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A global review of the impact and uses of art and media in improving parental awareness and attitudes regarding childbearing: A literature review

Zahra Maleki[1], Fatemeh Zare[2], Mohebat Vali[3], Haniyeh Kazemi[4], Zahra Yazdansetad[4*]

[1] Health Sciences Research Center, Torbat Heydariyeh University of Medical Sciences, Torbat Heydariyeh, Iran
[2] Department of Operating Room, Faculty Member of Paramedical School, Jahrom University of Medical Sciences, Jahrom, Iran
[3] Non-communicable Diseases Research Center, Shiraz University of Medical Sciences, Shiraz, Iran
[4] Student Research Committee, Shiraz University of Medical Sciences, Shiraz, Iran

***Corresponding Author Email: yazdansetad.2013@gmail.com**
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Abstract

Declining fertility rates and changing reproductive behaviors have become major demographic challenges worldwide. Attitudes and awareness toward childbearing is critical in shaping fertility intentions. Emerging evidence suggests that art, media, and digital technologies may significantly influence these attitudes. This narrative review aimed to examine the impact of art, mass media, and digital platforms on enhancing parental awareness and attitudes toward childbearing and fertility-related behaviors across diverse global contexts.

A narrative literature review was conducted using international databases, including PubMed and Google Scholar, and Iranian databases, including SID and Magiran. Keywords related to fertility, childbearing, attitudes, media, art, internet, and social media were searched. Peer-reviewed articles published in English or Persian up to January 26, 2024, were included. Relevant findings were synthesized narratively without formal quality appraisal.

The reviewed evidence shows that various forms of media—such as television, mobile applications, social media, and internet-based interventions—are associated with increased awareness and knowledge. In some contexts, attitudes toward childbearing, contraception, and fertility care are more common. Digital platforms, particularly mobile messaging applications and social media, were found to be influential among younger populations. Art-based approaches, although less frequently studied, showed potential for addressing emotional and psychological aspects of reproductive decision-making. However, social media discourse was also shown to amplify perceived risks of childbirth in some settings, potentially discouraging fertility intentions. Art, media, and digital technologies are multifaceted in shaping parental awareness and childbearing. When culturally sensitive and evidence-based, these tools may support informed reproductive decision-making and contribute to strategies addressing declining fertility. Further context-specific study is needed to better understand their long-term effects on fertility behavior.

Keywords: Art, Media, Childbearing, World

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Introduction

In recent decades, the world has experienced significant demographic transitions. These were characterized by a sustained decline in fertility rates in both developed and developing countries. According to the United Nations, between 2015 and 2020, at least 25 countries recorded a total fertility rate below 1.5, a level below the replacement threshold. Also, it is expected to accelerate population aging in the coming decades (1, 2). Such demographic shifts have substantial economic and social consequences, including a decreasing active workforce, increasing dependency ratios, and growing pressure on social security and health systems (3, 4).

Evidence from population-based and epidemiological studies shows that fertility decline is a multifactorial phenomenon influenced by a complex interaction of individual, social, and structural determinants. Higher levels of education, increased income, urbanization, enhanced social mobility, changes in socioeconomic status, and delayed age at marriage have consistently been identified as key contributors to reduced fertility in different settings (5). Among these, individual attitudes toward childbearing and fertility intentions are the central mediating factors between structural conditions and reproductive behavior. Behavioral and sociological theories suggest that changes in attitudes can translate directly into changes in fertility-related decisions. A positive intention toward childbearing is unlikely to emerge in the absence of a favorable attitude (6).

Empirical studies support the importance of attitudinal factors in shaping reproductive intentions. For example, findings from Abbasi et al. showed that household income and spousal age difference were positively associated with attitudes toward childbearing. However, higher education, increasing age, and adverse socioeconomic factors were negatively associated with such attitudes (7–10). These findings highlight the dynamic effect between socioeconomic development and value systems related to reproduction.

A large number of study emphasizes the influential role of media, art, and technology in shaping reproductive knowledge, attitudes, and behaviors. Studies conducted in several African countries showed that adolescent pregnancy remains a major public health challenge. It is significantly associated with factors such as media exposure, contraceptive use, marital and employment status, household wealth, education level, and community-level norms (11). Similarly, a large cross-sectional study based on the Indian National Family Health Survey (2015–2016) found that exposure to multiple forms of mass media, including television, radio, newspapers, and films, was positively associated with adequate antenatal care visits, defined as at least eight visits during pregnancy. Among these media, television showed the broadest reach across both urban and rural populations, underscoring its potential as an effective channel for public health messaging (12).

The expansion of digital technologies has further transformed access to reproductive and maternity-related information. An internet-based cross-sectional survey examining the use of social media for evidence-based maternity care information revealed that women were highly engaged in seeking, sharing, and applying pregnancy-related knowledge through online platforms. Most participants expressed interest in reading evidence-based content and reported intentions to incorporate the information into their health-related decisions (13). These findings suggest that digital media may be critical in shaping parental awareness and informed decision-making.

Beyond informational media, art-based interventions have also been explored as complementary approaches in reproductive and maternal health. A randomized controlled trial (RCT) assessing the effectiveness of art therapy combined with midwife-led counseling for reducing parturition fear found that both the intervention and control groups experienced significant reductions in fear levels, although no statistically significant difference was observed between groups. However, the study suggested that art therapy may serve as a valuable alternative for women who are

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receptive to this modality, while emphasizing the need for further rigorous study (14).

Existing evidence shows that media, art, and technology can substantially influence parental awareness, attitudes, and behaviors related to fertility, childbearing, and maternal health. However, the effects of these exposures are context-dependent and remain insufficiently synthesized across diverse cultural and geographical settings. Therefore, the present review was conducted to systematically examine the impact of art and media on enhancing parental awareness and attitudes toward childbearing worldwide.

Methods

This study was conducted as a narrative review to explore the role of art, media, and digital technologies in shaping parental awareness, attitudes, and intentions toward childbearing and fertility-related behaviors worldwide.

A literature search was performed in major international databases, including PubMed and Google Scholar, as well as Iranian scientific databases, including the Scientific Information Database (SID) and Magiran. The search strategy combined keywords related to reproductive attitudes and media exposure, including attitude, intention, motivation, fertility, childbearing, reproduction, childbirth, art, media, internet, and social media. Boolean operators (AND/OR) were used to broaden and refine the search.

Peer-reviewed articles published in English or Persian, with no geographical restrictions, were considered. Studies published up to January 26, 2024, were eligible for inclusion. Original research articles, review papers, and interventional studies addressing the influence of art, mass media, or digital platforms on fertility-related awareness, attitudes, or behaviors were included. Opinion pieces, editorials, and studies lacking relevance to reproductive or parental outcomes were excluded.

Article selection was based on relevance to the study aim and conceptual contribution rather than formal quality scoring. The selected literature was reviewed descriptively, and findings were synthesized narratively to identify major themes and patterns regarding the influence of art and media on childbearing-related attitudes and awareness.

Results and Discussion

Evidence from diverse geographical and cultural contexts suggests that media-based and art-related interventions can influence attitudes, awareness, and decision-making related to contraception, fertility, and childbearing.

Several RCTs have examined the effectiveness of mobile-based interventions in shaping reproductive attitudes. A study conducted in Bolivia evaluated an intervention delivered using mobile instant messaging alongside a family planning application among women aged 16–24 years. The trial showed that exposure to tailored intervention messages was safe and associated with increased acceptance of effective contraceptive methods. This indicates the potential of digital platforms to influence reproductive attitudes among young women (15). Similarly, an RCT in Tajikistan reported that instant messaging–based interventions delivered through a mobile application over four months could positively affect attitudes toward contraception among youth. This highlights the role of content framing in shaping perceptions (16). These findings suggest that mobile applications and SMS-based messaging may serve as scalable tools for influencing reproductive attitudes and intentions among young generations.

The role of mass media as a primary source of fertility-related information has also been documented. A study conducted among infertile patients in Japan found that participants primarily relied on television, medical institutions, print media, and online forums for information regarding assisted reproductive technology (ART) and fertility care (17). Given Japan's ongoing demographic challenges, these findings underscore the importance of widely accessible media—particularly television—in disseminating fertility-related information and shaping public attitudes toward childbearing.

Qualitative evidence further shows how media and educational resources contribute to

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women's experiences of pregnancy and antenatal care. Among Asian women living in East London, information obtained through antenatal classes, pamphlets, books, films, and television programs is critical in shaping pregnancy-related knowledge and experiences. Women living in nuclear families, in particular, relied heavily on external informational and social resources, emphasizing the importance of accessible educational platforms for parental support (18).

Large-scale population-based studies provide additional support for the influence of mass media on reproductive behaviors. An analysis of data from the Indian National Family Health Survey (2015–2016) showed that exposure to mass media—especially television—was significantly associated with increased use of modern reversible contraceptive methods among married women. Media exposure accounted for approximately a 14% increase in contraceptive use, suggesting that mass media can function as a cost-effective mechanism for disseminating family. It plans information and motivation for continued use (19).

Social media platforms have emerged as influential spaces for shaping perceptions of childbirth, particularly among younger women. A qualitative content and thematic analysis conducted in China examined discussions on the Douban platform regarding the meaning of childbirth. The findings revealed that the majority of posts expressed neutral or negative attitudes toward childbirth, with health risks being the most frequently cited concern. Positive aspects, such as psychological fulfillment, were discussed less frequently, while the traditional benefits of child-rearing were rarely mentioned. The study suggested that social media discourse may increase perceptions of risk and uncertainty, potentially contributing to hesitancy toward childbearing among young women (20).

Media exposure is also significant in shaping awareness and attitudes toward infertility treatments. A study conducted in Nigeria reported high levels of awareness of assisted reproductive technology among clinic attendees, largely attributed to increased access to social media. Despite this awareness, negative attitudes toward ART and gamete donation remained prevalent. It shows a gap between information exposure and attitudinal acceptance (21). Similarly, a cross-sectional study conducted in the United Arab Emirates found that although awareness of planned egg freezing was high among reproductive-aged women, overall knowledge was limited, and attitudes were influenced by cost, cultural considerations, and safety concerns. Social media was identified as the primary source of information, reinforcing its central role in shaping fertility-related knowledge and perceptions (22).

These findings show that media, digital technologies, and artistic content influence fertility-related awareness and attitudes through multiple pathways, including information dissemination, emotional engagement, and social norm formation. However, the impact of these interventions varies by cultural context, content framing, and accessibility. Narrative synthesis of the existing literature suggests that while media and art have substantial potential to promote informed and positive attitudes toward childbearing, their effectiveness depends on alignment with local values. Also, it depends on the credibility of information sources and the broader social and policy environment.

Conclusion

This narrative review highlights the growing influence of art, media, and digital technologies on parental awareness, attitudes, and perceptions related to childbearing and fertility. Evidence from different settings suggests that mass media and digital platforms can serve as powerful tools for disseminating reproductive health information, shaping social norms, and influencing attitudes toward contraception, fertility care, and childbirth. Mobile-based interventions and social media, in particular, appear to be effective in reaching younger populations and facilitating engagement with fertility-related content.

Also, the findings show that media exposure does not uniformly promote positive fertility attitudes. In some contexts, especially on social

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media platforms, discussions emphasizing health risks and personal costs of childbearing may contribute to ambivalence or negative perceptions. These mixed effects underscore the importance of content quality, cultural relevance, and balanced messaging in media-based interventions.

Overall, the reviewed literature suggests that integrating art and media into fertility awareness and family support strategies may complement traditional health and policy approaches. However, such efforts should be carefully designed, culturally tailored, and supported by broader social and policy measures to create an enabling environment for childbearing decisions.

Strengths and Limitations

One of the main strengths of this review is its broad and interdisciplinary scope, encompassing studies from multiple regions and cultural contexts and including a wide range of media formats, from traditional mass media to digital and art-based interventions. By synthesizing evidence from quantitative, qualitative, and interventional studies, this review provides a comprehensive overview of how art and media may influence fertility-related awareness and attitudes. Additionally, the inclusion of both international and Iranian databases enhances the contextual diversity of the reviewed literature.

This study has several limitations inherent to its narrative review design. First, no systematic quality assessment or formal risk-of-bias evaluation was conducted, which may limit the reproducibility of the findings and increase the potential for selection bias. Second, the heterogeneity of study designs, populations, and outcome measures prevented quantitative synthesis or meta-analysis. Third, many of the included studies focused on short-term attitudinal outcomes rather than long-term fertility behaviors, limiting causal inference. Finally, publication bias and language restrictions to English and Persian may have resulted in the omission of relevant studies published in other languages.

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