

Exploring the Impact of Social Media on Health Awareness: A Comprehensive Survey Analysis in the Middle East

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Abstract

Background: The rapid expansion of social media over the past two decades has transformed global communication and information sharing. Healthcare professionals are leveraging platforms like Facebook, Instagram, and Twitter to market products, network professionally, and disseminate medical information. In the United States, approximately 72% of adults seek health information online, including via social media. Recognizing its growing influence, healthcare organizations are integrating social media into their services to enhance public health efforts.

Objective: This study aims to investigate the impact of social media on health awareness in the Middle East, exploring individuals' perceptions, behaviors, and trust in health information disseminated through platforms such as Instagram, Twitter, and Facebook.

Methods: A comprehensive survey was conducted, utilizing a thirteen-item closed-ended questionnaire administered through the SurveyMonkey website. The study targeted active individuals on social media in the Middle East, specifically those following at least one healthcare provider. The questionnaire covered diverse aspects, including respondents' demographics, opinions on social media's role in health awareness, effects on health, reactions to healthcare providers' advice, and trust factors.

Results: The survey garnered responses from 11,010 individuals, predominantly female (81.2%). The majority, 88.1%, expressed trust in and adherence to health advice from social media. Gender and age variations were observed, emphasizing the need for tailored communication strategies. While the majority acknowledged the role of social media in health awareness, the youngest and oldest age groups exhibited different inclinations. Notably, 4.3% perceived a negative impact, highlighting potential challenges.

Conclusions: This research provides valuable insights into the dynamic relationship between social media and health awareness. The overwhelmingly positive response suggests social media's potential as a powerful tool for health promotion. Tailored strategies, informed by demographic nuances, are essential for maximizing the positive impact and addressing potential challenges.

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Introduction:

Over the last two decades, the global prevalence of social media has skyrocketed, transforming communication, information sharing, and collaboration. Platforms such as Facebook, Instagram, and Twitter, with their billions of active users worldwide, have become integral to our daily lives. This surge is paralleled by a shift in media consumption patterns, favoring social media. Consequently, the healthcare sector has embraced social media as a marketing tool, fostering professional networks, promoting health products, and disseminating medical information.

In the United States alone, approximately 72% of adults seek health information online, including through social media. Healthcare professionals, recognizing this trend, have increasingly utilized the internet, including social media, for professional interactions and medical discourse. Recognizing its growing influence, healthcare organizations are integrating social media into their services, realizing its potential impact on public health.

Methods:

Study Design: This research employed a survey design to explore the impact of social media on health awareness. Data collection was conducted through a specifically designed thirteen-item closed-ended questionnaire, administered via the SurveyMonkey website.

Participants' Population: The study targeted active individuals on social media platforms, including Instagram, Twitter, and Facebook, within the Middle East region during the year 2022. Participants were required to follow at least one healthcare provider on these applications.

Survey Questionnaire: The survey questionnaire was meticulously crafted to gauge the influence of social media on individuals' health perceptions. Given the observed prominence of healthcare providers on social media in the Middle East, the questionnaire delved into various aspects, including medical advice dissemination, general health awareness promotion, and occasional consultations. Recognizing the potential consequences of the absence of rules and restrictions for healthcare providers in the Middle East using these platforms, the survey aimed to capture both positive and negative impacts on health awareness. The ease of accessibility and increased usage of social media were considered factors that could contribute to enhancing health awareness.

The questionnaire comprised thirteen multiple-choice questions, presented in the following order:

- 1. Respondents' gender
- 2. Respondents' age
- 3. Respondents' nationality
- 4. Number of healthcare providers followed by each respondent
- 5. Respondents' opinion on whether social media plays a role in health awareness
- 6. Effect of social media on respondents' health in a positive or negative way
- 7. Respondents' reaction toward social media healthcare providers' advice
- 8. Trust in social media healthcare providers' advice and reasons for this trust (1) reputation, (2) experience, (3) qualifications, (4) number of followers on social media
- 9. Awareness of social media healthcare providers' field of specialty by respondents prior to following the advice
- 10. Whether respondents asked any medical-related questions to any social media healthcare provider, and if yes, whether the same question has been asked to other social media healthcare providers, specifying the type of question (1) medical consult, (2) general medical query, (3) request advice

These carefully constructed questions aimed to capture a comprehensive understanding of participants' perceptions and behaviors concerning health information on social media.

Results:

The survey enlisted participation from 11,010 individuals, predominantly comprising females (81.2%). Of these, 8,947 respondents identified as female, while 4,124 (37.5%) and 3,781 (34.3%) hailed from Saudi Arabia and Kuwait, respectively. The age distribution demonstrated that 49.3% (5,429) were between 31-40 years, 22.9% (2,526) fell into the 41-50 age group, and 17.6% (1,937) were aged 21-30.

Regarding the number of healthcare providers followed on social media, a substantial proportion of participants (44.1%, n=4,859) followed an average of 3 to 5 doctors. Additionally, 23% (n=2,537) followed 1 to 2 doctors, while a minority (12.7%, n=1,395) extended their following to more than 10 doctors.

In terms of respondents' perception of social media's role in health awareness, a mere 1.3% (n=142) felt that social media played no role, while 4.3% (n=469) believed it negatively affected their health. Conversely, 18.5% (n=2,039) perceived social media as having no effect on their health. Intriguingly, the overwhelming majority, 88.1% (n=9,695), declared that they followed the advice given by

doctors on social media platforms.

Analyzing gender-based differences, both men (41.6%) and women (44.7%) predominantly followed 3-5 doctors on social media. However, a higher percentage of females (34.2% vs. 26.9%) followed more than 5 doctors, with a statistically significant p-value. Age group analysis revealed that, across all age groups except the very youngest and oldest, the common trend was to follow 3 to 5 doctors. Individuals under 16 and over 50 tended to follow fewer doctors (1 to 2), with a statistically significant p-value. Notably, those aged 21-30 and 31-40 were more likely to follow a larger number of doctors, with 13.1% and 13.9% having more than 10 doctors, respectively (p-value).

Examining the belief in social media's role in health awareness, 2.7% of males and 1.0% of females did not perceive a major role, with a calculated p-value. Notably, 4.1% of those below the age of 16, and 2.4% of those above the age of 50 shared the same viewpoint, each with a corresponding p-value.

Regarding the perceived impact on health, almost a quarter of male participants (22.7%, n=468) compared to 17.6% of females (n=1,571) believed that social media didn't affect their health, with a p-value as per chi-square. However, similar proportions of males (5.0%, n=104) and females (4.1%, n=365) considered social media to negatively impact their health, with a corresponding p-value.

Across age groups, the majority in each group felt that social media had a positive effect on their health. However, a notable proportion of those aged 10-15 and above 50 reported feeling no effect. Particularly, 13.1% of individuals in the 10-15 age group viewed social media as a bad influence on their health, with a significant p-value. This perception gradually decreased as the age group advanced.

Notably, 84% of males and 89.0% of females declared following the advice given by social media doctors, with a p-value accounting for the gender proportion difference. While the majority of people in different age groups followed doctors' advice, those above the age of 50 had the highest proportion (16.1%, n=33) who did not follow the advice given.

These results collectively highlight intricate patterns of engagement with health information on social media, influenced by gender, age, and perception variations among participants.

Discussion:

The far-reaching impact of social media on individuals extends beyond interpersonal connections, profoundly influencing how people perceive, interact, and consume information. This digital era has witnessed a transformation in advertising dynamics, with social media now standing as the primary arena for brands and services to engage with their audience. The precision of targeted social media advertising allows for tailored approaches, resonating with individual preferences and demographic nuances [1].

In this digital landscape, the healthcare sector has not been left untouched. Hospitals and clinics have recognized the potential of social media platforms, including Instagram, Twitter, and Facebook, as powerful tools for patient engagement, information dissemination, and bolstering their digital presence [2]. Our study echoes this trend, revealing a significant number of individuals actively following healthcare providers on these platforms.

Social media has become an indispensable conduit for healthcare communication, with providers utilizing these platforms to share health-related content and updates, and to engage with their communities. The increasing number of individuals following healthcare providers on social media platforms, as evidenced in our study, underlines the growing importance of these platforms in the healthcare landscape [3].

Moreover, the positive perception of social media's role in health awareness, as indicated by our participants, aligns with the broader trend of individuals seeking health information online. This reinforces the notion that a robust online presence is not merely an option for healthcare professionals and organizations but a strategic imperative to effectively communicate with an audience that increasingly relies on digital channels for health-related information [4].

However, our study reveals nuanced variations based on demographics, emphasizing the importance of targeted communication strategies. This aligns with previous research highlighting how age and gender influence individuals' engagement with social media content [5]. Understanding these nuances becomes crucial for healthcare providers and institutions seeking to optimize their social media presence and tailor their communication strategies effectively.

Our study's findings align with a previous study done in 2019 with a sample size of 1132, which showed that many people used the internet to seek health information. The study also showed that the prevelance of students seeking web-based health information was 92.66% and female students showed a higher prevalence of web-based health information seeking than male students (210/270, 77.8%) [7]. Another study done in 2020 about using social media for mental health promotion, found that there is an increasing trend in mental health awareness by effectively using digital media as an information dissemination platform [8]. Moreover, a study done in 2020, suggests that social media platforms can have a positive influence on awareness of public health, behavioral changes, and public health protection [9]. These findings contribute to a comprehensive understanding of the impact of social media on health awareness and emphasize the need for further exploration in future studies.

Strengths

This study presents several strengths. Firstly, the inclusion of a large sample size of 11,010 individuals enhances the statistical power and reliability of the findings towards making the results highly generalizable. Additionally, the study benefits from diverse geographical representation groups, capturing responses from various locations within the Middle East. Another strength is the wide age groups of the respondents, including participants at the age of 10-15 years and other participants above the age of fifty years old. These strengths collectively contribute to a more comprehensive understanding of the impact of social media on health awareness in the Middle East, offering valuable insights for both researchers and public health practitioners. However, some limitations were identified.

limitations

One of the limitations of this particular study is that the data were self-reported through an online survey. This may open the study to potential social desirability bias. Another limitation is that most of the study population consisted of females, which may affect the results with regard to gender. While the study contributes significantly to the existing literature on the impact of social media on health awareness in the Middle East, these limitations underscore the necessity for careful consideration when extraplolating the findings to the wider population.

Recommendations:

the impact of social media on individuals extends far beyond health awareness, permeating various aspects of modern everyday life. Our findings serve as a snapshot of this intricate relationship, underscoring the necessity for healthcare stakeholders to be aware of their responsibilities and to navigate the digital landscape adeptly. As social media continues to evolve, its role in shaping health perceptions and behaviors is destined to become even more pronounced, demanding a proactive and nuanced approach from healthcare professionals and institutions alike [6].

Conclusion:

In conclusion, this research illuminates the significant impact of social media on health awareness in the Middle East. The overwhelmingly positive response, with 88.1% of participants expressing trust in and adherence to health advice from social media, underscores the potential of these platforms for health promotion. The study reveals demographic nuances, emphasizing the need for tailored communication strategies to effectively engage diverse populations.

The observed variations across age groups and genders highlight the importance of understanding the

distinct preferences and concerns of different segments of the population. While the majority, especially those aged 16-50, recognizes the role of social media in health awareness, addressing the concerns of the youngest and oldest segments is crucial for comprehensive health communication strategies.

Despite the positive perceptions, it is vital to address the 4.3% who perceive a negative influence. Identifying the reasons behind this perception and implementing strategies to mitigate potential drawbacks will contribute to optimizing the positive impact of social media on public health.

This study's robust findings, derived from a diverse sample of over 11,000 participants, serve as a valuable resource for healthcare organizations. Leveraging social media as a powerful tool for health promotion requires ongoing research and adaptive strategies to navigate the evolving landscape of these platforms.

References:

- 1. Smith, A. N., Fischer, E., & Yongjian, C. (2012). How does brand-related user-generated content differ across YouTube, Facebook, and Twitter? Journal of Interactive Marketing, 26(2), 102–113.
- 2. Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A new dimension of health care: Systematic review of the uses, benefits, and limitations of social media for health communication. Journal of Medical Internet Research, 15(4), e85.
- 3. Ventola, C. L. (2014). Social media and health care professionals: Benefits, risks, and best practices. Pharmacy and Therapeutics, 39(7), 491–520.
- 4. Lee, S. Y., Hawkins, R., & West, K. M. (2013). Examining the interactivity of health-related portals in fostering health information seeking and application. Journal of Health Communication, 18(3), 335–353.
- 5. Perrin, A., & Anderson, M. (2019). Share of U.S. adults using social media, including Facebook, is mostly unchanged since 2018. Pew Research Center. https://www.pewresearch.org/fact-tank/2019/04/10/share-of-u-s-adults-using-social-media-including-facebook-is-mostly-unchanged-since-2018/
- 6. Laranjo, L., Arguel, A., Neves, A. L., Gallagher, A. M., Kaplan, R., Mortimer, N., & Lau, A. Y. (2018). The influence of social networking sites on health behavior change: a systematic review and meta-analysis. Journal of the American Medical Informatics Association, 25(9), 1159–1172. https://doi.org/10.1093/jamia/ocy078
- 7. Ashkanani, H., Asery, R., Bokubar, F., AlAli, N., Mubarak, S., Buabbas, A., & Almajran, A. (2019, October 1). Web-Based Health Information Seeking among Students at Kuwait University: Cross-Sectional Survey Study. *JMIR Formative Research*. JMIR Publications Inc. https://doi.org/10.2196/14327
- 8. Latha, K., Meena, K. S., Pravitha, M. R., Dasgupta, M., & Chaturvedi, S. K. (2020). Effective use of social media platforms for promotion of mental health awareness. *Journal of Education and Health Promotion*, 9(1). https://doi.org/10.4103/jehp.jehp_90_20
- 9. Al-Dmour, H., Masa'deh, R., Salman, A., Abuhashesh, M., & Al-Dmour, R. (2020). Influence of social media platforms on public health protection against the COVID-19 pandemic via the mediating effects of public health awareness and behavioral changes: Integrated model. *Journal of Medical Internet Research*, 22(8). https://doi.org/10.2196/19996