

SDG and Digital Landscape: A Review on the Role of Social Media to Promote Women's Menopausal Health

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ABSTRACT

This review highlights the important role of social media in supporting women's menopausal health, necessary for achieving Sustainable Development Goals (SDGs) related to gender equality and health. It analyses the impact of social media platforms on awareness, education, and support for women's menopausal health. The qualitative method was used to review the literature. Databases used were PubMed, Web of Science, and Google Scholar and only English-language articles were included. Social media platforms help promote women's menopausal health, share information, give emotional support, and raise awareness to reduce stigma. However, challenges such as misinformation, quality control, and the digital divide affect equal access for all women. Social media raises awareness and support for menopausal health, aligns with the SDGs, addresses gender-specific health needs, and promotes healthcare equity. Nevertheless, barriers like societal taboos, misinformation, and limited access to digital technologies limit the potential of these platforms. Social media can help advance women's menopausal health and support SDG goals for health and gender equality. Future studies must assess the impact of social media-based initiatives and identify solutions to current challenges and limitations. Inclusive digital access and literacy make social media a key part of global progress in women's health and empowerment.

Keywords: Health communication, social media, Women's health, Information dissemination, Sustainable Development Goals (SDGs)

1. INTRODUCTION:

The Sustainable Development Goal (SDG) era requires innovative approaches to healthcare systems, necessitating a paradigm shift in how we design, deliver, and sustain health services to achieve universal health coverage and overall well-being (Kruk et al., 2018).

In 2023, women made up 49.7% of the global population (*World - Female Population as a Share of Total Population*, 2024), and awareness about their health is of utmost importance. Women's health spans a broad spectrum of concerns, including both physical and emotional well-being that are either unique to women, more prevalent in women, or differ in how they manifest, their severity, or their outcomes compared to men. Typically, women's health is associated with reproductive health and safety for younger women, as well as diseases affecting the female reproductive system (Haan, 2001). Within this framework, women's health, particularly during menopause, is a significant yet often overlooked issue. In many contexts, limited awareness and delayed health-seeking behaviour contribute to menopause-related concerns remaining insufficiently addressed, adversely affecting women's health outcomes (*Menopause.*, 2022).

The health and well-being of every citizen determine the growth and development of any country. The Sustainable Development Goals (SDG) encompass a host of worldwide issues, such as health and well-being for all (goal 3); striving for gender equality (goal 5); and others (Magar, 2015). Existing research suggests that social media communication may contribute to increased

awareness and knowledge dissemination, thereby supporting progress toward these goals. Women, being considered the more vulnerable group, take recourse to social media to connect, share and interact for myriad reasons.

A comprehensive analysis of research on social media in healthcare revealed that patients primarily utilize social media to access social support, seeking emotional comfort, validation, information, and connections with others, highlighting the significance of online communities in healthcare experiences (Smailhodzic et al., 2016). Several researchers have defined social media copiously, suggesting the importance of communication and connectivity via social media in the contemporary technology-driven world. As cited by Power (2014) Social media platforms harness mobile and web technologies to provide interactive spaces for users to connect, exchange information, work together, and adapt content to their needs, thus enabling real-time virtual interactions (Kaplan & Haenlein, 2010). Social media platforms provide a robust medium for users to engage in collaborative exchanges and serve as a vital medium for social interaction, fostering connections and community building among diverse individuals (Moorhead et al., 2013).

While prior studies have examined social media in health communication and women's health separately, there is limited synthesis explicitly linking social media-enabled menopause communication with the Sustainable Development Goals. This review addresses this gap by integrating menopausal health discourse within the SDG

framework, highlighting how digital platforms may contribute to gender equity and health promotion. This review examines the effectiveness of social media in promoting women's menopausal health, exploring its impact on awareness, education, and support. The study aims to highlight current trends and provide insights for future research and practice.

2. Methodology

This study adopts a narrative integrative review approach to synthesize existing literature on social media use in promoting women's menopausal health within the SDG framework. The analysis focuses on how social media platforms are used to communicate health information related to menopause, evaluate the impact of these communications, and identify gaps and opportunities for improvement. Literature search was carried out using multiple databases, including PubMed, Web of Science, and Google Scholar. The literature search covered publications from [2000 to 2024]. Titles and abstracts were screened for relevance, followed by full-text review. Studies focusing on menopause-related health communication via social media platforms were retained, while articles unrelated to menopause or digital communication were excluded. The search terms included keywords related to social media, menopausal health, women's health, SDGs, and health communication. Figure 1 below shows the flowchart of the methodology.

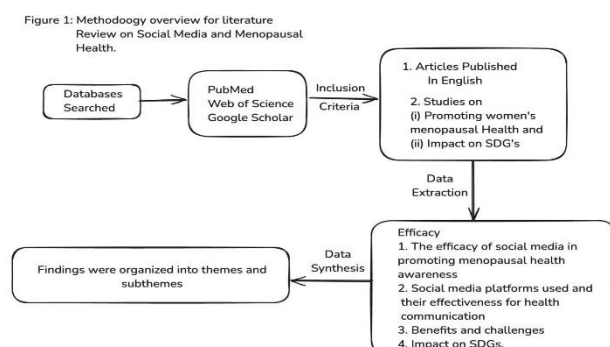


Figure 1. Methodology overview for literature review on social media and menopausal health

Inclusion Criteria

Eligible studies included peer-reviewed journal articles, reports, and reviews that explicitly examined (i) menopause or menopausal health, (ii) social media or digital communication platforms, and (iii) implications for women's health, empowerment, or SDG-related outcomes. Opinion pieces and studies without a substantive discussion of menopause were excluded.

Data Extraction

Pertinent data were extracted from the included literature, focusing on the following aspects

1. The efficacy of social media in promoting menopausal health awareness.
2. Social media platforms used and their effectiveness for health communication.
3. Benefits and challenges of using social media platforms for health promotion, specifically menopausal health.

4. Potential impact on SDGs, particularly SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality).

Data Synthesis

Findings were synthesized thematically to identify recurring patterns related to information dissemination, community support, advocacy, misinformation, and digital inequities, enabling cross-study comparison and identification of research gaps.

3. Results and Discussion

Across the reviewed literature, social media platforms consistently emerge as facilitators of menopause-related awareness, peer support, and stigma reduction. However, the extent and effectiveness of these outcomes vary depending on content quality, platform design, and user literacy. Challenges such as misinformation, quality control, and the digital divide must be addressed to maximize the benefits of social media and ensure equitable access to resources for all women.

3.1 Menopause and Women's Health

Menopause is a natural biological process that women typically experience in their midlife (Hajesmaeel-Gohari et al., 2021). Menopause is marked by a one-year absence of periods (Harper et al., 2023). The onset of menopause signals the end of a woman's reproductive years, ushering in a new life phase. Although it is a normal transition, studies have shown that menopause can have a profound impact on a woman's quality of life and daily experiences (Mohamad Ishak et al., 2021).

Menopause symptoms, experienced by approximately 70% of women during this transitional phase, are linked to decreased oestrogen levels and can be categorized into physical and psychological symptoms. Physical symptoms, affecting around 75% of menopausal women, include hot flashes, night sweats, palpitations, headaches, and musculoskeletal pain, as well as irregular vaginal bleeding and menorrhagia. Psychological symptoms, on the other hand, encompass "depression, memory loss, irritability, poor concentration, fatigue, and loss of confidence" (Bruce & Rymer, 2009) which can significantly impact daily life.

Globally, over 470 million women have reached menopause, and this number is expected to rise to 1.2 billion by 2030 (Harun et al., 2020). Despite these figures, menopause remains under-discussed and poorly managed, primarily due to societal taboos and lack of awareness. Addressing menopausal health is crucial for improving women's quality of life and ensuring their continued contribution to society (Nosek et al., 2010).

Menopause is a pivotal topic in the realm of health communication, uniquely affecting every woman who reaches a certain age, making it a universal and inevitable aspect of women's health. As such, effective communication about menopause is essential to support and empower women throughout this significant life stage (Buchanan et al., 2002).

3.2 Sustainable Development Goals and Women's Health

The United Nations Member States approved the agenda for 2030 for Sustainable Development in 2015. The 17 goals of the Sustainable Development Goals (SDGs), represent an unprecedented worldwide commitment to a universal vision for peace, people, and our planet. To effectively combat poverty and related forms of deprivation, a multifaceted approach is required, encompassing policies that improve access to education and healthcare, reduce economic disparities, and foster sustainable economic development (Lau et al., 2023).

The SDGs aim to promote health and well-being (Goal 3) and achieve gender equality (Goal 5). Ensuring women's health, particularly during menopause, aligns with these goals by addressing gender-specific health needs and promoting equity in healthcare access and quality. Social media can play a crucial role in achieving these goals by facilitating information dissemination, raising awareness, and providing a support network for women undergoing menopause (Magar, 2015). Women's contributions to the realms of society, the economy, and the environment are necessary for sustainable development, and they will grow as a result of increased health, value, ability, and empowerment for women to realize their true potential in all spheres of life, including their jobs as healthcare providers (Langer et al., 2015).

While notable progress has been made in certain areas of girls' and women's health in recent years, substantial gaps in healthcare remain unaddressed. There has been a shift in the focus of the global healthcare sector towards women's health over the past decade. Women's health encompasses a broader range of health concerns that impact women throughout their lives, including issues that affect both men and women, but with unique and often more severe consequences for women due to biological, gender-related, and socio-economic factors that disproportionately impact women (Langer et al., 2015). Empowering women and girls by dismantling gender-based barriers is essential for achieving sustainable progress, realizing their full potential, and fostering a more equitable and prosperous global community (Stenberg et al., 2014).

Despite services being provided, unfavourable social conditions make it difficult for women to independently access healthcare. These conditions particularly affect the marginalized; specifically, women and girls like immigrants, individuals with disabilities, and members of ethnic minorities, who encounter particular difficulties because of, among other things, language issues, cultural attitudes, healthcare professional bias, and discrimination (Adanu & Johnson, 2009). Healthcare professionals' gender prejudices also have an impact on women's accessibility to healthcare for ailments they share with men (Raine, 2000).

There are discrepancies in the way women and girls are able to receive medical care for all of their requirements throughout their lives. These differences have a variety of intricate causes, such as gender discrimination, inadequate health care, disempowerment, and poverty (Barros et al., 2012).

Cultural and religious constraints frequently hinder access to healthcare in a variety of locations. For instance, societal and cultural prejudices make it difficult for women to get medical care from male health experts; this problem further restricts women's access to care in places where there aren't many female health practitioners, particularly in rural areas (Standing, 2000). Despite explicit alignment with SDG 3 and SDG 5, menopausal health remains largely absent from national and global health indicators. Social media-driven menopause communication may therefore function as an informal yet critical mechanism for advancing these goals in the absence of formal policy prioritization.

3.3 The Impact of Social Media in Health Communication

One of the most recent technological advancements that links people together and contributes to development on many different levels is social media. The intrusion of social media's rapidity and connectedness has made an array of things feasible in people's lives (Lalitha V V. et al., 2019). The use of social networking-based interventions in international development efforts has undergone a dramatic transformation (Kaplan & Haenlein, 2010; Lalitha V V. et al., 2019).

Social media platforms such as Twitter, Facebook, Instagram, and YouTube have become vital tools for health communication. These platforms offer unique advantages, including wide reach, real-time interaction, and the ability to share multimedia content. Research indicates that patients use social media to seek emotional support, validate their experiences, and obtain information, which is particularly relevant for stigmatized topics like menopause (Smailhodzic et al., 2016).

3.4 Information Dissemination

Social media spreads health information widely and is easy to access. Healthcare organizations use these platforms to share instructional resources such as webinars, infographics, articles, and videos. For instance, podcasts such as "Menopause: Unmuted" have been shown to change women's views on menopause, increase their knowledge, and challenge stigma (Edwards et al., 2021; Shaw et al., 2022).

Social media uses visuals and speed to share complex health information better. Short videos and visuals explain menopause symptoms and treatment clearly and attract more people (Lau et al., 2023). Health campaigns on social media reach millions, raise awareness, and encourage proactive health actions. Effective social media communication helps achieve public health goals. A study by Kite et al. shows that focusing on engagement, the online ecosystem, and high-quality content increases reach and impact on platforms like Facebook. Social media helps public health organizations reach more people, connect with communities, and improve health results, while their research supports better online strategies (Kite et al., 2016).

3.5 Community Support and Engagement

Online communities allow women to share their experiences, seek advice, and support each other. These communities help women feel less isolated and manage symptoms better. People who are uncomfortable with face-to-face communication can use it, and their concerns about anonymity are also addressed. Social media groups and forums dedicated to menopause offer a space for women to discuss their concerns openly and receive peer support (Gill et al., 2013).

Social media platforms build a sense of community that supports women during menopause. Online peer support groups on Facebook and Reddit connect women to share experiences, exchange tips, and find encouragement from others with similar challenges. These interactions reduce menopause stigma and prompt women to seek medical help (Holbrey & Coulson, 2013).

3.6 Advocacy and Awareness

Awareness campaigns on social media draw attention to menopause and call for changes in health policies and care practices. By addressing cultural taboos and increasing health education, women can feel empowered to seek professional advice. Advocates and influencers use their platforms to share personal experiences, highlight the importance of menopausal health, and give reliable information to their audiences (Mahadevan, 2005).

Global health initiatives use public health campaigns to build healthy habits and prevent illness; these actions shape health outcomes and protect populations from disease (Ike, 2024). Menopause activists use social media to spread information and amplify their message. For example, the "#Make Menopause Matter" movement uses social media to raise awareness about this important issue (Weiss, 2023).

3.7 Challenges and Limitations

3.7.1 Misinformation and Quality Control

Logothetis' 1991 study analyzed medical literature from the past three decades, uncovering three dominant stereotypes of menopausal women: "physical deterioration, psychological disability, and social worthlessness". This research highlighted how inadequate communication about menopause perpetuates its portrayal as a disease. Furthermore, focus group findings revealed that misinformation and uncertainty about menopause are perpetuated throughout a woman's life by various sources, including friends, family, healthcare providers, and the media, contributing to a lasting lack of understanding (Buchanan et al., 2002). Menopausal women face significant barriers in accessing quality healthcare services and supportive social networks, which are exacerbated by a pervasive lack of awareness and understanding of menopause-related issues. Menopause is often stigmatized and neglected, with conversations about it frequently avoided in families, communities, workplaces, and even healthcare settings, leading to a lack of understanding and support (*Menopause.*, 2022).

Ensuring user privacy and creating safe online spaces is essential for encouraging open discussions about menopause. Social media platforms must implement robust privacy policies and moderation practices to protect users from harassment. Support groups and forums should establish guidelines to create a respectful and supportive environment (Radovic et al., 2017).

3.7.2 Digital Divide

A study by Lopez et al. (Lopez Burst et al., 2024) employing interviews and questionnaires explored how individuals utilize technology to cope with menopause, revealing four primary purposes: 1) social support networks, 2) health information seeking, 3) symptom tracking and introspection, and 4) digital self-care tools.

The internet has the potential to provide valuable health information; however, limited digital and health literacy can restrict individuals' ability to access and interpret online resources effectively. These challenges disproportionately affect women from low-income, rural, or marginalized communities, thereby reinforcing existing health disparities and limiting equitable access to menopause-related support (Bandyopadhyay et al., 2022).

The unequal distribution of digital technologies and internet access perpetuates a digital divide, which can worsen existing health disparities. Women from low-income or rural communities often face barriers in accessing social media, limiting their ability to tap into online resources and support for their health. Bridging this digital gap is essential to ensure that all women have equal opportunities to access vital health information and services, promoting health equity and addressing the needs of marginalized communities (Gurstein, 2003). These challenges suggest that without deliberate governance, social media may inadvertently reinforce health inequities, highlighting the need for policy-level integration of digital health literacy into SDG implementation strategies.

To effectively address the digital divide, efforts should concentrate on providing women with greater access to digital technologies and empowering them with the skills to utilize these tools effectively. Community-based programs can provide training and resources to help women navigate social media and access reliable health information. Mobile health initiatives can extend the reach of menopausal health resources to underserved populations (Källander et al., 2013).

Public-private partnerships can be instrumental in addressing the digital divide, leveraging collaborative efforts between tech companies, healthcare providers, and governments to fund infrastructure development and digital literacy initiatives. By providing affordable internet access and low-cost or free digital devices, these partnerships can empower more women to access online health resources, bridging the gap in healthcare access and promoting digital equity (Gurstein, 2003).

Table 1 presents a summary of the themes identified in the review study.

Table 1. Summary of Themes

S. No.	Theme	Work	Author	Outcome
1.	Menopause and Women's Health	“Women, Menopause, and (Ms.) Information: Communication About the Climacteric”	Buchanan MC, Morris Villagran M, Ragan SL.(Buchanan et al., 2002)	Effective communication about menopause is essential to support and empower women throughout this significant life stage
2.	Sustainable Development Goals and Women's Health	“Gender, health and the sustainable development goals”	Magar, Veronica(Magar, 2015)	Ensuring women's health, particularly during menopause, aligns with these goals by addressing gender-specific health needs and promoting equity in healthcare access and quality. Social media can play a crucial role in achieving these goals by facilitating information dissemination, raising
3.	The Impact of Social Media in Health Communication	“Social media use in healthcare : A systematic review of effects on patients and on their relationship with healthcare professionals”	Smailhodzic E, Hooijsma W, Boonstra A, Langley DJ.(Smailhodzic et al., 2016)	Patients use social media to seek emotional support, validate their experiences, and obtain information, which is particularly relevant for stigmatized topics like menopause
4.	Information Dissemination	“Accelerating UN Sustainable Development Goals with AI-Driven Technologies: A Systematic Literature Review of Women's Healthcare”	Lau PL, Nandy M, Chakraborty S.(Lau et al., 2023)	The immediacy and visual appeal of social media can enhance the dissemination of complex health information. Infographics and short videos can simplify and clarify the symptom

				s and manage ment of menopau se, making the informati on more accessibl e and engaging for a broader audience					practices . Influence rs and advocate s use their platform s to highlight the importan ce of menopau sal health, share personal stories, and provide reliable informati on
5.	Commun ity Support and Engagem ent	“A qualitativ e investigat ion of the impact of peer to peer online support for women living with Polycysti c Ovary Syndrome ”	Holbrey S, Coulson NS.(Holbre y & Coulson, 2013)	The sense of communi ty fostered by social media can significa ntly impact women's experien ces of menopau se. These interactio ns can reduce the stigma associate d with menopau se and encourag e women to seek medical help when needed					
6.	Advocac y and Awarene ss	“Communi cation and Education for Health Promotio n and Populatio n Regulatio n: A Global Perspecti ve”	Mahadevan Kuttan(Ma hadevan, 2005)	Social media campaig ns can raise awarenes s about menopau se and advocate for better health policies and					
					7.	Challeng es and Limitatio ns: 3.7.1 Misinform ation and Quality Control	“Women, Menopau se, and (Ms.) Informati on: Communi cation About the Climacter ic”	Buchanan MC, Morris Villagran M, Ragan SL.(Buchan an et al., 2002)	Misinform ation and uncertain ty about menopau se are perpetuat ed througho ut a woman's life by various sources, including friends, family, healthcar e providers , and the media, contribut ing to a lasting lack of understa nding
					7.	Challeng es and Limitatio ns: 3.7.2 Digital Divide	“Effective use: A communit y informati cs strategy beyond	Gurstein, Michael.(G urstein, 2003)	The unequal distributi on of digital technolo gies and internet

		the Digital Divide”		access perpetuates a digital divide, which can worsen existing health disparities
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4. Limitations of the Study and Future Directions

This review is limited to studies published in the English language and to the databases searched, which may have resulted in the exclusion of relevant research published in other languages or indexed elsewhere, thereby potentially limiting the comprehensiveness of the findings. Additionally, the study adopts a qualitative review approach, which, while enabling an in-depth understanding of existing literature, does not provide quantitative evidence to measure the precise impact of social media on menopausal health outcomes. Furthermore, the review did not include a formal appraisal of the methodological quality of the included studies, which may influence the robustness and strength of the synthesized conclusions.

Future studies should prioritize assessing the impact of social media interventions targeting menopausal health outcomes, with an emphasis on identifying effective strategies for content design, delivery mechanisms, and user engagement. Moreover, researchers and healthcare providers must work to bridge the digital divide, ensuring that all women, regardless of socioeconomic status, have equal access to trustworthy online health resources and support, thereby promoting health equity in the digital age.

To fully understand the effects of social media on menopausal health, robust and thorough research is essential. Long-term studies can monitor the progress of women participating in social media-based initiatives,

examining how their health behaviors and outcomes evolve over time, providing valuable insights into the efficacy of these interventions. Future research should also examine platform-specific dynamics (e.g., Facebook groups versus short-form video platforms) and evaluate how algorithmic visibility shapes menopause discourse.

5. Conclusion

From the study, it can be deduced that social media can serve as a valuable tool in promoting women's menopausal health, providing a platform for education, support, and community-building. Through its capacity to disseminate information, facilitate support networks, and mobilize advocacy efforts, social media can play a pivotal role in shattering stigmas and empowering women to prioritize their health and well-being. Addressing challenges related to social media use and equitable access is likely to be important for maximizing its potential benefits. Strategic use of social media has the potential to support SDG-related objectives by enhancing access to information, social support, and health awareness among women.

Social media has significant potential to promote women's menopausal health, supporting SDG goals related to health and gender equality. Further research is needed to examine the effectiveness of social media initiatives and to explore practical ways to overcome existing barriers. Strengthening digital access and literacy among diverse populations can help maximize the benefits of these platforms, positioning social media as a powerful tool for advancing women's health and empowerment globally.

Ethical considerations

Not applicable

Conflict of Interest

The authors declare no conflicts of interest

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