	Christian	11
P35	17	M	Christian	11
P36	19	M	Christian	12
P37	19	F	Christian	12
P38	17	F	Christian	12
P39	17	F	Christian	12
P40	19	F	Christian	12
P41	17	F	Christian	12
P42	17	F	Christian	12
P43	17	F	Christian	12
P44	18	F	Christian	12
P45	18	F	Christian	12
P46	18	F	Christian	12
P47	18	F	Christian	12

(Table 1) contd.....

Participant ID	Age	Gender	Religion	Grade
P48	19	M	Christian	12
P49	18	F	Christian	12
P50	19	F	Christian	12
P51	18	F	Christian	12
P52	19	M	Christian	12
P53	18	F	Christian	12
P54	18	M	Christian	12
P55	19	F	Christian	12
P56	18	F	Christian	12
P57	19	F	Christian	12
P58	17	M	Christian	12
P59	19	F	Christian	12
P60	18	M	Christian	12
P61	19	F	Christian	12
P62	19	M	Christian	12
P63	17	M	Christian	12
P64	18	M	Christian	12
P65	19	M	Christian	12
P66	18	F	Christian	12
P67	17	F	Christian	12
P68	18	F	Christian	12
P69	18	F	Christian	12
P70	17	F	Christian	12
P71	18	F	Christian	12
P72	17	F	Christian	12
P73	19	M	Christian	12
P74	17	F	Christian	12
P75	19	M	Christian	12
P76	17	M	Christian	12
P77	17	M	Christian	12
P78	17	M	Christian	12
P79	17	M	Christian	12
P80	19	M	Christian	12
P81	17	M	Christian	12
P82	17	F	Christian	12
P83	17	F	Christian	12
P84	17	F	Christian	12
P85	19	F	Christian	12
P86	17	F	Christian	12
P87	19	M	Christian	12
P88	19	F	Christian	12
P89	17	M	Christian	12
P90	19	F	Christian	12
P91	19	F	Christian	12
P92	18	M	Christian	12
P93	17	F	Christian	12
P94	19	M	Christian	12
P95	19	F	Christian	12
P96	17	F	Christian	12
P97	17	F	Christian	12
P98	17	F	Christian	12
P99	19	F	Christian	12
P100	18	M	Christian	12

3.2. Key Findings

Four "key" themes emerged from a cooperative inquiry: home-based concoction recipes used to prevent pregnancy, other home-based recipes for preventing pregnancy, home-based pregnancy test recipes, and different types of contemporary contraceptive methods for preventing pregnancy. These themes were drawn from the responses of the adolescents when answering the questions and follow-up questions regarding the influence of TikTok in the prevention of teenage pregnancy.

3.2.1. Home-based Concoction's Recipes Used as Pregnancy Prevention Methods

Participants reported learning on TikTok about mixing Coca-Cola with vinegar, Disprin, or toothpaste as pregnancy prevention methods. These mixtures were believed to "kill sperm" or "prevent fertilization." However, such information is misleading and poses significant health risks. Each subtheme is described below.

3.2.1.1. Mixing Coca-Cola with Vinegar to Prevent Pregnancy

According to the adolescent participants in this study, combining Coke Cola with vinegar is one of the homemade recipes they discovered on TikTok that can be utilized to prevent pregnancy. Adolescents explained that they regard this mixture as one of the effective methods because it can kill the sperm after sexual activity and prevent pregnancy.

A learner said, *"I was watching another video in TikTok saying that using Coca Cola mixed with vinegar can prevent pregnancy because this mixture can kill sperm after sexual intercourse, the teenage learner said in support of this*."

This quotation was substantiated by other learner who verbalized it as follows: "*after listening to the message on TikTok, I conducted research and discovered that the acid found in this concoction can kill and burn the sperms cells after ejaculation resulting in slow motility of the sperm thus no fertilization can take place, therefore I believe that this concoction may be effective in killing the sperm cells when is taken before sexual intercourse."*

3.2.1.2. Mixing Coca-Cola with Disprin Recipe to Prevent Pregnancy

The study's findings showed that one of the pregnancy-prevention recipes teenage learners discovered on TikTok is to combine Coke Cola with Disprin. Learners felt that although these products haven't been scientifically validated, they believe they can function effectively when combined, as they create a chemical compound that has the potential to destroy sperm. They said that the woman drinking this mixture will cause her body to produce elevated levels of progesterone, which will stop sperm from fertilizing the egg following sexual ejaculation.

The learner said, "*One of the videos I have seen on TikTok explained that mixing Coke Cola with Disprin may prevent pregnancy. I tried it once; I took a Coke Cola and poured Disprin inside, and it made a foam. This indicates that the girl will prevent sperm from fertilizing the egg by drinking this foamy mixture before engaging in sexual activity.* The learner supported this finding and said: "*Yes, drinking this mixture will prevent sperm from surviving inside the female reproductive organ, meaning that when the egg is released, there won't be any fertilization because the sperm will die as soon as they enter the woman's reproductive system*."

3.2.1.3. Mixing Coca-Cola with a Toothpaste to Prevent Pregnancy

Adolescent learners mentioned that one of the videos shared on TikTok for pregnancy prevention is titled, 'Mixing Coca-Cola with Toothpaste.' During data gathering, adolescent students claimed that this combination can be administered as a morning-after pill following sexual activity. A Learner stated that "on TikTok, *they suggested that mixing Coke and toothpaste can be one of the concoctions that a lady can drink in the morning following sexual intercourse.* The other learner backed this discovery by noting, "*On TikTok, they emphasized that a woman must drink this concoction two days after sexual intercourse to prevent pregnancy; otherwise, she will fall pregnant.*"

Although the adolescent learners justified that these concoctions are effective in the prevention of pregnancy before and after sexual intercourse, this highlights that information shared on TikTok about pregnancy prevention can be misleading, resulting in unwanted pregnancies and potentially contributing to high rates of adolescent pregnancy.

3.2.2. Other Home-based Prevention Methods

Learners described using newspaper ink, water, soil consumption, and drinking vinegar as alternatives to prevent pregnancy. These practices reflect myths perpetuated by misinformation on TikTok. This theme is justified by three sub-themes: black ink-coloured water from a newspaper, drinking vinegar, and soil consumption to prevent pregnancy.

3.2.2.1. Black Ink-Coloured Water from a Newspaper to Prevent Pregnancy

This study discovered that drinking blank-ink colored water from a newspaper can be used as a home-made recipe to prevent conception.

A learner explained it this way: "*You boil the newspaper until the water is covered in black ink because the newspaper contains chemicals, then wait for it to cool before drinking, and when the woman drinks this water, she will not become pregnant*.

3.2.2.2. Eating Soil as a Preventative Method of Pregnancy

One of the students remarked that she noticed on TikTok that soil is one of the preventative measures that a woman should eat to prevent pregnancy. During data collection, this learner stated: *"One of the things I have*

seen on TikTok is that even the consumption of soil can prevent pregnancy, but I am not sure how."

3.2.2.3. Drinking Vinegar as a Preventative Method of Pregnancy

Another significant subtheme that emerged during data collection was drinking vinegar as a pregnancy-prevention strategy. During data collection, students discussed on TikTok, they explained how vinegar can be used as a morning-after pill as a contraceptive after sexual intercourse. The adolescent student stated, "*I've also seen on TikTok that vinegar can be used to prevent pregnancy because a woman can simply drink it after sexual intercourse and it will kill the sperm, resulting in no fertilization.* The other learner expressed similar feelings, stating that *"I have also seen that drinking vinegar before having unprotected sex can prevent pregnancy because it will make the womb too acidic for sperm to survive."*

The quotations above imply that the information shared on TikTok regarding pregnancy prevention is concerning because all these products have not yet been tested for the prevention of pregnancy, and they could result in fatalities, such as poisoning their digestive systems.

3.2.2.4. Home-based Pregnancy Test Recipes

Adolescents described TikTok videos showing how to use salt and urine to test for pregnancy, believing the reaction indicated pregnancy status. These unscientific practices can delay access to proper reproductive healthcare. An adolescent learner reported learning not just about home-based pregnancy prevention on TikTok, but also about a home-based pregnancy test recipe. The adolescent learners believe that a health care expert presented this recipe on TikTok. The learner remarked, "*I saw another medical doctor on a TikTok talking about how to check your pregnancy while at home using salt and water."* In support of this, the other adolescent learned how to utilize this recipe through explaining the process, *"They say you urinate in a glass, and you pour soft salt in water, and the salt should not dissolve because if it dissolves in water, it means you are pregnant."*

According to the quotation above, the learners believe that other TikTokers who are sharing this incorrect information are healthcare professionals. However, there have been reports of people pretending to be healthcare professionals on TikTok. Furthermore, this research demonstrated that these recipes may impede the utilization of health-care systems for pregnancy detection, prevention, and management.

3.2.3. Contemporary Contraceptive Methods

While TikTok also featured content about modern contraceptives, such as oral pills, emergency contraception, and Long-Acting Reversable Contraceptives (LARC), learners noted that such videos often exaggerated side effects, fostering fear and mistrust toward healthcare services. Two subthemes emerged to support this theme. LARC and short-acting contraception methods for pregnancy prevention.

3.2.3.1. Short-acting Contraceptives to Prevent Pregnancy

Adolescent learners reported seeing videos on TikTok instructing people about the usage of emergency pills after sexual intercourse. The adolescent student stated, *"Another strategy of preventing conception on TikTok is taking the morning-after pill after sexual intercourse."* The other answered, *"Yeah, but the problem is that you can't get the morning-after pill for free; you have to buy it at the pharmacy, which is expensive, and occasionally you can still get pregnant after using it, so why should I buy it?"*

They also said that other videos were focusing on the use of oral contraceptives to prevent pregnancy. The adolescent student stated, *"They indicated that you can take oral contraceptives such as Triphasils for pregnancy prevention as prescribed by doctors or nurses at the clinic, and you get them for free."* The other learner indicated that, despite learning about contemporary contraceptives for the prevention of pregnancy on TikTok, nurses' attitudes are preventing them from visiting the clinic for family planning. *"Nurses will treat you badly if you are young and going to the clinic for family planning, so that is why it is difficult for us to go there."*

3.2.3.2. The Use of Different Types of LARC to Prevent Pregnancy

Adolescent learners stated that they learned about contemporary contraceptives on TikTok, including the usage of several types of LARC for pregnancy prevention. In support of this, a learner stated, "One of the things I've learned about pregnancy prevention on *TikTok is the use of implants and Depo Provera injections."* Another student responded: *"On TikTok they indicated that these injections and implants have long-lasting side effects, such as making people obese and infertile in the future, and discouraging people from using them."*

The information provided on TikTok about LARC and short-acting contraceptives to prevent pregnancy aroused debate among adolescent learners. While others thought they learnt about modern contraceptives for pregnancy prevention, others felt that the material posted on TikTok discourages individuals from using them due to the side effects. Although the nurse's attitude on the use of these methods was not broadcast on TikTok, adolescent learners stated that they are hesitant to seek healthcare-related management to prevent pregnancy because of how they are treated by nurses.

4. DISCUSSION

The findings show TikTok's dual influence: it provides access to information about contraception while simultaneously spreading myths and dangerous practices. Adolescents' reliance on TikTok for sexual health guidance reflects gaps in formal sexual education and healthcare communication. The various ways discussed included numerous types of products that can be mixed with Coca-Cola to prevent pregnancy. Although these approaches seemed detrimental to the health of women, adolescent learners thought that they were effective in the prevention

of pregnancy. One of the most striking findings was that the home-based concoction recipe of mixing Coke with other products has the potential to destroy sperm cells before sexual intercourse because these concoctions may be too acidic for sperm cells to survive. In other instances, a home-based concoction recipe of mixing Coke with other products has the potential to increase progesterone levels in the women's bodies, resulting in no fertilization before and after sexual intercourse.

Previous study illustrated that adolescents from other countries, such as Angola, also used Coke mixed with one or two disprins because it was believed from ancient times that coke has contraceptive properties [26]. Despite this, Msira reported that the effects of Coke on pregnancy is a myth or has some scientific fact behind it that is under consideration and yet a topic of debate [27]. Ajayi *et al*. and Misra reported that different types of concoctions were used as methods of emergency contraception after unsafe sex, to date, no proven efficiency of these hazardous practices is reported [27, 28]. The use of chemicals as contraceptives predisposed women to many health complications, such as miscarriages, child learning disabilities, behavioural problems, kidney failures, and brain damage [29].

The adolescents learned about other types of myths and misleading information for preventing pregnancy without mixing them with coke or any other substance. The myth and misleading information seen on TikTok by adolescent learners for the prevention of pregnancy is eating soil, drinking vinegar, and black-ink colored water from a newspaper to prevent pregnancy. Surprisingly, the adolescents believed these methods were effective, although they didn't know how eating soil could prevent pregnancy. Not much has been written about these three myths, and misleading information about the prevention of pregnancy. However, a study conducted in Salford, Greater Manchester, United Kingdom, illustrated that drinking vinegar could be fatal to women's health [30]. Although the study didn't focus on the prevention of pregnancy, it has reported that women died after drinking half a cup of concentrated vinegar to cause a termination of their pregnancy. The victim read online that she could induce an abortion by drinking concentrated vinegar [30]. The ink used to print newspapers is not meant for people to consume because it may affect their well-being. Jadhav *et al* reported that the ink used to print the newspaper consists of components such as lead, naphthylamines aromatic hydrocarbon, and AhR (aryl hydrocarbon receptor) agonist that produce various major individual well-being implications such as neurotoxicity, cardiovascular diseases, kidney diseases, various cancers, liver failure, lung damage, weak bones and even death in cases of extremely high contagion [31].

The adolescent learners indicated that they have also learned from TikTok that using mixed water and salt can be used as one of the home-based pregnancy test recipes. Adolescent learners believe that this home-based pregnancy test recipe of salt and water to test pregnancy was shared by a medical doctor. There are also no scientific publications in this field. However, Wilson of medical news noted that there is no scientific evidence that anything in a person's urine reacts with salt to signal pregnancy [32]. Even before the invention of modern pregnancy tests, people did not normally utilize salt-based tests. According to Wilson, persons who use the home pregnancy test typically add a few drops of urine to a tablespoon or two of salt and wait a few minutes to observe whether the salt or the urine changes [32]. Some claim that pregnant urine causes salt to clump or fizz, while others claim that it turns cheesy or thickens [32]. More generally, the WHO's systematic review of health misinformation underscores that, while social media is capable of disseminating accurate health education, it often becomes a conduit for "infodemics," with misinformation distorting health behaviors across a range of topics [33]. In addition, A population-specific study in South Africa demonstrated that community-level rumors and myths are significant barriers to adolescent girls' uptake of modern contraceptives, reinforcing how misinformation undermines public health efforts [34].

According to Pfender *et al*, they discovered popular TikTok videos that often-framed hormonal contraception and patient-provider interactions negatively, with users frequently discussing discontinuation of hormonal contraception and having no plans to use another contraceptive [35]. The risks and negative effects of hormonal options were frequently exaggerated in comparison to the potential hazards and side effects of nonhormonal alternatives [36]. Sharing misleading information on TikTok regarding these types of contraceptives is worrisome because it may contribute to higher rates of adolescent pregnancy. A narrative review highlights that online contraceptive misinformation frequently exaggerates risks such as weight gain, infertility, and mental health issues, especially for hormonal methods like LARC or IUDs, often portraying them as "unnatural" or unsafe [37, 38].

The persistence and uptake of these myths can be understood through the Health Belief Model (HBM), which posits that health behaviors are influenced by perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy [39]. TikTok content often amplifies perceived barriers to using modern contraceptives (*e.g.*, infertility, weight gain) while promoting perceived benefits of home-based concoctions (*e.g.*, low cost, immediate availability), thereby shifting adolescent decision-making away from evidence-based methods. The viral, anecdotal nature of this content also acts as a cue to action, prompting experimentation with unsafe practices.

Using the HBM, these results demonstrate that misinformation shapes adolescents' perceived barriers and benefits regarding contraception. Through Social Cognitive Theory (SCT), it is evident that TikTok influencers act as role models whose credibility and relatability encourage imitation [40]. Adolescents not only observe these models but also imitate their behaviours, reinforced through vicarious experiences such as anecdotal "success stories."

This explains why learners reported believing in the effectiveness of concoctions, despite the absence of scientific validation. Similarly, Diffusion of Innovations Theory (DOI) explains the rapid spread of myths due to algorithmic amplification of viral content [41]. TikTok's algorithm amplifies novel and entertaining content, positioning influencers as opinion leaders whose endorsement accelerates the adoption of these so-called remedies among adolescent peer networks. Thus, arguing for SCT and DOI, both theories adequately explain the mechanisms through which misinformation is transmitted and normalised in adolescent communities. The study emphasizes the importance of digital health literacy to empower adolescents to critically evaluate online information. Moreover, nurse educators and healthcare providers must collaborate with schools and digital platforms to address misinformation and encourage safe contraceptive use.

The adolescent was of the view that, despite learning about the use of modern contraceptives for pregnancy prevention on TikTok, they do not see the point in purchasing emergency pill contraceptives because they are still not guaranteed to prevent pregnancy. To support this finding, Nuevo-Chiquero and Pino observed an increase in the utilization of emergency contraception in communities where it was accessible through the public health system, resulting in a decline in traditional contraceptive methods [35]. As a result, adolescent learners should be encouraged not to rely on emergency contraception rather than other safe means of pregnancy prevention, such as condoms, triphasic pills, and injections. One of the reasons cited in this study as a hindering factor to the use of contemporary contraceptives for the prevention of pregnancy is the negative attitude of nurses. According to a literature study, adolescents are hesitant to use sexual and reproductive health services because of angry nurses and are embarrassed to visit the clinic for pregnancy prevention advice [35]. Therefore, our study suggests that nurses should be informed about the implications of having a negative attitude towards adolescents when they seek information and health services for contemporary family planning. This would prevent the use of inaccurate, mythical, and harmful information on platforms like TikTok for the prevention of pregnancy."

4.1. Strengths and Limitations

This study broadens our understanding of how adolescents may interpret material provided on TikTok regarding pregnancy prevention. It also demonstrated TikTok's potential influence in leading teenage learners to believe that misinformation and misconceptions can effectively prevent pregnancy. The findings indicate that, due to fabricated side effects posted on the platform, TikTok content may influence health-seeking behaviours, particularly regarding the use of modern contraceptives. Furthermore, the study highlights the importance of regulating health-related content on social media to curb the spread of potentially harmful information that could harm TikTok users' health.

Despite these contributions, several limitations should be acknowledged. First, as a qualitative study, the findings are context-specific and not generalizable beyond the South African regions in which the research was conducted, reflecting potential cultural specificity. Second, the study relied on self-reported perceptions, which may be subject to recall bias, social desirability bias, or selection bias, potentially influencing the accuracy of participants' responses. Third, the study did not include a systematic analysis of the TikTok content itself, and there was no verification of exactly what content participants had viewed, limiting the ability to directly link their perceptions with specific material. Fourth, adolescent learners' interpretations of TikTok content may vary widely depending on individual, cultural, and socio-economic factors, meaning these findings may not reflect the experiences of adolescents in other settings or demographic groups. Finally, because the study focused solely on adolescent learners, it excludes the perspectives of other stakeholders such as parents, educators, and healthcare providers who may also influence how TikTok content is interpreted and acted upon.

CONCLUSION

This study revealed that TikTok exerts a dual influence on adolescent pregnancy prevention. On the one hand, the platform exposes learners to myths and unsafe concoctions, such as mixing Coca-Cola with vinegar, Disprin, or toothpaste, alongside other practices like drinking vinegar, consuming soil, or boiling newspaper ink. These were perceived by adolescents as effective, yet they carry serious health risks and have no scientific foundation. On the other hand, TikTok also provides information about contemporary contraceptive methods, though this is often framed negatively or exaggerated in terms of risks, discouraging their uptake.

The persistence of such misinformation can be explained by the HBM, which shows how perceived benefits, barriers, and cues to action shape health behaviours, and by SCT and DIT, which highlight the role of influencers as models and opinion leaders whose credibility, relatability, and digital visibility accelerate the spread of myths. However, this study also demonstrates that these theories are insufficient on their own, as they overlook structural healthcare barriers, such as negative nurse attitudes, that push adolescents towards unverified digital sources of information.

The findings therefore suggest a need for integrated interventions that address both digital misinformation and systemic barriers to contraceptive services. Strengthening adolescents' digital health literacy, regulating harmful online health content, and fostering a more supportive and non-judgmental healthcare environment are crucial steps. Nurses and other frontline health providers should be sensitized to the importance of adolescent-friendly services to counteract reliance on unsafe digital practices. Ultimately, this study underscores the urgent need for collaboration between healthcare providers, educators, policymakers, and digital platforms to curb the spread of harmful myths and promote safe, evidence-based pregnancy prevention strategies among adolescents. Below, we have outlined the policy implications that may be considered in future research.

- Regulate digital health content collaboratively with social media companies.
- Integrate social media literacy into school health curricula.
- Strengthen adolescent-friendly health services and train non-judgmental nurses.
- Partner with credible health influencers to share evidence-based messages.

AUTHORS' CONTRIBUTIONS

The authors confirm contribution to the paper as follows: N.V.S.: conceptualized the parent for the development of strategies used for the prevention of adolescent pregnancy in Vuwani, Vhembe District in Limpopo Province; F.M.M.: Gathered the data; N.V.S.: Served as the moderator during data collection; and R.J.S.: Led the analysis; F.M.M., N.V.S. and M.R.M.: Co-coded the data; N.V.S.: Took the lead on manuscript writing. The manuscript was revised by all authors and approved in its final form.

LIST OF ABBREVIATIONS

CI	=	Cooperative Inquiry
LARC	=	Long Acting Revisable
NGO	=	Non-Governmental Organization
NRF	=	National Research Foundation
DOI	=	Diffusion Innovation Theory
SCT	=	Social Cognitive Theory
HBM	=	Health Belief Model
M	=	Male
F	=	Female
SDG	=	Sustainable Developmental Goals

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The study was approved under the University of Pretoria's ethical number (188/2023) and the Department of Education and Health (This institution doesn't provide a number but gives us a permission to conduct the study once the study is approved by the University), South Africa.

HUMAN AND ANIMAL RIGHTS

All procedures performed in studies involving human participants were in accordance with the ethical standards of institutional and/or research committee and with the 1975 Declaration of Helsinki, as revised in 2013.

CONSENT FOR PUBLICATION

Participants signed the consent form before data collection, and data confidentiality was maintained throughout the process.

Permission for recording data collection was consented by participants before data collection.

STANDARDS OF REPORTING

COREQ guidelines were followed.

AVAILABILITY OF DATA AND MATERIALS

All data generated or analyzed during this study are included in this published article.

FUNDING

The study was funded by NRF (National Research Foundation) BAAP (reference number: BAAP2204072616), South Africa.

CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

ACKNOWLEDGEMENTS

The researchers are appreciative of the adolescent learners who offered their thoughts on how TikTok influences the prevention of pregnancy. We also thank the University of Pretoria, the Department of Health, the Department of Education, and the village head for allowing us permission to conduct this study in Vhembe District. This research was made possible by the National Research Foundation Black Academics Advancement Programme (NRF BAAP), (BAAP2204072616) and NRF funding for the Ubuntu community model in nursing (0531440620). The views expressed above do not necessarily reflect the views of the funders.

REFERENCES

[1] Iqbal M. Tiktok revenue and usage statistics. 2020. Available from: https://www.businessofapps.com/data/tik-tok-statistics/

[2] Li Y, Guan M, Hammond P, Berrey LE. Communicating COVID-19 information on TikTok: A content analysis of TikTok videos from official accounts featured in the COVID-19 information hub. Health Educ Res 2021; 36(3): 261-71. http://dx.doi.org/10.1093/her/cyab010 PMID: 33667311

[3] Mohsin M, Skills L. 15 Essential TikTok Statistics for Marketers in 2025. 2020. Available from: https://www.oberlo.com/blog/ tiktok-statistics

[4] The biggest and most popular social media platforms in South Africa, including TikTok. 2021. Available from: https://businesstech.co.za/news/internet/502583/the-biggest-and-most-popular-social-media-platforms-in-south-africa-including-tiktok/

[5] Sachs J, Wise R, Karell D. The TikTok Self: Music, signaling, and identity on social media. Preprint 2021.

[6] Haninuna GY, Nayoan CR, Haba Bunga EZ. Effect of Tik-Tok and leaflet media in increasing adolescents' knowledge and attitude about reproductive health. J Public Health Tropical Coastal Region 2023; 6(1): 30-6. http://dx.doi.org/10.14710/jphtcr.v6i1.17709

[7] Kennedy M. 'If the rise of the TikTok dance and e-girl aesthetic has taught us anything, it's that teenage girls rule the internet right now': TikTok celebrity, girls and the Coronavirus crisis. Eur J Cult Stud 2020; 23(6): 1069-76. http://dx.doi.org/10.1177/1367549420945341

[8] Huang Y, Xu P, Xiong Z. Analysis of population competition and user competition between Tiktok and WeChat. Academ J Business Management 2023; 5(12): 116-21.

[9] Yang Y, Adnan HM, Alivi MA, Sarmiti NZ. Unveiling the influence

of tiktok dependency on University Students' Post-COVID-19 health protective behavior. Stud Media Commun 2024; 12(1): 390-400.
http://dx.doi.org/10.11114/smc.v12i1.6625

[10] Döring N, Lehmann S, Schumann-Doermer C. Contraception on youtube, instagram, and tikTok : A content and quality analysis. Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz 2023; 66(9): 990-9.
PMID: 37160419

[11] Stoddard RE, Pelletier A, Sundquist EN, *et al*. Popular contraception videos on TikTok: An assessment of content topics. Contraception 2024; 129: 110300.
http://dx.doi.org/10.1016/j.contraception.2023.110300 PMID: 37802460

[12] Shackleford M, Horvath A, Repetto M, *et al*. An analysis of oral contraceptive related videos on TikTok. AJOG Glob Rep 2024; 4(3): 100364.
http://dx.doi.org/10.1016/j.xagr.2024.100364 PMID: 39077679

[13] Nair I, Patel SP, Bolen A, *et al*. Reproductive health experiences shared on tiktok by young people: Content analysis. JMIR Infodemiology 2023; 3: e42810.
http://dx.doi.org/10.2196/42810 PMID: 37831780

[14] Yee L, Simon M. The role of the social network in contraceptive decision-making among young, African American and Latina women. J Adolesc Health 2010; 47(4): 374-80.
http://dx.doi.org/10.1016/j.jadohealth.2010.03.014 PMID: 20864007

[15] Zeglin A, Lazebnik R. Teaching about contraception: Adolescent attitudes surrounding sexual education. Open Access J Contracept 2023; 14: 181-8.
http://dx.doi.org/10.2147/OAJC.S402443 PMID: 38059115

[16] Nwafor GU, Nnaemeka FO. Influence of tiktok as an edutainment platform on female students' awareness and use of contraceptives. J Adv Res Multi disciplin 2023; 3(3): 65 .

[17] Ntshayintshayi PN, Sehularo LA, Mokgaola IO, Sepeng NV. Exploring the psychosocial challenges faced by pregnant teenagers in Ditsobotla subdistrict. Health SA 2022; 27: 1880.
http://dx.doi.org/10.4102/hsag.v27i0.1880 PMID: 36483505

[18] The colleges of medicine of South Africa. Teenage pregnancy in South Africa: It's everyone's responsibility. 2024. Available from: https://cmsa.co.za/teenage-pregnancy-in-south-africa-its-everyones-responsibility/

[19] Sepeng NV, Mulaudzi FM, Mathivha P, Musie MR, Seretlo RJ. Strategies to enhance sexual health education for prevention of teenage pregnancy in Vhembe District, Limpopo Province: Different stakeholder's perspectives, a co-operative Inquiry qualitative protocol paper. Reprod Health 2023; 20(1): 120.
http://dx.doi.org/10.1186/s12978-023-01669-x PMID: 37596649

[20] Heron J, Reason P. The practice of co-operative inquiry: Research 'with'rather than 'on'people. Handbook of Action Research. SAGE citations 2006; pp. 144-54.

[21] Tsima PS. The Lekgotla way learning and developmental methodology. South Africa: COMETSA GoC International (Pty) Ltd. 2018.

[22] Pienaar AJ. African indigenous methodology in qualitative research: The Lekgotla: A holistic approach of data collection and analysis intertwined. Nursing Research Using Data Analysis. Springer 2015; pp. 57-67.
http://dx.doi.org/10.1891/9780826126894.0005

[23] Rasweswe MM. Lekgotla discussion as a decolonized qualitative methodology: A lesson from a workshop conducted to formulate and verify the strategies in Botlokwa village, Limpopo, South Africa. Int J Qual Methods 2023; 22: 16094069231183591.
http://dx.doi.org/10.1177/16094069231183591

[24] Lincoln YS, Guba EG. Naturalistic inquiry. SAGE 1985.

[25] Polit DF, Beck CT. Nursing research: Generating and assessing evidence for nursing practice. Lippincott Williams & Wilkins 2008.

[26] United Nations Population Fund. Unsafe, unreliable: Dangerous pregnancy prevention methods. 2018. Available from: https://www.unfpa.org/dangerous-pregnancy-prevention

[27] Misra M. A literature review on reckless and hazardous contraceptive practices used since primeval times. Indian J Natural Sci 2022; 13 : 73 .

[28] Ajayi AI, Nwokocha EE, Akpan W, Adeniyi OV. Use of non-emergency contraceptive pills and concoctions as emergency contraception among Nigerian University students: results of a qualitative study. BMC Public Health 2016; 16(1): 1046.
http://dx.doi.org/10.1186/s12889-016-3707-4 PMID: 27716213

[29] Shannon M. Severe lead poisoning in pregnancy. Ambul Pediatr 2003; 3(1): 37-9.
http://dx.doi.org/10.1367/1539-4409(2003)003 PMID: 12540252

[30] Shields LBE, Rolf CM, Hunsaker JC III. Sudden death due to forced ingestion of vinegar. Forensic Sci Int 2016; 266: e23-6.
http://dx.doi.org/10.1016/j.forsciint.2016.06.031 PMID: 27421692

[31] Jadhav NC, Kale RD. Mustard oil thermosets using N-vinyl-2-pyrrolidone as crosslinking agent for scrap paper composites. Polym Bull 2021; 79: 883-904 .
http://dx.doi.org/10.1007/s00289-020-03519-3

[32] Wilson RS. Do home pregnancy tests with salt work? 2020. Available from: https://www.medicalnewstoday.com/articles/pregnancy-test-with-salt#theory

[33] John JN, Gorman S, Scales D, Gorman J. Online misleading information about women's reproductive health: A narrative review. J Gen Intern Med 2024; 40: 1123-31.
PMID: 39511120

[34] WHO. Infodemics and misinformation negatively affect people's health behaviours, new WHO review finds. 2022. Available from: https://www.who.int/europe/news/item/01-09-2022-infodemics-and-misinformation-negatively-affect-people-s-health-behaviours--new-who-review-finds?utm_source=chatgpt.com

[35] Pfender EJ, Tsiandoulas K, Morain SR, Fowler LR. Hormonal contraceptive side effects and nonhormonal alternatives on TikTok: A content analysis. Health Promot Pract 2024; 26(3): 407.: 15248399231221163.
PMID: 38166482 http://dx.doi.org/10.1177/15248399231221163

[36] Nuevo-Chiquero A, Pino FJ. IZA DP No. 12076: To Pill or Not to Pill? Access to Emergency Contraception and Contraceptive Behaviour? 2019. Available from: https://www.iza.org/citations/dp/12076/to-pill-or-not-to-pill-access-to-emergency-contraception-and-contraceptive-behaviour

[37] Nkala Dlamini B, Malatji H. Teenagers' perceptions, utilization, and expectations of sexual and reproductive health services in Ekurhuleni Township, South A: Making services responsive. Int J Health Wellness Soc 2023; 13(2): 127-43.
http://dx.doi.org/10.18848/2156-8960/CGP/v13i02/127-143

[38] Jonas K, Duby Z, Maruping K, Harries J, Mathews C. Rumours, myths, and misperceptions as barriers to contraceptive use among adolescent girls and young women in South Africa. Front Reprod Health 2022; 4: 960089.
http://dx.doi.org/10.3389/frph.2022.960089

[39] Rosenstock IM. The health belief model and preventive health behavior. Health Educ Monogr 1974; 2(4): 354-86.
http://dx.doi.org/10.1177/109019817400200405

[40] Bandura A. Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall 1986.

[41] Rogers EM. Diffusion of innovations. (5th ed.), New York, NY: Free Press 2003.