

Cancer Survivors' Views on Digital Support for Smoking Cessation and Alcohol Moderation: A Survey and Qualitative Study

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Abstract:

Background: Cancer survivors often face challenges related to smoking cessation and alcohol moderation, which are crucial for improving their long-term health outcomes. Digital support tools have shown promise in aiding behavioural change, but the perspectives of cancer survivors on such interventions remain underexplored.

Materials and Methods: This study, conducted at Shrimant Rajmata Vijayaraje Scindia Medical College and Hospital in SHIVPURI, MP, spanned duration of 3 years and involved 100 cancer survivors. A mixed-methods approach was employed, comprising a survey and qualitative interviews. Participants were surveyed to assess their willingness to use digital support for smoking cessation and alcohol moderation. Qualitative interviews delved into their experiences, barriers, and preferences regarding such interventions.

Results: Survey results indicated that 72% of participants were open to using digital support for smoking cessation and 68% for alcohol moderation. Qualitative findings highlighted key themes, including the desire for personalized interventions, concerns about privacy and security, and the importance of peer support networks. Notably, participants emphasized the need for easy-to-use, accessible, and culturally sensitive digital tools.

Conclusion: Cancer survivors express a substantial interest in digital support for smoking cessation and alcohol moderation. To effectively engage this population, digital interventions should be tailored to individual needs, address privacy concerns, and incorporate peer support elements. This study underscores the potential of digital platforms to enhance the health and well-being of cancer survivors by addressing their tobacco and alcohol use.

Keywords: Cancer survivors, digital support, smoking cessation, alcohol moderation, survey, qualitative study, personalized interventions, privacy, peer support, healthcare, behavior change.

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Introduction

Cancer survivorship is a complex journey marked by numerous challenges, including the need to adopt healthier behaviours such as smoking cessation and alcohol moderation. These behavioural changes are essential for not only improving survivors' overall quality of life but also reducing the risk of cancer recurrence and other comorbidities [1, 2]. While conventional interventions have shown some efficacy in aiding smoking cessation and alcohol moderation, there is a growing interest in exploring the potential of digital support tools to facilitate and sustain these behavioural changes among cancer survivors [3, 4]. Digital health interventions, such as smartphone apps, web-based programs, and wearable devices, have demonstrated promise in promoting behaviour change across various populations [5, 6]. These

tools offer unique advantages, including accessibility, scalability, and the ability to provide personalized and real-time support [7]. However, the perspectives of cancer survivors regarding the use of digital support for smoking cessation and alcohol moderation remain underexplored in the literature. Understanding the attitudes, preferences, and barriers faced by cancer survivors is crucial for designing effective digital interventions that align with their specific needs [8]. This study aims to bridge this gap by conducting a survey and qualitative investigation among cancer survivors at Shrimant Rajmata Vijayaraje Scindia Medical College and Hospital in SHIVPURI, MP, over a three-year period. By examining cancer survivors' views on digital support for smoking cessation and alcohol moderation, this research contributes to the

growing body of literature on digital health interventions and survivorship care. It seeks to inform the development of tailored and culturally sensitive digital tools that can enhance the long-term health and well-being of cancer survivors in India and beyond.

Materials and Methods

Study Design and Setting:

This research employed a mixed-methods approach conducted at Shrimant Rajmata Vijayaraje Scindia Medical College and Hospital in SHIVPURI, MP, over three-year duration. The study aimed to explore cancer survivors' perspectives on the use of digital support for smoking cessation and alcohol moderation.

Participants:

The study included 100 cancer survivors who met the following inclusion criteria: (1) diagnosed with cancer, (2) aged 18 years or older, and (3) able to provide informed consent. Participants were recruited through convenience sampling from the hospital's outpatient oncology clinics.

Survey Instrument:

A structured questionnaire was developed to assess participants' attitudes and preferences regarding digital support for smoking cessation and alcohol moderation. The survey included items related to their willingness to use digital tools, concerns about

privacy and security, and preferences for intervention features. The survey was administered face-to-face by trained research assistants.

Qualitative Interviews:

Semi-structured interviews were conducted with a subset of participants (n=20) to explore their experiences and in-depth perspectives on digital support interventions. The interview guide included open-ended questions about their previous attempts to quit smoking or moderate alcohol use, their perceptions of digital interventions, barriers encountered, and suggestions for improvement. Interviews were audio-recorded and transcribed verbatim.

Data Analysis:

Quantitative data from the surveys were analysed using descriptive statistics, including frequencies and percentages, to summarize participants' responses regarding their willingness to use digital support. Qualitative data from the interviews were analysed using thematic analysis [9].

Transcripts were coded independently by two researchers, and emergent themes were identified and refined through iterative discussions.

Results

The study enrolled 100 cancer survivors, and their characteristics are summarized in Table 1 below:

Table 1: Participant Characteristics

Characteristic	Frequency (n=100)	Percentage (%)
Gender (Male)	45	45%
Gender (Female)	55	55%
Age (years)	Mean: 57.4 Range: 34-78	- -
Cancer Type		
- Breast	28	28%
- Lung	22	22%
- Colorectal	18	18%
- Prostate	12	12%
- Others	20	20%

Survey Results: The survey assessed participants' willingness to use digital support for smoking cessation and alcohol moderation. Table 2 presents the survey responses.

Table 2: Survey Responses on Digital Support

Survey Question	Yes	No	Unsure
Would you be willing to use digital support for smoking cessation?	72	18	10
Would you be willing to use digital support for alcohol moderation?	68	20	12
Do you have concerns about privacy and security when using digital support?	58	24	18

Qualitative interviews provided deeper insights into participants' views. Thematic analysis revealed several key themes, including:

Desire for Personalization:

Many participants expressed the importance of personalized interventions that consider their unique needs and preferences.

Privacy and Security Concerns:

A significant portion of respondents had concerns about the privacy and security of their health data when using digital tools.

Peer Support:

Participants emphasized the value of peer support networks within digital interventions.

Table 3: Themes from Qualitative Interviews

Themes	Description
Desire for Personalization	Participants stressed the need for interventions that are tailored to their individual circumstances.
Privacy and Security Concerns	Concerns were raised regarding the protection of personal health information when using digital tools.
Peer Support	Many participants highlighted the importance of connecting with others who share similar experiences through digital platforms.

Overall, the integration of quantitative and qualitative findings underscores the potential of digital support for smoking cessation and alcohol moderation among cancer survivors. It also highlights the importance of addressing privacy concerns and incorporating personalization and peer support elements into digital interventions.

Discussion

Cancer survivors face unique challenges, including the need to adopt healthier behaviors such as smoking cessation and alcohol moderation to improve their long-term health outcomes [1]. This study investigated the perspectives of cancer survivors at Shrimant Rajmata Vijayaraje Scindia Medical College and Hospital in SHIVPURI, MP, regarding the use of digital support for these behavioural changes. The discussion presents a synthesis of the results in the context of existing literature and explores implications for future interventions.

The survey findings indicated a substantial willingness among cancer survivors to use digital support for smoking cessation (72%) and alcohol moderation (68%). This aligns with the broader literature on digital health interventions, which has shown that individuals are increasingly open to leveraging technology for behaviour change [5, 6]. It suggests that cancer survivors may perceive digital tools as accessible and potentially effective in addressing their tobacco and alcohol use.

Privacy and security concerns emerged as a notable theme in the qualitative interviews, with 58% of participants expressing reservations. This finding resonates with the broader discourse on digital health interventions, where privacy issues remain a prominent consideration [7]. To address these concerns, future digital support interventions should prioritize robust data protection measures, transparency in data handling, and clear privacy policies to enhance user trust and mitigate barriers to adoption. Participants in this study emphasized the importance of personalized interventions that account for their unique needs and preferences. Personalization has been shown to enhance engagement and efficacy in digital health

interventions [8]. Therefore, tailoring digital support to individual survivor profiles, including cancer type and treatment history, can contribute to better outcomes.

Peer support emerged as a significant theme, with participants valuing the opportunity to connect with others who share similar experiences through digital platforms. Peer support has been recognized as a potent mechanism for behaviour change and coping among cancer survivors [9]. Incorporating peer support features within digital interventions may enhance engagement and provide emotional support.

This study has several limitations, including a convenience sampling approach that may introduce selection bias. The findings may also not be generalizable to all cancer survivor populations. Future research should aim for more diverse and representative samples. Additionally, the study did not assess the effectiveness of specific digital interventions, which should be explored in future studies.

Conclusion

In conclusion, this study sheds light on the favourable attitudes of cancer survivors toward digital support for smoking cessation and alcohol moderation. It underscores the potential of digital platforms to enhance the health and well-being of this population, provided that privacy concerns are addressed, interventions are personalized, and peer support networks are integrated. These findings have implications for the development and implementation of digital interventions tailored to the needs of cancer survivors.

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