Television Viewing Frequency and Mode of Delivery Preferences among Primiparous Women in Nairobi, Kenya

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Abstract

Purpose: This study aims to establish television viewing frequency and mode of delivery preferences among primiparous women in Nairobi Kenya, aiming at developing informed strategies to minimize health risks and costs, promoting safer childbirth choices in a media-driven urban environment.

Methodology: The study utilized a sequential mixed-methods approach, which involved 300 purposefully selected primiparous women from eleven sub-counties in Nairobi during routine child immunization schedules. Among the participants, 150 had vaginal deliveries, while the remaining underwent elective caesarean deliveries. Data collection was carried out through interviewer-administered questionnaires, focus group discussions, and in-depth interviews. Quantitative analysis involved the use of mean-weight scores, Chi-square tests, and Cramer’s V using SPSS version 28.0.1.1(15). Thematic analysis was employed for qualitative data using Nvivo 14 to comprehensively understand the research topic. The findings were presented through both numerical analysis and narrative exploration.

Findings: Respondents who underwent elective caesarean deliveries had higher mean TV viewing frequencies on both weekdays and weekends, compared to those who had vaginal deliveries. Both for weekdays and weekends had significant associations with moderate effect sizes. The null hypothesis was rejected due to the significant correlation and linear regression explaining 81.3% of the variability. Each additional weekday TV watching hour increased the odds in preferring a particular mode of delivery by 40%, and on weekends, by 39%. Qualitative analysis confirmed that viewing frequency is influenced by factors such as flexible schedules, cost-effectiveness, accessibility, and content preferences.

Unique Contribution to Theory, Practice and Policy: The study uses cultivation and medicalization theory to establish that television viewing frequency shapes perceptions and subsequent childbirth preferences among urban women, adding to existing body of knowledge on media effects theories. To promote informed childbirth choices, recommendations include encouraging women to critically evaluate media information and seek reliable sources. Additionally, integrating media literacy into antenatal care, implementing targeted campaigns, and researching other media forms beyond television are essential.

Keywords: Television, Media, Primiparity, Childbirth, Preferences

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INTRODUCTION
Television, as a pervasive and accessible medium, plays a crucial role in shaping individuals' perceptions, attitudes, and choices related to various aspects of life, including health and well-being (Morgan, Shanahan, & Signorielli, 2015). Hospitalization of childbirth limits the chances women have to witness childbirth before experiencing it. Childbirth depictions continue to gain popularity and are occasionally featured on mainstream TV, regular viewers inevitably encounter such content (Leahy, 2023; Roberts & De Benedictis, 2021). TV has the potential to dispel misconceptions but has transformed fear of childbirth from the unknown to the known through its depiction (Arfaie, Nahidi, Simbar, & Bakhtiari, 2017).

Frequently televised childbirth interventions are increasingly being adopted, and requesting them could be a proactive attempt to minimize potential risks or injuries associated with it and maintain control over the unpredictable nature of the process (Androutsopoulos, 2018; Boerma et al., 2018). However, requesting or demanding an elective cesarean presents an ethical predicament, as medical teaching still asserts that it is unethical to use it without an indication. (Chen et al., 2018; Eide & Bærøe, 2021; Nilstun et al., 2008; Prado et al., 2018; Romanis, 2019; Sung & Mahdy, 2021; Tunc et al., 2015). In 2022, Kenya reported a maternal mortality rate of 355 deaths per 100,000, preventable with timely access to safe cesarean sections (Human Reproductive Health, 2021; KNBS, 2023; Tunc et al., 2015). However, Nairobi County had the highest cesarean section rate of 30.30% in 2023, according to the Kenyan Ministry of Health.

In today's media-driven society, understanding the influence of television viewing frequency on mode of delivery preferences among urban-dwelling primiparous women is paramount. The study aims to provide valuable insights to healthcare professionals, policymakers, and individuals by establishing this relationship. By acknowledging television's influence in shaping healthcare decisions, the study aims to inform strategies promoting informed childbirth choices and improving overall maternal healthcare outcomes.

Statement of the Problem
The increasing portrayal of childbirth on television and the high rates of caesarean deliveries in Nairobi, Kenya, raise critical concerns about whether opting for elective caesarean deliveries is an informed choice. Previous studies have established that a quarter of all maternal deaths in Nairobi result from complications related to caesarean sections, despite medical necessity (Human Reproductive Health, 2021; Sobhy et al., 2019; WHO, 2016). This rate is higher compared to other regions in Kenya with lower caesarean section rates. This study therefore sought to establish the relationship between television viewing frequency and mode of delivery preferences among primiparous women in a media-driven urban environment with the aim of developing strategies that enable informed childbirth choices. Understanding media's influence on mode of delivery preferences can help healthcare providers better educate and support women, reducing unnecessary caesarean sections and associated maternal mortality.

Study Objective
The objective of the study is to examine the relationship between television viewing frequency and mode of delivery preferences among primiparous women in Nairobi, Kenya. The hypothesis
tested, denoted as $H_0$, posited that there was no significant relationship between television viewing frequency and mode of delivery preferences among primiparous women in the specified region.

LITERATURE REVIEW

Theoretical Framework

The study was guided by Cultivation Theory, developed by George Gerbner in 1969, which suggests that long-term exposure to media content, particularly television, shapes viewers’ perceptions, beliefs, attitudes, and values (Gerbner & Gross, 2019). Gerbner’s main proposition was used to explore and explain viewing frequency has an influence on mode of delivery preference. Additionally, Medicalization of Society theory by Zola, 1972; Illich, 1976; and Conrad, 1992 that acknowledges media as an agent in framing non-medical aspects of life, such as childbirth, to be defined and treated as medical issues (Conrad, 1992; Zola, 1972). The theory was used to explore how viewing frequency cultivates perceptions of childbirth as a medical event rather than a natural process. The two ideas complement each other by providing valuable insights into how viewing frequency influences perceptions, views, and choices related to childbirth practices.

Empirical Review

Television, a predominant entertainment source, plays a pivotal role in shaping social norms and influencing diverse health attitudes (Chow, Viehweger, & Kanmodi, 2021). The hospitalization of childbirth reduces the chances of seeing it take place, but television provides an indirect way to observe the process, making it a regular topic despite being previously taboo (Jeffres et al., 2001; Roberts & De Benedictis, 2021). Regular viewers inevitably encounter this content, storing it in memory for future retrieval and use when facing health-related concerns (Shrum, 1995). This could potentially be a contributing factor to the global overuse of caesarean delivery, currently at 21% of all births. The World Health Organization predicts that by 2030, cesarean births will increase to 29% (Chen et al., 2018; Sobhy et al., 2019; Wu et al., 2023)

Nationally, Kenya's caesarean rate is increasing from 7.6% to 9.5%, with variations across all 47 counties. Nairobi, the capital and largest city, has consistently recorded the highest rate, currently one in four births is a cesarean, at 24.9%, surpassing the WHO's 2015 recommendation of 10% (MOH, 2016, 2019). In regions with cesarean rates below 10%, increasing usage significantly lowers mortality, but in areas with rates of 10-30%, overuse doesn't improve outcomes but instead leads to harm (WHO, 2015). Additionally, Mwita (2021) highlights that Nairobi County stands out for its high television viewership rating and coverage compared to other regions in Kenya. This observation aligns with Gerber's thesis, suggesting that frequent viewing can influence individuals' values and attitudes to mirror the content consumed. Additionally, Morgan et al., (2015) argue that the cultivation effect occurs when television information is integrated into beliefs, with heavy viewers relying on heuristic processing for quick decision-making.

The rise of new media technologies has made television more accessible, enabling viewers to watch live, download, and view at their convenience, ensuring TV continues to dominate the contemporary media landscape (Courage, 2017). Lee & Peng, (2023) using meters installed on panelists' television trackers, established that 63% of people use smartphones for 15 minutes and
40% use physical computers for 1 hour and 15 minutes per week. Additionally, 93% of Americans watch traditional television with internet and Web 2.0 features, spending 149 hours per month on live and time-shifted content for entertainment and engagement. Cohen & Lancaster, (2014) using a trend tracker, found 95% of shows have online content with second-screen applications, with over 50% of adults using devices to avoid commercial boredom, fact-check program statements, or interact with others. Liu et al., (2023) notes COVID-19 pandemic and its recommendation to work from home are likely leading to an increase in screen time.

Research Gaps

Previous studies by Roberts & De Benedictis, (2021) and Leahy, (2023) primarily focused on how television depicts childbirth and information-seeking behaviors during pregnancy, leaving gaps in understanding the direct relationship between frequency of viewing on mode of delivery preferences. Additionally, research by Liu, Coulter, Sui, Nuss, and Rhodes (2023) highlighted the limitations of relying on panelists and trend TV trackers to assess viewing frequency and need for more accurate measurement methods. In addition, most studies were conducted in non-African settings, limiting generalizability of their findings to African contexts such as Kenya. Addressing these gaps is critical for informed maternal healthcare decision-making in urban areas. Using a mixed-methods approach, incorporating self-reported data and firsthand insights from diverse experts, offers a comprehensive avenue for advancing research in this field.

METHODOLOGY

The study utilized a sequential explanatory mixed-methods design, integrating both quantitative and qualitative approaches to comprehensively address the study objective (Creswell, 2012; Johnson & Onwuegbuzie, 2007). The study involved 300 purposefully selected primiparous women responding to pre-piloted interviewer-administered questionnaires. The sampling was stratified across eleven sub-counties, with 150 drawn from public and 150 private healthcare facilities. Purposeful sampling was used to identify participants during routine newborn immunization sessions using Maternal and Child Health booklets to ensure a balance. Out of the total sample, half of the participants had vaginal deliveries, while the remaining had undergone elective cesarean deliveries. Subsequently, three focus groups and six in-depth interviews were conducted to gain further insights based on themes from the quantitative analysis. Quantitative data analysis involved mean-weight scores for central tendencies, Chi-square tests to explore categorical associations, and Cramer's V quantified the strength of these associations using SPSS version 28.0.1.1(15). Qualitative data from interviews was translated and transcribed for thematic analysis using Swahili to English Translator APK App Version 2.8.3 and Nvivo 14 automated transcription software, respectively. The ethical guidelines were strictly followed and approval was obtained from the relevant review boards.

RESULTS AND DISCUSSIONS

Response Rate

The initial sample size of 320 was increased by 20% (384) to account for potential dropout and attrition. Out of the 370 individuals approached, 300 successfully completed the questionnaire, resulting in a response rate of 93.75%. This response rate was deemed sufficient for
comprehension and inferences. During the qualitative phase, all participants in the focus group discussions (FGDs) and in-depth interviews provided responses to all questions posed, resulting in a 100% response rate.

**Descriptive and Inferential Findings**

Television viewing frequency was assessed based on viewing duration, rather than how childbirth is depicted or viewing motives. Respondents reported their daily viewing hours on weekdays, weekends, and at different times of the day (morning, daytime, and evening). They were then categorized into heavy viewers (more than four hours per day), moderate viewers (two to four hours per day), and light viewers (less than two hours per day) based on their weekday and weekend viewing averages.

Both groups had a mean-weighted score above 1.5, indicative of a potential influence of TV viewing frequency on mode of delivery preferences. Respondents who had undergone elective caesarean deliveries had higher mean TV viewing frequencies for both weekdays 2.41 and weekends 2.42 compared to those who had vaginal deliveries, which had means of 1.87 on weekdays and 1.81 on weekends Table 1 presents Chi-square and Cramer’s V (φc) results for the association between TV viewing frequency and mode of delivery choice.

**Table 1: Chi-Square Test, Cramer’s V Results for TV Viewing Frequency, and Mode of Delivery Choice**

<table>
<thead>
<tr>
<th>TV Viewing Frequency</th>
<th>χ²</th>
<th>df</th>
<th>p</th>
<th>φc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekdays</td>
<td>37.6865</td>
<td>2</td>
<td>&lt; 0.001***</td>
<td>0.35</td>
</tr>
<tr>
<td>Weekends</td>
<td>42.7387</td>
<td>2</td>
<td>&lt; 0.001***</td>
<td>0.38</td>
</tr>
</tbody>
</table>

***p < 0.001 (α = .05).

Both for weekdays and weekends had a significant association (p < 0.001), with moderate effect sizes of φc 0.35 and 0.38, respectively. This led to the rejection of the null hypothesis (H₀) Table 2 presents the results of the logistic regression analysis.

**Table 2: Logistic Regression Analysis**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coef.</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>Intercept</td>
<td>-1.234</td>
<td>0.290</td>
<td>&lt; 0.001*</td>
</tr>
<tr>
<td>Weekdays</td>
<td>0.337</td>
<td>1.400</td>
<td>[1.254, 1.564]</td>
<td>0.000</td>
</tr>
<tr>
<td>Weekend</td>
<td>0.327</td>
<td>1.386</td>
<td>[1.235, 1.551]</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The regression analysis resulted to a highly significant model (F (2, 298) = 646.361, R² = 0.813, p < 0.001), explaining 81.3% variability in mode of delivery preferences. For each additional hour of TV watching on weekdays, the odds of the outcome increase by approximately 40% (Odds Ratio = 1.400, p < 0.001) while each additional hour of TV watching on the weekend, the odds of the outcome increase by approximately 39% (Odds Ratio = 1.386, p < 0.001).

This was supplemented and expounded upon by the qualitative analysis that revealed TV viewing is the most common leisure activity, serving as a primary means of recreation and distraction. TV viewing frequency varied, some as a daily ritual and others as intermittent sessions. One participant stated
"Watching TV helps me relax every day. Some days, I take short breaks, while other days, I watch for longer periods."

Free time availability significantly determined frequency of TV viewing, with those with more free time and flexible schedules watching more TV. Another FGD participant mentioned

"I have a flexible schedule, so I tend to watch TV whenever I have free time. It's a convenient way to pass time."

TV viewing frequency is influenced by affordability and accessibility, with participants valuing these factors over other leisure options. Furthermore, Streaming platforms have revolutionized television viewing by providing easy access to a diverse range of content at any time. A participant said,

"TV offers affordable entertainment right at my fingertips. Streaming services allow me to watch what I want, when I want, contributing to my regular viewing habits."

The variety of content choices on TV significantly influences viewing habits, viewers tend to be more engaged with specific genres that align with personal preferences, enabling them to revisit their favorite shows or discover new ones. As one participant shared,

"I'm drawn to shows that capture my interest. Whether it's old favorites or new discoveries, TV offers a diverse range of content that keeps me engaged."

The thematic analysis revealed that TV viewing frequency is influenced by various factors, including flexible schedules, cost-effectiveness, accessibility, and content preferences. These, in turn, correlate with the decisions and preferences regarding the chosen mode of delivery.

Discussion

The study utilized self-reporting to establish the relationship between TV Viewing frequency and mode of delivery preferences. Respondents opting for elective caesarean deliveries reported higher TV viewing frequencies. The significant association led to rejection of the null hypothesis. Regression analysis explained 81.3% of preferences, with increased TV watching correlating with higher odds of elective caesarean preference. This was confirmed and elaborated on by the qualitative analysis.

The findings resonate with and affirm Gerbner's cultivation theory, asserting that individuals who spend more time watching TV are influenced in their perceptions and behaviors (Dutta et al., 2017; Morgan et al., 2015; Shanahan & Morgan, 1999), the correlation was observed in respondents who underwent an elective caesarean deliveries. Highlighting the significant role of television viewing frequency in health-related decision-making, particularly regarding mode of delivery preferences. The observed moderate effect size of TV viewing frequency on mode of delivery preferences aligns with Kumar & Sharma, (2023) study on frequent media exposure as a predictor of mode of delivery.

The integration of quantitative and qualitative data establishes how television viewing frequency influences mode of delivery choice among urban-dwelling primiparous women, enhancing our understanding of how television habits in a media-driven society shape individual perceptions and attitudes. The information gathered from frequent viewing is stored in our memory, to be retrieved
and applied when addressing childbirth-related concerns and decisions. Beyond the valuable insight, it also paves way for further research in this area.

CONCLUSION AND RECOMMENDATIONS

Summary
The study establishes that there is a significant association between TV viewing frequency and mode of delivery preferences among primiparous women in Nairobi, Kenya. As childbirth depictions continue to gain popularity, regular viewers inevitably encounter such content and become more susceptible to its influence, shaping their perceptions and subsequent choices regarding the mode of delivery. The regression analysis revealed that increasing viewing frequency significantly influenced individuals' preferred mode of childbirth. Individuals who preferred elective caesarean delivery had higher rates of TV viewing frequency. Additionally, viewing habits are influenced by the flexible schedules, cost-effectiveness, accessibility, and content preferences.

Conclusions
The study concludes that TV viewing frequency has a profound influence in shaping regular viewers' perceptions and beliefs, ultimately affecting their decisions regarding the mode of delivery they opt for. Beyond academic curiosity, the increasing portrayal of childbirth on mainstream television and the high cesarean delivery rates observed in Nairobi, Kenya, are somehow linked. The inclusion of women without prior childbirth experience and their self-reported experiences adds valuable insights that enhance the reliability and validity of the study's findings.

Recommendations
Based on the study's findings, recommendations include encouraging women to critically evaluate information presented in the media and seek reliable sources for information. Healthcare providers should integrate media literacy into antenatal care and encourage open discussions to dispel misconceptions. TV producers should collaborate with healthcare experts to ensure responsible messaging. Additionally, policymakers should implement media literacy programs and support research to inform evidence-based policy decisions.

Further Research
Despite the valuable insights, unanswered questions persist, necessitating further research. The study suggests exploring specific factors within TV content that influence viewers' preferences, examining the context of TV viewership in shaping mode of delivery preferences and considering other forms of media to achieve a comprehensive understanding of this dynamic interplay.
REFERENCES


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