

## Original Research Article

### **Social media usage among Bangladeshi cancer patients: A cross-sectional study**

#### **Abstract**

**Background:** Social media platforms have become indispensable tools for communication and information exchange, playing an increasingly significant role in the healthcare landscape. Within the realm of cancer care, these platforms provide valuable avenues for accessing information, seeking emotional support, and connecting with peers facing similar challenges. However, despite the growing recognition of social media's potential benefits, its utilization and impact among cancer patients in specific contexts, such as Bangladesh, remain largely unexplored. This cross-sectional study examines social media usage among Bangladeshi cancer patients, investigating engagement frequency, encountered challenges, and sought information types.

**Methods:** Participants were recruited from private clinical chambers, data collection utilized face-to-face structured questionnaires covering social media usage, support challenges, sought cancer-related information, and trust levels in encountered information. Analysis comprised descriptive and inferential statistics, aiming to inform tailored interventions and support services for this population.

**Results:** The study included 124 Bangladeshi cancer patients, revealed prevalent social media usage among participants for communication and support purposes. However, participants reported lower frequencies of encountering cancer-related information compared to global trends. Trust levels in the information varied, influenced by cultural and contextual factors.

**Conclusion:** These findings underscore the significance of social media platforms in supporting Bangladeshi cancer patients while highlighting the importance of addressing challenges such as information trustworthiness and privacy concerns. Future research endeavors should focus on exploring context-specific interventions to enhance the effectiveness of social media-based support networks in this population.

**Key words:** Cancer, Social media, Bangladesh

## **Introduction**

Social media platforms have become pivotal channels for communication, information exchange, and social interaction.<sup>1</sup> Their pervasive influence has reshaped how individuals worldwide access and engage with information, extending to various facets of life, including healthcare.<sup>2</sup> Particularly within the healthcare landscape, social media platforms play a pivotal role in connecting patients, caregivers, healthcare providers, and advocacy groups, fostering supportive networks, and disseminating health-related information.<sup>3</sup>

The utilization of social media platforms by cancer patients has garnered significant attention due to its potential to address the multifaceted challenges associated with cancer diagnosis, treatment, and survivorship.<sup>4</sup> Globally, individuals grappling with cancer, alongside caregivers and survivors, have turned to social media platforms as invaluable resources for accessing information, seeking emotional support, sharing personal experiences, and connecting with others navigating similar challenges.<sup>5</sup> Through real-time conversations, participation in virtual support communities, and engagement in advocacy endeavors, social media empowers individuals, fostering resilience throughout their cancer journey.<sup>6</sup> However, despite the growing recognition of social media's significance in supporting cancer patients worldwide, there remains a notable gap in understanding its utilization and impact within specific contexts, such as Bangladesh. This study investigated social media use among Bangladeshi cancer patients, focusing on patterns of usage, challenges encountered in seeking peer support, and types of cancer-related information sought on social media platforms.

## **Methodology**

This is a cross-sectional study that used a convenience sampling technique to recruit participants meeting specific inclusion criteria: Bangladeshi individuals aged 18 years or above, diagnosed with cancer, and actively engaged in social media. Recruitment was conducted in the private clinical chambers of an oncologist (SK) in March 2024. Medical professionals assisted in identifying and approaching potential participants during their consultations. The data collection process involved a structured questionnaire administered by trained research assistants. Each question was explained to the participants, and responses were recorded using pen and paper. This face-to-face method ensured that participants fully understood the questions and provided accurate responses. Prior to involvement, participants were provided with detailed information about the study and signed the informed consent. Participants were informed of their right to withdraw from the study at any time without any consequences.

The study measured several key aspects related to the social media use of Bangladeshi cancer patients. Social media usage was assessed by examining the frequency and duration of social media activity, with participants reporting how often they used various platforms such as Facebook, Instagram, Twitter, YouTube, LinkedIn, and TikTok, and specifying their average daily usage time. Challenges in using social media for peer support were evaluated, focusing on issues like the reliability of information encountered, privacy concerns, and difficulties in finding relevant support groups. Participants also described any emotional burdens experienced during social media interactions, such as encountering disheartening or harassing content. Additionally,

the study explored the types of cancer-related information sought on social media, including treatment options, coping mechanisms, support groups, prevention tips, and success stories. Participants reported how often they came across cancer-related information, their level of trust in this information, and whether it influenced their decisions regarding cancer treatment or management. Lastly, the study examined participants' concerns about privacy and cancer-related stigma when using social media for peer support.

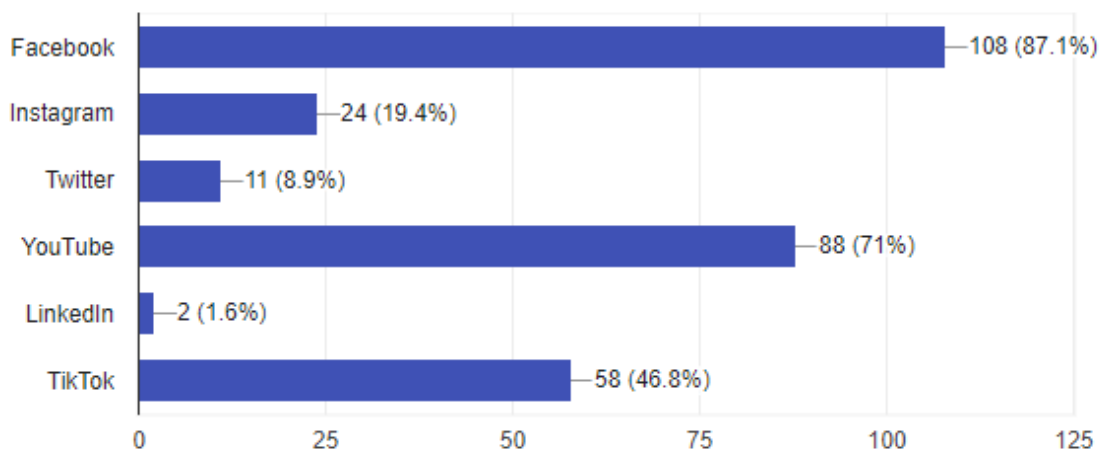
Once the data was collected, it was inputted into Google Forms by a trained research assistant to facilitate digital data management and analysis. This method ensured accuracy and efficiency in data handling while maintaining confidentiality, as no personally identifiable information was recorded. Data analysis involved descriptive statistics to summarize demographic characteristics and social media usage patterns. Inferential statistics, such as chi-square tests was used to explore associations between categorical variables. Statistical software SPSS was utilized for data analysis.

## Results

The study included 124 Bangladeshi cancer patients, with a near-equal distribution of males (50.8%) and females (49.2%). The age distribution was as follows: 21% were aged 18-25 years, 21% were aged 26-35 years, 18.5% were aged 36-45 years, 20.2% were aged 46-55 years, and 19.4% were aged 56 and above. Participants reported suffering from various types of cancer, including carcinoma of the stomach, testes, breast, ovary, gall bladder, thyroid gland, colon, esophagus, hepatocellular carcinoma, rectum, squamous cell carcinoma, lung, cervix, and pharynx.

Regarding smoking history, 42.3% of participants had smoked, with durations ranging from less than six months to more than ten years. Among current smokers, 71.7% reported smoking daily, with the majority smoking 10 cigarettes per day (47.2%).

Social media usage was prevalent among the participants, with 41.1% using social media for 1-2 hours daily, 20.2% for 2-4 hours, 19.4% for more than 4 hours, and 19.4% for less than 1 hour. The most commonly used platforms were Facebook, Instagram, and YouTube (Figure 1).

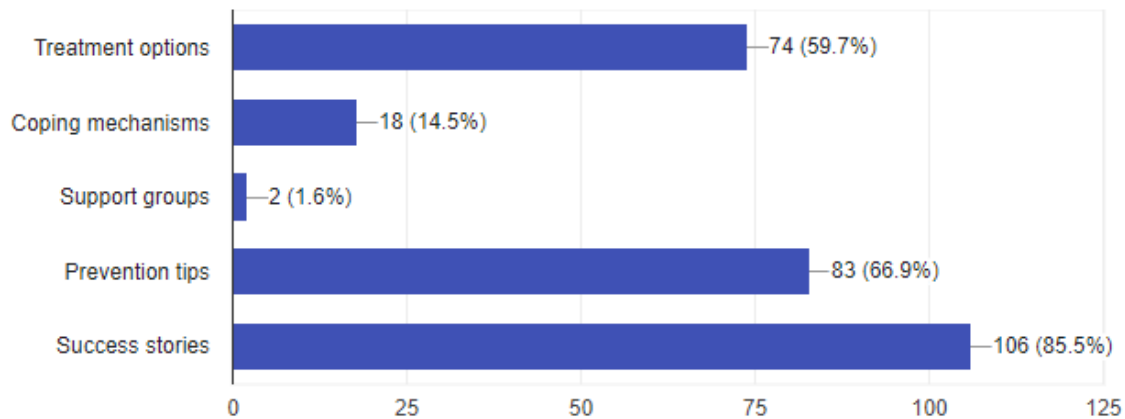


**Figure 1: Types of Social Media Platforms Used (N =124)**

Cancer-related information on social media was encountered rarely (32.3%), monthly (25%), weekly (17.7%), daily (16.9%), and never (8.1%). Trust in this information was moderate, with 30.6% finding it very trustworthy, 29.8% completely trustworthy, 21.8% not at all trustworthy, 9.7% moderately trustworthy, and 8.1% slightly trustworthy.

A significant majority (84.7%) did not value socializing with other young adults with cancer through social media, and 82.3% did not find it beneficial to make connections outside their personal networks for cancer-related support. However, 51.6% considered validating their emotional and mental health experiences through social media connections as very important, 27% as somewhat important, and 21.3% as not important at all.

Challenges in using social media for peer support were significant, with 73.4% experiencing an emotional burden, citing fearsome or uncomfortable content. Privacy concerns related to navigating cancer-related stigma were reported by 69.7% of participants. The types of cancer-related information sought included treatment options, success stories, coping mechanisms, support groups, and prevention tips (Figure 2).



**Figure 2: Type of cancer-related information seek on social media (N = 124)**

Chi-square tests were conducted to explore associations between demographic variables and social media usage patterns. There was no significant association between gender and the frequency of social media use [ $\chi^2(3, N=124) = 2.47, p = 0.481$ ]. Similarly, no significant association was found between age groups and the duration of social media usage [ $\chi^2(12, N=124) = 13.59, p = 0.327$ ].

An analysis of the relationship between smoking status and the frequency of encountering cancer-related information on social media revealed no significant association [ $\chi^2(4, N=123) = 3.12, p = 0.539$ ]. However, there was a significant association between the type of cancer and the importance placed on validating emotional and mental health experiences through social media [ $\chi^2(8, N=122) = 18.32, p = 0.019$ ], indicating that patients with certain types of cancer were more likely to value social media for emotional validation.

Additionally, a significant association was found between privacy concerns and the frequency of social media use [ $\chi^2(3, N=124) = 11.21, p = 0.011$ ], suggesting that participants with higher social media usage were more likely to report privacy concerns related to cancer-related stigma.

## **Discussion**

### ***Summary of findings***

The study sheds light on the social media usage patterns, challenges, and preferences of Bangladeshi cancer patients. Key findings include a prevalent utilization of social media among participants, with Facebook, Instagram, and YouTube being the most commonly used platforms. Despite the widespread usage, participants encountered cancer-related information infrequently on social media, and trust in this information varied. Challenges in utilizing social media for peer support were significant, with a majority experiencing emotional burdens and privacy concerns related to cancer-related stigma. Types of cancer-related information sought encompassed treatment options, success stories, coping mechanisms, support groups, and prevention tips.

### ***Prior studies***

This study's findings align with overarching trends observed among cancer patients regarding social media usage and information-seeking behaviors.<sup>7,8</sup> However, notable disparities exist, particularly in the frequency of encountering cancer-related information and the degree of trust placed in such information. These discrepancies may stem from cultural variations, differences in social media infrastructure, and variances in healthcare accessibility across different regions.<sup>9,10</sup> Previous studies have underscored the pivotal role of social media in providing cancer patients with access to informational resources, emotional support, and opportunities for peer connection.<sup>11</sup> Similarly, our findings corroborate the widespread use of social media platforms among Bangladeshi cancer patients, emphasizing the significance of these platforms as conduits for communication and support.

However, while some studies have reported a high frequency of encountering cancer-related information on social media platforms, our study reveals a lower incidence of such encounters among Bangladeshi participants. Moreover, trust levels in the information encountered vary, with a notable proportion expressing skepticism or moderate trust, diverging from findings in other contexts where trust tends to be higher. These disparities underscore the need for context-specific research to elucidate the nuanced dynamics of social media usage among diverse populations of cancer patients. Cultural norms, societal perceptions of cancer, and variations in healthcare infrastructure may influence individuals' engagement with social media and their perceptions of the information encountered. Despite these differences, overarching themes such as the importance of social media in providing emotional support and access to informational resources remain consistent across studies. By synthesizing findings from various contexts, researchers can gain a more comprehensive understanding of the multifaceted role of social media in supporting cancer patients worldwide.

### ***Strengths and limitations of the study***

One of the strengths of this study lies in its comprehensive exploration of social media usage among Bangladeshi cancer patients, filling a crucial gap in the existing literature. The utilization of a structured questionnaire, administered face-to-face by trained research assistants, ensured data accuracy and minimized response bias. However, several limitations warrant acknowledgment. The study's reliance on convenience sampling may introduce selection bias, limiting the generalizability of the findings to the broader population of Bangladeshi cancer patients. Moreover, the cross-sectional design precludes the establishment of causal relationships between variables.

### ***Recommendations for future research***

Future research endeavors should aim to address the limitations of this study by employing more representative sampling techniques and longitudinal study designs. Additionally, qualitative research methods, such as interviews or focus groups, could provide deeper insights into the lived experiences of Bangladeshi cancer patients regarding social media usage. Furthermore, exploring the efficacy of interventions aimed at mitigating the challenges associated with social media peer support among cancer patients represents a promising avenue for future investigation.

### **Conclusion**

In conclusion, this study highlights the significant role of social media in shaping the experiences of Bangladeshi cancer patients. Despite the benefits offered by social media in terms of information access and social support, participants encountered notable challenges, including privacy concerns and emotional burdens. By addressing these challenges and leveraging the potential of social media as a supportive platform, healthcare providers and policymakers can enhance the quality of care and support available to cancer patients in Bangladesh.

### **Data availability statement**

Available upon request from the corresponding author via email.

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