

NARRATIVE, VISUALS AND UTILITY: EXAMINING THE FILM “PREGNANCY TIPS” AS EDUCATIONAL MEDIA

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ABSTRACT

For many years, films have been used as a means of educating people about public issues. But how film formal elements and narrative styles influence its use as a health education and communication tool has not been researched much. To contribute to addressing this gap, this study engaged 13 health workers in the Ga South Municipal Assembly in the Greater Accra Region of Ghana through semi-structured interviews to examine how the formal features and narrative style of the film “Pregnancy Tips” shaped health workers' acceptance and use of the film for maternal health education. The findings were interpreted through the Technology Acceptance Model (TAM) constructs of perceived usefulness (PU) and perceived ease of use (PEU). The study found that the film's direct educational style, familiar local food items, a relatable midwife as the message source, and the use of threat and efficacy appeals, which were mainly presented in Twi and supported by English narration, made it easy for health workers to use the film. Health workers also reported workload reduction because they delegated aspects of their educational work to the film as they performed other duties. They also used the film to reinforce their professional authority. The use of Twi language and the focus solely on nutritional messages were mentioned as limitations. The study contributes in-depth, context-specific insights into how film functions as an educational technology and exposes some contextual issues that should inform future production and use of films for health education in Ghana.

Keywords: Educational films, cinematic elements, health education film, technology acceptance model, postproduction research.

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INTRODUCTION

The importance of film media in public health education is globally recognised (Botchway *et al.*, 2017; Mutanda *et al.*, 2017; Romli *et al.*, 2024) and its adoption as an educational tool continues to attract significant research interest (Adam *et al.*, 2022; Grilo *et al.*, 2022; Xiao *et al.*, 2024). Many studies in the Global South have shown that films offer a cost-effective means of delivering health education, effectively overcoming linguistic and geographic barriers (Adam *et al.*, 2023; Obong, 2023; Sowa *et al.*, 2018). In other studies, films have proven to be effective in enhancing health literacy and influencing behavioural changes (Boynito *et al.*, 2024; Deshpande *et al.*, 2023; Yang *et al.*, 2025).

Despite these benefits, the academic discourse on how films are used for education is dominated by what Botchway *et al.* (2017) described as ‘proximal outcomes’ (p. 260). This means that the focus has been on measuring the impact of films on knowledge and understanding. In Ghana, the existing literature follows the global trend of examining films’ ‘proximal outcomes’ as health education tools. Available studies indicate that films enhance knowledge, perceptions, awareness about cervical cancer and willingness to undergo a Pap smear test (Ampofo *et al.*, 2020; Drokow *et al.*, 2021; Ebu *et al.*, 2019; Ghadirian, 2022). A study by Akakpo and Akakpo (2024) also found that YouTube medical videos serve as a valuable source of health information in Ghana.

Even though these studies do provide some understanding of the use of films for health communication and education in the Ghanaian context, they have not covered how the formal features and content structure influence how films are adopted as educational media and tools. As a result, the academic discussion on educational film does not adequately consider the role of cinematic techniques, design, and narrative styles in shaping how films operate

as educational technology. But a deeper insight into how these cinematic elements influence the acceptance and use of films as educational media for health education will be valuable to improve practice and policy on public health education in Ghana. It is this gap that this study wants to help bridge by examining how the film “Pregnancy Tips” can function as a form of educational media technology for health education in the context of maternal health education

The film “Pregnancy Tips” is a 10-minute educational resource that features two characters: a midwife who delivers education through narration and a pregnant woman whose illustrative performance visually supports the educational message. The film is structured around three main scenes (see Figure 1- 3). The first scene is the scene on threat, fear, and severity, in which the midwife talks about the dangers of not eating nutritious food, as shown in Figure 1-2. The next scene focuses on vulnerability. This is presented through close-up shots accompanied by the midwife’s narration explaining how any pregnant woman could be in danger. The efficacy scene demonstrates preventive measures by highlighting appropriate and inappropriate foods, balanced meals, water intake, and medication use. The scene concludes with a montage of a joyful pregnant woman in a joyful mood as she directly gazes at the camera (see Figure 3).

Rather than focusing solely on the film’s effectiveness, this study examines the relationship between the film’s ‘system design features’ (Davis, 1987, p. 2), its utilisation, and the contextual factors that shape its use. Therefore, it is guided by the following research question: How do the film’s form and content strategies influence its use as an educational tool among midwives, community health officers, and nutrition officers, here collectively referred to as health workers?



Figure 1: Examples of opening shots.
Source: Studio Practice 2019

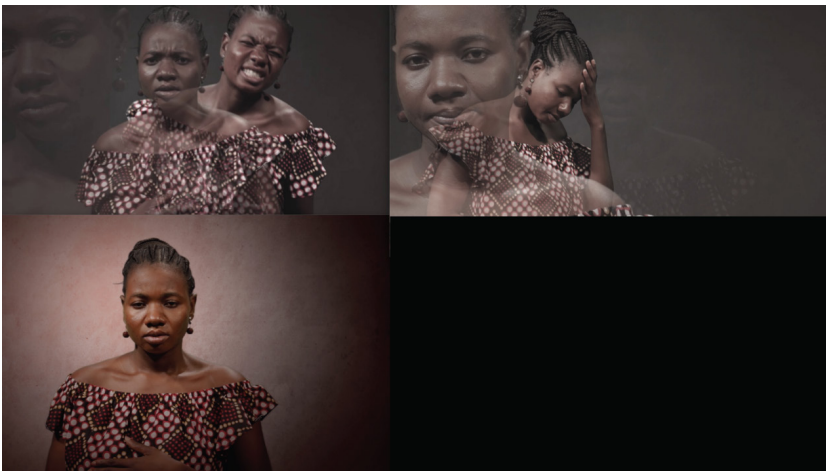


Figure 2: Examples of threat, severity, and susceptibility shots.
Source: Studio Practice 2019



Figure 3: Example of efficacy shots
Source: Studio Practice 2019

This study was motivated by some key factors that may shape the design and adoption of communication media as educational technology. First, post-design evaluation is vital to the design of media artforms intended for education. Such field-testing phases in the production process generate knowledge about users and audiences that can improve the form, content, and functionality (Taherdoost, 2018; Wang & Li, 2024).

Second, in Ghana, several contextual nuances can influence how educational media, such as films, are adopted as tools for public health education (Ebu *et al.*, 2019). Thus, a clearer understanding of the issues related to the use of film in health education is important for strengthening practice and shaping policy, particularly as pressure mounts to meet the 2030 Sustainable Development Goals on health. These contextual concerns, alongside the limited research on how film forms media shape adoption as educational technology, provided the impetus for this study.

Furthermore, Carroll's (2017) definition of technology as a tangible or intangible entity that is "inherently intelligent" and capable of facilitating activity by "primary or secondary

intention," through "rationally-derived knowledge" (p. 18), provides an important conceptual basis for this study. Carroll's theorisation suggests that technology is culturally defined and contextually bounded. From this perspective, educational films can be understood as a form of technology. They are designed through culturally situated audiovisual elements, learning theories, content organisation strategies, and semiotic systems that together constitute knowledge. Educational films are therefore meant to help provide education in ways that shape behaviour. This study therefore aimed to investigate how an educational film narrative features can influence how it is used as media technology among health workers in the Ga South Municipal Assembly in Ghana. This study contributes to knowledge on how cinematic features shape how film media users adopt it as an educational medium for health education and communication.

THEORETICAL PERSPECTIVES

To fulfil the objective of this study, the Technology Acceptance Model (TAM) was adopted as a useful theoretical framework, not to impose coding categories, but to

serve as an interpretive lens through which the experiences of health workers could be understood in context.

The Technology Acceptance Model (TAM), developed by Davis (1987), was used as a theoretical framework for this study. TAM advances that the likelihood of users accepting and using technology is shaped by two primary user beliefs: perceived usefulness (PU), the belief that using the technology will enhance work and productivity, and perceived ease of use (PEU), the belief that how easy it is to use a technology. Davis argued that both perceived PU and PEU are influenced by system design features, which are the physical design structure of a technology (see Figure 4).

However, PEU, which reflects a user's belief about the ease of using a tool or technology and is directly determined by design features, also impacts PU, or the perceived usefulness

of the technology. Together, these factors interact to shape overall user attitudes, ultimately leading to either acceptance or rejection. Over the years, various versions of the theory have emerged (TAM 2, TAM 3, and UTAUT) (Lee et al., 2025; Venkatesh et al., 2003). However, as Lee et al. suggested, the technology acceptance model (TAM) remains the most widely used framework for examining the factors influencing technology adoption. Numerous studies have employed TAM to explore technology use across various fields, such as public relations (Nutsugah & Senanu, 2024), digital payment platforms (Purwanto et al., 2024), e-learning (Salloum et al., 2019) and healthcare (Lee et al., 2025). The continuous use of TAM in research justifies its usefulness in understanding how user perception of a technology, despite some criticisms (Malatji et al., 2020).

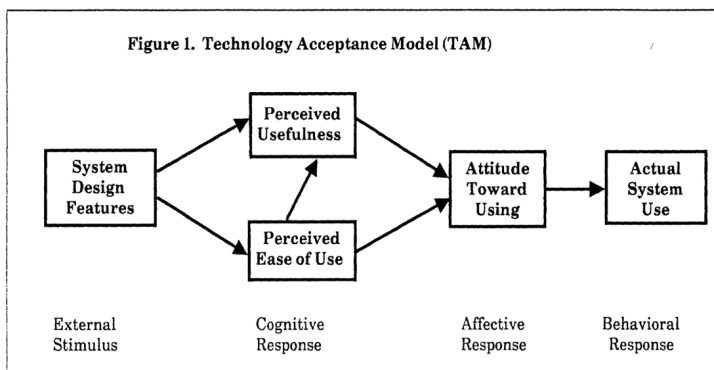


Figure 4: Technology acceptance model proposed by Davis (1987).

Source: (Davis, 1987)

In this study, the technology acceptance model (TAM) was used as an interpretive lens rather than as predetermined coding categories. As illustrated in Figure 4, the design features of this study concern the films' form and content. These encompass cinematic language and codes, characters, visual elements, sound effects, narrative, graphics, and, most importantly, content and persuasive techniques. These elements

define features that can impact PU and PEU. The connection between these factors can shape overall attitude and acceptance, which provides feedback on the question driving this study: How do film form and content strategies influence their use as educational media for educating pregnant women? These insights are important for making reflective judgements about aesthetic decisions and content design during film production, and

they can inform media production practices, especially in health education. This study contributes to the body of knowledge by presenting Afrocentric perspectives on TAM in the context of utilising films as an educational tool by health officers in Ghana.

MATERIALS AND METHODS (METHODOLOGY)

This study employed a qualitative case study design, which enabled a post-production evaluation of the film *Pregnancy Tips* and a close examination of its use as an aid to maternal health education in its natural clinical setting (Creswell & Creswell, 2018). The qualitative approach was useful because it allowed the study to closely examine the experiences of nurses and midwives, who, in this study, are referred to as health workers, to understand how the film's formal and content-related features influenced how they adopted the film as an educational media tool in their daily routines as health educators.

This study was conducted in the Ga South Municipal Assembly (GSMA) in the western Greater Accra Region of Ghana. The peri-urban and rural health facilities of the GSMA provide a diverse context for data collection. Five government facilities were purposively selected: Kokrobite Health Centre, Amanfro Polyclinic, Bortianor Polyclinic, Obom Community-Based Health Planning and Services (CHPS), and Kwame Enum Health Centre. The inclusion criteria were consistent pregnancy and school sessions. Thirteen(13) healthcare officers participated in the study, including midwives, nutrition nurses, and community health nurses. A purposive sampling technique was employed to select healthcare officers who directly engaged with pregnant women during pregnancy and antenatal clinical sessions. Following the principle of data saturation by Guest, Bunce, and Johnson (2006), the sample appeared

sufficient, as no new data emerged after the twelfth and thirteenth interviews. The most experienced participants had 18 years of experience, while the least experienced participants had 10 years of experience.

The research built upon data from the researcher's doctoral study in 2020 by adding further information collected between February and June 2025. This recent data gathering allowed for direct engagement with participants and enabled close observation of the film's use as an educational tool. It also gave the researcher the opportunity to visit each facility multiple times during various pregnancy education sessions, something that was limited during doctoral research due to COVID-19 restrictions

The study collected data through semi-structured interviews. With the approval of the health workers, each interview session lasted between 40 and 60 minutes and was recorded using Otter AI application. The researcher also spent time during educational and antenatal clinic sessions to observe how the film was used in a 'natural setting' by health workers (Creswell, 2013, pp. 20, 40). Through note-taking and photography, the researcher captured unique contextual factors that shape how the film was adopted as educational media.

During data analysis, the inductive analytical approach was employed to generate and organise the codes that emerged from the participants' experiences into themes (Creswell, 2013; Guest *et al.*, 2006). This allowed the researcher to pay attention to the meaning behind the experiences shared by health workers and also look for common patterns across their individual accounts. At the initial stages of the analysis, the researcher read through the transcribed data many times to become familiar with the data. This also helped the researcher to take note of important experiences.

Next, initial codes were generated based on the data, which were then organised into several sub-themes. Finally, four main themes were generated to explain how the film's form and narrative style shaped its acceptance as an educational media tool among the health workers. To ensure that these themes

truly reflected the data, the themes were reviewed and refined. Table I shows the four main themes: the functional value of the film, the film's form and users' experiences, impact on professional practice, and utilisation challenges and suggestions to improve the film for future use.

Table1. Summary of Emergent Themes and Sub-Themes

Theme	Sub themes
Functional Value of the Educational Film	Increased ability to recall and understand health message Standardisation of health message Supported effective Time management
Film Form and Users' Experiences in Educational Practice	The combined use of sound pictures and storytelling Use of Twi language with minimal English; shots of local food items Characterisation and credibility of the midwife Threat and efficacy elements in the narrative
Influence on Professional Practice and Workflow	Time-saving Eliminated the burden of looking for educational materials Reinforced authority and credibility Use of the film as a mediating tool in counselling
Utilisation Challenges and Suggestions for Improvement	Limited language inclusivity Narrow scope of content focus Need for additional maternal health topics Translation into other languages

The study ensured credibility by actively engaging with health workers and continuous reflection on the data and interpretations. In addition, a colleague researcher examined the codes in relation to the data and the themes, which led to adjustments. The researcher compared the transcribed data with the observation data that were taken in the form of notes and pictures (Ahmed, 2024). This also provided an additional opportunity for reflection to ensure that the true nature of participant experiences is presented in the analysis. Because direct quotes were used where appropriate to express participant views, the researcher assigned participants random names to safeguard their identity

and privacy. Finally, based on the technology acceptance model (TAM), the researcher interpreted the findings through the two main constructs of TAM: perceived usefulness, the belief that the film will be useful for participants, and perceived ease of use, how the design features of the educational film influence the usefulness of the film. Approval was obtained from the Ghana Health Service headquarters, the Accra Regional Health Directorate, and the Municipal Health Directorate. Also, health workers voluntarily agreed to engage in the study and were informed that they could stop at any time if they so wished.

FINDINGS AND DISCUSSION

In this study, the aim was to investigate how the form and narrative style of the "Pregnancy Tips" shape its acceptance as a form of educational media technology. The analysis of interview and observation data resulted in four themes, which are discussed below. However, before engaging with the findings in relation to the literature, it is important to state that, as with most qualitative studies, the focus was not to generalise the findings but rather to offer insights into how cinematic form and narrative style can regulate how film could be adopted as educational media technology. It is therefore important that the findings and interpretive claims presented in this study be viewed in the context of a qualitative user feedback study. The sections that follow present the findings and discussions under the four themes.

Functional Value of the Educational Film

Participants' accounts showed that they found the film "Pregnancy Tips" to be a useful educational resource for maternal health education. They mentioned Improved understanding and recall, efficient time management, and message consistency as reasons they found the film valuable to their work. The majority of the nurses and midwives said that the film boosted pregnant women's understanding of how the food they eat every day as pregnant women affects both their unborn babies and themselves. A comment from a nutrition officer captures these recurring views:

The videos made pregnancy education easy. This helped pregnant women to easily remember everything. Everything needed to be discussed is there, especially various food elements. When I engaged with them after each session, they were able to answer questions better than through verbal communication alone. This shows that

their understanding was good (Nutrition Officer 3, personal communication, March 12, 2025)

A midwife officer also explained how the film facilitated the recall of maternal nutritional knowledge. She also said:

Sometimes, pregnant women do not recognise the food item they are referring to; however, when they see it in the video, they remember it. They often say that they know it but do not realise the name, which helps them remember and grasp the message (Midwife 6, February 20, 2025).

Another recurring view that emerged across the dataset was the film's role in standardising and synthesising content to avoid confusing pregnant women. Many participants indicated that given midwives' varying levels of knowledge and experience, inconsistencies can arise in the messages delivered when education is provided through talks, the most common approach. Others also pointed to differences in the sources midwives draw on as a possible reason for variations in messaging. As a result, many recommended having culturally appropriate, curated educational films available to all midwives during health education sessions. For example, one midwife captured this view:

Instead of searching for information from the Internet, which can lead to discrepancies because people access different sources, this content is standardised and comprehensive. It includes all the necessary food items. This reduces the workload (Midwife 2, personal communication, May 19, 2020).

Apart from the recurring views about the films' role in message understanding, recall, and the standardisation of health education messages, the data also revealed a further recurring view, which underscores the films' functional value in clinical settings. This subtheme was unanticipated and, therefore,

surprising. Many participants noted that the films were used to engage clients while waiting for midwives or medical officers to see them. For example, participants described this functional value as a way to mitigate waiting related anxiety among pregnant women during antenatal clinic visits. One midwife provided the following insight:

While waiting in the antenatal shed, we usually show a video on the television. Many pregnant women were engaged in the video and did not notice the long wait until their turn. You could observe the change. This helped manage the anxiety associated with waiting in long queues (Midwife 7, personal communication, March 13, 2025).

From the perspective of the technology acceptance model (TAM), this finding aligns with the construct of perceived usefulness (PU), which proposes that users' acceptance or rejection of a technology is largely shaped by their belief that its use will enhance their work performance and productivity (Davis, 1987; Venkatesh et al., 2003). As the findings indicate, health workers perceived the educational videos as useful educational technologies because of their multimedia format.

This suggests that participants in the study valued educational films more than printed materials, even though printed materials remain the dominant educational resources used during antenatal education sessions (Sokey, 2016; Sokey & Adisah-Atta, 2017).

These findings are consistent with the existing literature on the use of educational videos for pregnancy health education. For example, a recent study by Vandrevalla et al., (2024) found that midwives considered video-based antenatal education effective in empowering pregnant women to address pregnancy related risks and overcome barriers affecting both healthcare providers and patients. Other

studies have also shown that health officers perceive audiovisual education as enhancing understanding and recall (Greuel et al., 2023).

Similarly, videos have been shown to facilitate patient education regarding clinical check-up procedures (Grilo et al., 2022), while in Uganda, video provided health volunteers with additional options for performing their duties (Schneider et al., 2022). This recurring perception of the usefulness of film media and its preference over printed educational materials is consistent with Yang et al.'s (2025) assertion that educational films make it "simpler for patients to understand" health information and help render health education "systematic" and "procedural [and] standardised" (p. 2). Additionally, the findings indicate that films could complement face to-face health education, particularly in rural areas of Ghana, where there is a shortage of qualified health staff.

The Nexus between Film Form and Users' Experiences

Another objective of this study was to understand how the film's design features influenced its uptake as an educational medium. This aim is important for examining how cinematic and content strategies shaped the ease with which films could be used for educational purposes. Educational films combine images, sound, characters, spatial elements, editing, typography, and other multimodal resources to communicate meaning (Alves & Pereira, 2020; Bordwell *et al.*, 2016; Stanković *et al.*, 2018). The deployment of these elements requires deliberate and strategic paradigmatic and syntagmatic choices during production to ensure their effectiveness (Danesi, 2004; Rose, 2016).

In the context of health education, feedback on these design choices is critical to ensure that educational films function meaningfully as a support for health education. In this study, three features emerged repeatedly in

the analysis. These are the predominant use of Twi, alongside the limited use of English to explain Twi words that may be unfamiliar to non-native speakers; the use of familiar visuals, such as local food, and relatable characters; and the incorporation of persuasive message elements such as threat and efficacy.

Generally, the multimedia nature of the films repeatedly emerged as a major reason participants found them easy to use. One community health nurse and one midwife described the relationship between the films' form and their experiences of using them as follows:

Print materials are fine, particularly because they feature appealing images that help illustrate some of the concepts we teach. However, my experience has shown that the use of print materials in education can be challenging. Many of our clients are unable to read; therefore, when you present the materials, you must also explain them. However, using videos makes it easy to see and hear. With this, you will focus more on others with special needs (Community health nurse, personal communication 2, May 19, 2020).

Occasionally, we tried to obtain food items for demonstrations to supplement the materials. But for how long can we do this? This can not be performed at every pregnancy school. However, with this video, the task became easier. They can be displayed every week. They see the midwife speaking to them, and they get to see a variety of fresh food items. (Midwife 6, personal communication, May 19, 2020).

When asked to identify the specific design features that shaped their positive experiences of using the films, health workers pointed to several features. The most prominent was the language for dialogue. One midwife, echoing the views of many other health workers,

described the film's choice of language as follows:

The use of the Twi language proved to be highly effective. When I presented it to my client, they found it engaging and accessible. This approach is superior to using booklets, as the clients could both hear and see the food items discussed by the midwife. I did not need to provide any translation (Midwife 3, personal communication, February 5, 2025).

Another midwife offered a strategic and pragmatic perspective on language choices in educational films. She explained:

This is a Ga community. However, all who come to our facility speak Twi. Not all nurses speak Ga. Thus, Twi, with its English terms, was acceptable. It serves both clients and midwives. I believe that the combination of Twi and English is meant to enhance my understanding. (Midwife 12, personal communication, May 26, 2020).

In addition to the language elements, participants also pointed out the attractive appearance of local food items. For example, one community health nurse said:

The local food items in the video made education easy to use. The participants saw pictures of the various food groups they needed to eat to boost their blood levels to help them have a healthy pregnancy and healthy children. The pictures were attractive and colourful. All were available in the market and familiar to them. Therefore, I did not talk much about it. I gave little explanation because they got most of the words right (Community health nurse 2, personal communication, June 17, 2020).

In addition to language, the midwife character also played a role in shaping the use of the film. As one midwife remarked, "The midwife looked exactly like a professional midwife.

She is very knowledgeable and presents very well” (Midwife 6, personal communication, February 6, 2025). Others likewise highlighted the presence of the pregnant woman and her narrative journey from sadness to happiness as a powerful narrative element that helped pregnant women identify with and understand the film’s message.

The inclusion of persuasive message components, such as threat and efficacy elements, in the narrative structure had an impact on its usage. Health workers believed that the message elements supported them in freely talking to pregnant women on culturally sensitive topics that might otherwise be difficult to discuss openly. This is what one nutrition officer said

The video reveals a challenging reality. You know, because of Ghanaian culture and beliefs, talking about the dangers associated with pregnancy, such as death, complications, or birth abnormalities, can be difficult. Many people believe that mentioning these risks means that they are calling them to themselves. We often approach this topic cautiously because of our superstitious beliefs. But we have to tell them. For me, I really appreciate how the midwife addressed these issues and offered solutions to avoid the complications. When pregnant women are well-informed, they can avoid these dangers. So the video made the work easier because once it was mentioned in the video, when I was talking to them about it, it was easy to start the conversation along that line (Nutrition Officer 3, personal communication, March 26, 2025).

The findings support the construct of perceived ease of use (PEU). This construct holds that, even when a technology is seen as beneficial, its adoption is also influenced by users’ perceptions of how easy it is to use (Lee *et al.*, 2025; Venkatesh *et al.*, 2003). In other words, PEU draws attention to how

a technology’s design features shape an individual’s belief that its use will require minimal effort because it is perceived as “user-friendly” (Purwanto *et al.*, 2024, p. 112).

Rafique *et al.*, 2024 similarly argue that a tool or technology is regarded as useful when its design features enhance user-friendliness. In this study, participants identified the Twi and English voiceovers, the engaging visuals of local food items, the midwife’s performance, and the relatable design of the pregnant woman character as key filmic elements shaping their perception of the film’s ease of use for educational purposes.

With regard to narrative content, participants also highlighted the inclusion of threat and efficacy elements as features that made the films easy to engage pregnant women on sensitive maternal health topics. These findings echo existing literature on the role of culturally appropriate communication elements in the production of educational films. Several studies have supported that the use of culturally appropriate communication elements in the production of health educational media facilitates audience engagement by enhancing understanding of health messages and extending the reach of such media to wider populations, including audiences with low literacy levels (Boateng *et al.*, 2020; Glover-Meni *et al.*, 2024; Hurtado de-Mendoza *et al.*, 2020; Mashaba *et al.*, 2024; Mutanda *et al.*, 2017).

Furthermore, the finding that relatable characters, together with threat and efficacy message elements, make it easier to engage pregnant women is consistent with scholarship in health education and persuasive communication. A growing body of studies indicates that relatable characters can strengthen identification and engagement among audiences, while threat and efficacy elements in educational media narratives are crucial for enhancing persuasive impact and encouraging behavioural motivation (Bilali,

2024; Moussaoui *et al.*, 2021; Shin *et al.*, 2018).

Adoption and Impact on Professional Practice

The study discovered that the film served more than just as a tool for supporting education. The film eliminated or reduced the many hours health workers spent on the internet and searching for materials from other sources to prepare educational content, thereby streamlining the working process and giving them more time to attend to other antenatal duties during the same period. For other participants, the film served as a “self-confidence booster” because the health workers related to the status and knowledge level of the midwife in the film. One community health nurse expressed that:

The video helped me to use my time effectively. I can show the video to the client while they wait for the clinic to begin. At the same time, I also started registering the newcomers [new client] and assigning them to rooms for review by their doctor. Later, I will come back to those watching the video, engage them with questions and explanations to ensure that they understood (Community Health Nurse 2, March 12, 2025).

Observational data also showed many instances in which health workers referred to the midwife in the film as if she were a real person, making her look like a co-educator for antenatal education sessions.

This arrangement allowed them to offload some routine educational work onto the midwife featured in the video, while still drawing on the content afterwards to reinforce and, at times, validate their professional expertise. For example, health workers played the videos for pregnant women to watch while they waited to see their midwives, as the health workers attended to other clinical

tasks such as consulting with pregnant women and registering new clients. Afterwards, they invited clients to recount what “Auntie Nurse,” or the midwife in the video, had said, using this recall to re-enter the discussion and reassert their role in interpreting the guidance. In other facilities, health workers similarly referred back to specific video segments to reinforce their positions as educators and professional authorities. For example, at one pregnancy school, a midwife engaged the pregnant women after the screening, saying

You have heard what Auntie Midwife said. That is exactly what we have been telling you. These are real. This should not occur in any case. We want everyone to have a safe and healthy delivery. You have seen a premature baby. Some conditions are even worse. So please let us all listen to her, not the house doctors. (Midwife 9, February 12, 2025).

Here, it can be seen that health workers adapted the film to serve their needs by repurposing the midwife in the film as a co-worker during educational sessions. The impact of this can be seen in three main ways: effective time management, reduced repetitive and routine tasks of giving the same message over and over again, and finally, health workers' credibility and confidence were boosted. From the perspective of the TAM, this means that the form and narrative style made the film easy to use. However, what is noteworthy here is the way health workers used the midwife in the film as a co-worker, assigning her the repetitive task of providing health education. This goes beyond the dynamics of the TAM and reflects more on technology appropriation, which explains that when users find a technology useful and easy to use, they discover new ways of using the technology in ways that fit their everyday practices and situational demands (Bar *et al.*, 2016; Likavčan & Scholz-Wäckerle, 2018; Retore & Almeida, 2019). In

the context of this post-production research of the film *Pregnancy Tips* as an educational media technology, users not only adopted the educational film but also repurposed it as clinical workflow support for maternal health education. The point here is that participants in this study did not just accept using the film but also repurposed it as “supporting staff” for maternal health education.

Utilisation Challenges and Suggestions for Improvement

One of the main interests of this study is to understand the challenges that were encountered with film’s content and aesthetic choices when health workers used the film for health education. In the context of this study, this feedback will help improve the design features of the film or inform similar production in the future (Akikol et al., 2024; Alves & Pereira, 2020; Sylvain & Chaniaud, 2023). Although health workers valued the use of Twi, one of Ghana’s widely spoken languages, alongside limited English in the narrative, they said they needed to broaden the linguistic range to ensure inclusivity, given the strategic location and catchment areas of their facilities, which the current film could not address. They noted that translating the film into languages such as Ga, Ewe, Hausa, and producing a full English version and including other maternal health topics will make the film more useful to their work. When asked to recommend which topics they would include, health workers made mention of danger signs in pregnancy, signs of true labour, hypertension and pre-eclampsia, sexual health during pregnancy, and the importance of seeking skilled care rather than relying on traditional birth attendants.

In light of these views, it can be said that these concerns do not necessarily point to shortcomings in the film itself. Instead, its use by health workers exposes broader contextual challenges, especially the need to produce

such multimedia content and ensure language inclusivity when films can be integrated into health education in Ghana. These findings also revealed that the acceptance of film as an educational media tool is more than just a positive perception of its usefulness or how easy it is to use, as in the case of traditional technologies (Lee et al., 2025; Salloum et al., 2019; Tang et al., 2023). When it comes to film, as demonstrated in this study, external factors, such as linguistic inclusivity and the specific needs and expectations of users, can shape how it is used. As indicated by the participants, they wished the film was available in other languages and covered other topics, since their health facility received multilingual clients, even from West African countries.

CONCLUSION

This study aimed to examine how the formal features and narrative style of “*Pregnancy Tips*” shape user’ perceptions of the film’s usefulness and how its aesthetic elements influenced its ease of use. The study found that the film was generally perceived as useful. The reason was that the film reduced participants’ workload, helped them manage their time well, and served as a co-worker because the delegated aspects of their educational work to the film while they engaged in other duties and also allowed them to engage their clients more easily in discussions about culturally sensitive health issues, such as the taboo of talking about death and fetal birth outcomes with pregnant women. Design features that made this possible were the Twi and English voiceovers, visuals of local food items, the midwife’s performance, a relatable pregnant woman character, and the use of threat and efficacy appeals in the narrative. However, participants also mentioned some limitations, particularly the lack of language inclusivity and the focus on nutritional messages alone. They therefore requested translation of the film into other languages and the inclusion of

more topics such as danger signs in pregnancy, signs of true labour, hypertension and pre-eclampsia, sexual health during pregnancy, and the importance of seeking skilled care rather than relying on traditional birth attendants.

Based on these findings, this study concludes that the film's direct educational narrative, relatable midwife, and use of the Twi language made it useful for health education, even though the use of Twi language also limited its usefulness among pregnant women who spoke other languages. Another valuable insight from this study is that when film is considered as an educational media technology, its adoption is shaped strongly by the needs of the users and the situation in which it is used, not necessarily by the film's usefulness or how easy it is to use for education.

As demonstrated in this study with health workers in the Ga South Municipal Assembly in Accra, Ghana, the film was found to be useful as it optimized their workflow and delivery of health education. However, because they care for many clients who speak various languages, including some from nearby West African countries, the current film could not fully help them in these areas. This presents two opportunities for future research projects. A longitudinal quantitative study could be used to examine the film as an educational tool to obtain numerical evidence of the film's impact. To understand how film media can support the division of labour within clinical health education workflow, a qualitative study would provide deeper insights and help policymakers make informed decisions about how films can be integrated into health education in Ghana.

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DECLARATION OF CONFLICTING INTEREST

The researcher declares no known potential conflicts of interest in relation to the publication of this article.

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