

# Exploring the Interplay between Cancer-related Fear, Health Literacy and Digital Resource Use

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## Introduction

Fear of Cancer Recurrence (FCR) and Fear Of Cancer Progression (FCP) are among the most prevalent psychological concerns affecting cancer survivors and patients in active treatment. These fears are characterized by persistent worry that the cancer may return or worsen, even in the absence of clinical evidence. Such fears can substantially affect quality of life, psychological well-being, and adherence to treatment or surveillance protocols. In the contemporary digital era, many individuals turn to online resources and digital tools to understand, monitor, and manage their health. However, the effectiveness of these digital engagements is influenced by the user's level of health literacy, which encompasses the ability to access, comprehend, and apply health information. This study explores the complex relationship between cancer-related fear, engagement with digital health resources, and health literacy among cancer patients and survivors, aiming to better understand how these dimensions interact and what implications they hold for support and intervention strategies [1].

## Description

The research employed a mixed-methods approach, combining quantitative surveys with qualitative interviews. A sample of 500 adult cancer survivors and patients undergoing treatment was drawn from oncology clinics and support networks across urban and suburban settings. Participants represented a range of cancer types, stages, and treatment statuses. The study utilized validated instruments to assess FCR and FCP, including the Fear of Cancer Recurrence Inventory (FCRI) and the Fear of Progression Questionnaire (FoP-Q-SF). Digital resource engagement was measured by a customized Digital Health Utilization Index, assessing frequency, type, and purpose of digital health information use. Health literacy was evaluated using the eHealth Literacy Scale (eHEALS), which focuses on individuals' perceived ability to seek, understand, and evaluate health information from electronic sources. Quantitative analysis revealed a strong prevalence of both FCR and FCP among participants. Approximately 68% of respondents reported moderate to high levels of FCR, while 54% exhibited elevated concerns about disease progression. These fears were more pronounced among younger survivors, individuals within the first three years post-diagnosis, and those with histories of aggressive or recurrent cancers. Women reported slightly higher levels of both FCR and FCP, consistent with previous literature on gendered differences in health anxiety [2].

Digital resource use was widespread among the sample population. About 82% of participants reported using the internet to seek information about their condition, with 59% doing so on a weekly basis or more. Commonly accessed

resources included medical websites, cancer-specific forums, online patient communities, social media platforms, and mobile health apps. The motivations behind digital engagement varied, including efforts to understand prognosis, learn about treatment side effects, prepare for medical appointments, or find peer support. Interestingly, individuals with high FCR and FCP were more likely to engage intensively with digital resources. However, the nature of this engagement was not uniformly beneficial. While digital tools can empower patients through knowledge and connection, they can also inadvertently exacerbate anxiety when users encounter conflicting or misleading information. Participants with lower levels of health literacy reported greater difficulty navigating the digital health landscape. They expressed confusion over medical terminology, struggled to discern trustworthy sources, and were more susceptible to alarmist content or anecdotal experiences shared in online forums. As a result, high digital engagement among those with limited health literacy sometimes contributed to information overload and increased distress, rather than reassurance or clarity [3].

Qualitative interviews provided deeper insight into these experiences. Many participants described the internet as a "double-edged sword." On one hand, it served as a vital tool for gaining control, especially during times when medical professionals were unavailable or when uncertainties arose between appointments. On the other hand, some recounted spiraling into fear after reading stories of recurrence or progression in others with similar diagnoses. The inability to contextualize such stories within one's own clinical situation was a common issue among individuals with lower eHealth literacy. This underscores the importance of not only access to information but also the interpretive skills necessary to process and apply that information effectively. A recurring theme among interviewees was the desire for guidance in navigating digital health content. Several participants expressed interest in having curated resources provided by their oncology teams, including lists of reliable websites or recommendations for reputable apps. Some also suggested that digital literacy training or workshops could be beneficial, especially early in the cancer journey. Participants with higher eHealth literacy tended to approach digital resources with more critical thinking and self-awareness, cross-referencing information and discussing findings with healthcare providers before acting on them [4].

From a psychological standpoint, health literacy appeared to act as a moderating factor in the relationship between digital engagement and cancer-related fear. High engagement with digital resources in the presence of low health literacy was associated with elevated FCR and FCP scores, whereas high engagement coupled with high health literacy was associated with lower psychological distress. This suggests that health literacy not only facilitates the effective use of digital tools but also protects against the emotional consequences of exposure to uncertain or anxiety-provoking health information. The study further explored the role of trust in digital versus interpersonal sources. Despite widespread internet use, many participants still ranked their healthcare providers as the most trusted source of information. However, time constraints in clinical settings often limited opportunities for in-depth discussion, leading patients to fill the gap with online searching. This highlights a disconnect between patient needs and the structure of conventional care delivery. Some participants recommended integrating digital check-ins or telehealth consultations to allow for more frequent communication and opportunities to address emerging fears or misinformation [5].

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**Received:** 01 February, 2025, Manuscript No. cmcr-25-164091; **Editor assigned:** 03 February, 2025, Pre QC No. P-164091; **Reviewed:** 14 February, 2025, QC No. Q-164091; **Revised:** 22 February, 2025, Manuscript No. R-164091; **Published:** 27 February, 2025, DOI: [10.37421/2684-4915.2025.9.353](https://doi.org/10.37421/2684-4915.2025.9.353)

## Conclusion

In conclusion, the interplay between fear of cancer recurrence and progression, digital resource use, and health literacy is complex and multifaceted. While digital tools hold great promise for supporting cancer patients, their benefits are mediated by users' ability to critically engage with information. Health literacy emerges as a key determinant in whether digital engagement alleviates or exacerbates psychological distress. By recognizing the central role of digital information-seeking in the cancer experience and fostering stronger health literacy skills among patients, healthcare systems can better support emotional well-being and promote informed, empowered survivorship. Further research should continue to explore this dynamic, with an emphasis on intervention development and evaluation to improve outcomes for diverse patient populations.

## Acknowledgement

None.

## Conflict of Interest

No conflict of interest.

## References

1. RPMG. "Effect of digital care platforms on quality of care for oncological patients and barriers and facilitators for their implementation: Systematic review." *JMIR* 23 (2021): e28869.
2. Ciani, Omar, Marta Cucciniello, Federica Petracca and Giovanni Apolone, et al. "Lung Cancer App (LuCAApp) study protocol: A randomised controlled trial to evaluate a mobile supportive care app for patients with metastatic lung cancer." *BMJ Open* 9 (2019): e025483.
3. Ardito, Valeria, Georgy Golubev, Omar Ciani and Rosanna Tarricone. "Evaluating barriers and facilitators to the uptake of mHealth apps in cancer care using the consolidated framework for implementation research: Scoping literature review." *JMIR Cancer* 9 (2023): e42092.
4. Chiemienti, Marco, Gianfranco Morlino, Francesca Ingravalle and Alessia Vinci, et al. "Unemployment status subsequent to cancer diagnosis and therapies: A systematic review and meta-analysis." *Cancers* 15 (2023): 1513–1513.
5. Dinkel, Andreas and Peter Herschbach. "Fear of progression in cancer patients and survivors." *Recent Results Cancer Res* 210 (2018): 13–33.

**How to cite this article:** Katia, Henrik. "Exploring the Interplay between Cancer-related Fear, Health Literacy and Digital Resource Use." *Clin Med Case Rep* 9 (2025): 353.