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The crucial role of communication in managing the long-term health impact of cancer

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Abstract: Patients with cancer often do not fully understand how cancer and its treatments can impact their long-term health. This varies depending on the type and stage of cancer, as well as the specific treatments received.

Effective communication between doctors and patients plays a significant role in managing these long-term health effects. Physicians should offer patients information about the potential long-term consequences of cancer and its treatments, as well as discuss ways to manage these effects.

The main goal of this research was to examine how communication between cancer patients and their doctors influences the management of long-term effects on overall health.

A quantitative study was carried out involving members of four support groups for individuals affected by cancer and their families on Facebook. Participants were chosen from these groups for a cross-sectional survey, where they were asked to fill out a detailed questionnaire regarding their knowledge and experiences related to the lasting effects of cancer treatment.

The results of the study indicated that most patients were aware of how cancer treatment could affect their health in the long run. Many participants mentioned that they were not properly informed about the lasting impact and are now dealing with issues such as heart problems, kidney issues, fertility challenges, cognitive changes, and emotional struggles. In light of this situation, we believe it is essential to educate and empower patients to handle the long-term consequences of cancer. Patients should feel encouraged to ask questions, seek out information, and advocate for their health concerns. Most patients who participated in this study reported that they would have found it helpful to have support from cancer organizations or online resources providing guidance on managing long-term health issues. One solution that could help improve the quality of life of cancer patients would be to foster collaboration between patients and health professionals.

Keywords: doctor-patient communication, long-term adverse effects, cancer, cancer patients, health information, Romania

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Background

Over the past few decades, there have been advancements in cancer treatment resulting in better survival rates. However, with more cancer survivors emerging, there is a growing awareness of the long-term negative effects of both cancer and its treatments. These effects can greatly impact a patient's well-being and overall health. Some of the long-term effects may involve issues such as heart disease, kidney problems, cognitive difficulties, mental health disorders, and fertility challenges. Despite the severity of these issues, many patients are not sufficiently informed about the long-term repercussions of their treatment. Effective communication between healthcare providers and patients plays a significant role in managing these lasting effects. It is essential to have ongoing communication to help patients understand risks, identify symptoms and take proactive measures to maintain their well-being. Unfortunately, research indicates that there are often communication barriers that leave patients feeling unsupported when it comes to addressing long-term treatment-related health issues. This study aims to explore these communication gaps and suggest strategies for enhancing outcomes through information sharing and support systems. In Romania several studies have sought to understand how patients and healthcare professionals seek information, identify their information needs, and assess their training requirements for information literacy (Porumbeanu 2009a, 2009b; Porumbeanu Madge, 2013). With an increasing number of patients every year (Ionescu et al., 2021), these efforts underscore the importance of education and the availability of health resources, in enhancing patient care and outcomes.

Long-term adverse effects of cancer treatment

Several studies have highlighted the enduring adverse effects of cancer treatment. Among individuals who have battled cancer, issues related to the heart are quite common, particularly in those who underwent anthracycline therapy and radiation treatment. Studies suggest that these patients face a risk of developing conditions like heart failure, heart attacks, and other cardiovascular ailments (Strongman et al., 2019). Additionally, kidney problems pose a concern, particularly in patients treated with nephrotoxic chemotherapy agents (Perazella, 2012).

Cognitive challenges, often known as "chemo brain," affect a number of cancer survivors by impacting functions like memory, attention span, and decision-making abilities (Janelsins et al., 2014). Psychological struggles such as depression, anxiety, and PTSD are also prevalent among survivors; research indicates that nearly one-third of them grapple with psychological distress (Yi & Syrjala, 2017).

A recent study conducted by Schmidt et al. (2022) revealed that over one-third of cancer survivors free from the disease reported physical, psychological, cognitive, social, and sexual difficulties four years post-diagnosis.

Importance of doctor-patient communication

Effective communication plays a crucial role in handling the lasting effects of a health situation. Epstein and Street (2007) suggest that good communication can enhance satisfaction, adherence to treatment, and overall health outcomes. However, many patients express dissatisfaction with the amount and clarity of information they receive regarding long-term risks (Chua et al., 2018). This lack of communication may result in ineffective management of long-term health issues and a reduced quality of life for survivors.

Patient awareness and education

Studies indicate that educating patients can significantly improve outcomes for individuals who have survived cancer. For instance, informing patients about side effects and ways to manage them can empower them to play an active role in their healthcare and promptly seek medical help (McCorkle et al., 2011). Despite this, many patients lack knowledge about the enduring effects of their treatment.

Health information seeking behavior and decision-making

Recent research by Madge et al. (2023) examines how patients undergoing breast cancer surgery seek health information and make decisions. The study underscores the importance of providing patients with accessible health information to assist them in making informed decisions. The research indicates that patients who are well-informed tend to participate in their treatment plans and make informed decisions regarding their healthcare.

Using support resources

Support resources like online forums, support groups, and educational materials play a vital role in assisting patients in managing long-term side effects. Studies demonstrate that patients who engage with these resources often develop coping strategies and experience enhanced mental well-being. The emergence of support communities, particularly on social networking sites such as Facebook, has created new avenues for cancer patients to access emotional support, exchange information, and interact with peers (Sumanu, 2023). Nevertheless, the accessibility and utilization of these resources can vary significantly among individuals; some patients may be unaware of their existence or uncertain about how to utilize them.

Information literacy and health information literacy

In Romania, educational programs focusing on information literacy and health information literacy have been introduced to enhance the capacity of healthcare professionals and patients to access and utilize health-related information efficiently (Madge & Robu, 2020). These endeavors are essential for equipping medical practitioners with the necessary skills to address patient education needs effectively. Despite these initiatives, challenges persist in integrating information literacy into medical training and clinical practice.

Furthermore, a study conducted by Porumbeanu and Madge in 2009 highlights the significance of providing trustworthy health information to the population in Romania. It underscores the necessity for patients to have resources for their healthcare needs. This aligns with research from medical libraries, indicating that the integration of electronic resources and new technologies has greatly enhanced information accessibility and literacy (Porumbeanu, 2009b; Madge & Robu, 2019).

Moreover, Madge and Robu (2020) discuss the challenges surrounding the implementation of information literacy programs in medical schools despite their crucial importance. They also explored how health literacy influences behavior towards health information among students in Romania, emphasizing its role in enhancing patient care and outcomes (Madge & Robu, 2020).

Health literacy is essential in cancer treatment for both patients and caregivers, as it impacts treatment adherence, decision-making processes, patient satisfaction, and overall well-being (Sumanu & Madge, 2023). The study sheds light on the difficulties faced by cancer patients and their caregivers in Romania when dealing with health information to make informed decisions about their care. This provides insights for healthcare professionals, policymakers, and advocacy groups supporting patients.

Survivorship support for individuals who have overcome adult cancers started over three decades ago when the National Coalition for Cancer Survivorship was established by members from 20 groups. Their goal was to focus on survivorship concerns and involve not only patients but also their loved ones and caregivers (Jacobs & Shulman, 2017). Since then, improvements have been seen in cancer treatment services, leading to obstacles in offering ongoing care to patients and survivors dealing with cancer as a long-term condition.

Research objectives

The objectives of this study are as follows:

- **Examining awareness of long-term negative effects:** The main aim is to gauge how well cancer patients understand the potential long-term negative impact of cancer and its treatments on their overall well-being. This includes assessing the level of knowledge patients have about cardiovascular, renal, cognitive, and psychological complications that may arise post-cancer treatment. By measuring awareness, the study aims to pinpoint gaps in understanding and areas where patients may feel lacking in information.

- **Assessing the quality of doctor patient communication:** Another important goal is to assess how effectively healthcare providers communicate with cancer patients about long-term negative effects. This involves examining how well physicians convey information about risks and management strategies related to these effects. The study aims to determine whether patients perceive their doctors' information as clear and comprehensive and whether there are aspects of communication that require improvement.
- **Identifying long-term health issues following treatment:** A crucial objective is identifying and documenting the typical long-term health challenges that cancer patients encounter after receiving treatment. This involves classifying the negative impacts observed, such as heart-related issues, kidney problems, fertility issues, changes in thinking abilities, and emotional or mental effects. Recognizing the frequency and characteristics of these challenges can assist in customizing educational and support initiatives for patients.
- **Developing suggestions for professionals:** With the study's outcomes in mind, the goal is to create practical, evidence-based recommendations for healthcare providers to enhance their communication and assistance to cancer patients. This could involve proposing actions such as providing more written materials, offering access to counseling or therapy services, scheduling regular follow-up meetings focusing on long-term consequences, and arranging informational events or workshops.

By accomplishing these goals, the research aims to enrich comprehension of how patient awareness, communication practices and management of enduring effects interact.

Methods

Study design

This study employed a cross-sectional approach to explore the interaction between medical professionals and patients concerning the lasting negative impacts of cancer and its therapies on overall well-being. The research focused on individuals who are members of four support communities for Romanian cancer patients and their families on Facebook.

Participants

The study population included 146 cancer patients who were part of the Facebook support groups. These participants were chosen to ensure representation in terms of age, gender, cancer subtype, and disease stage at diagnosis.

Data collection

Information was gathered through a survey designed to collect comprehensive insights into the participants' encounters and perspectives regarding doctor-patient conversations and the enduring consequences of cancer treatment. The questionnaire was accessible from November 1, 2023, until December 17, 2023. There were a total of 204 survey views, with 146 completed responses, yielding a completion rate of 71.6%.

The survey included a series of 12 questions covering details about cancer type and stage classification, interactions with healthcare providers, understanding of long-term side effects, and utilization of supportive services.

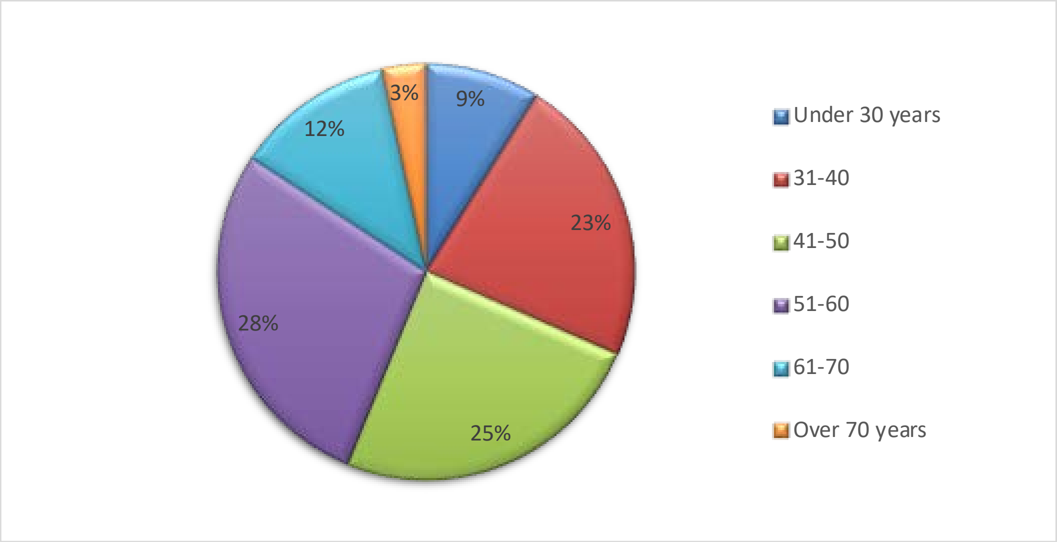
Data analysis

An analysis was conducted on the data gathered from the 146 individuals who participated in the survey. The aim was to present an overview of how doctors and patients communicate about the potential long-term side effects of cancer and its treatments. The analysis examined aspects such as patient demographics, level of awareness, clarity of information provided by healthcare professionals, post-treatment health concerns, and the utilization of available support services.

Age distribution

The age distribution among the respondents is visually represented in Figure 1. The largest portion of participants (28%) fell within the 51–60 age bracket, closely followed by those in the 41–50 age range (25%).

Figure 1: Age distribution of participants

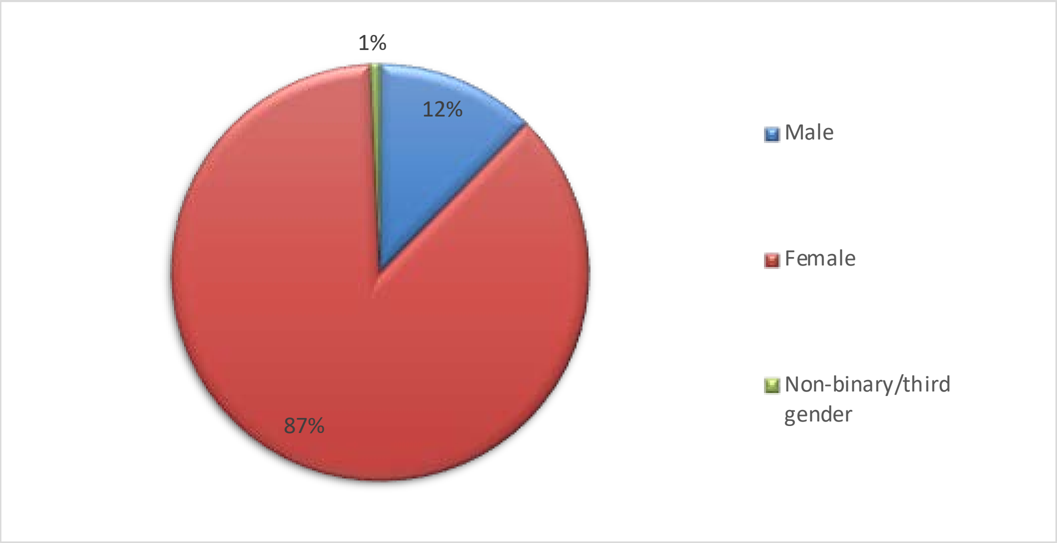


Gender distribution

The gender breakdown revealed a proportion of female respondents (87%) with males accounting for 12% of the surveyed individuals, as shown in *Figure 2*. Additionally, there was one respondent who identified as non-binary.

Figure 2: Gender distribution of participants

Type of cancer



Among the surveyed individuals, breast cancer (50.3%) and lymphoma (31%) emerged as the most frequently cited types of cancer, as shown in *Table 1*. Other reported types included colorectal cancer (5.5%), ovarian cancer (5.5%), and prostate cancer (2.8%).

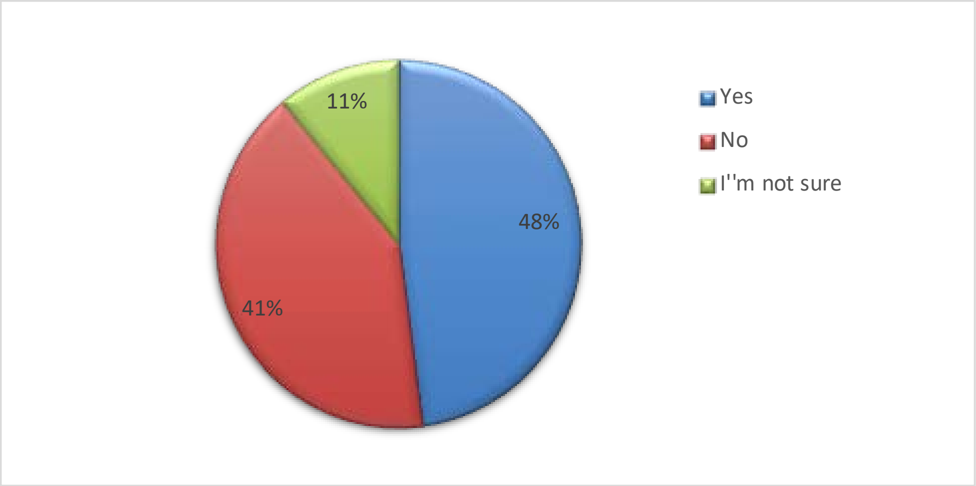
Table 1: The type of cancer the participants were diagnosed with

TYPE OF CANCER	ANSWERS	PERCENT
Breast cancer	**73**	**50,3%**
Lymphoma	**45**	**31%**
Colorectal cancer	**8**	**5,5%**
Ovarian cancer	**8**	**5,5%**
Prostate cancer	**4**	**2,8%**
Skin cancer	**3**	**2,1%**
Stomach cancer	**2**	**1,4%**

Cancer stage at diagnosis

The stages of cancer at diagnosis varied, with the majority of patients diagnosed at stage 2 (28.1%) and stage 3 (30.1%), as shown in *Figure 3*.

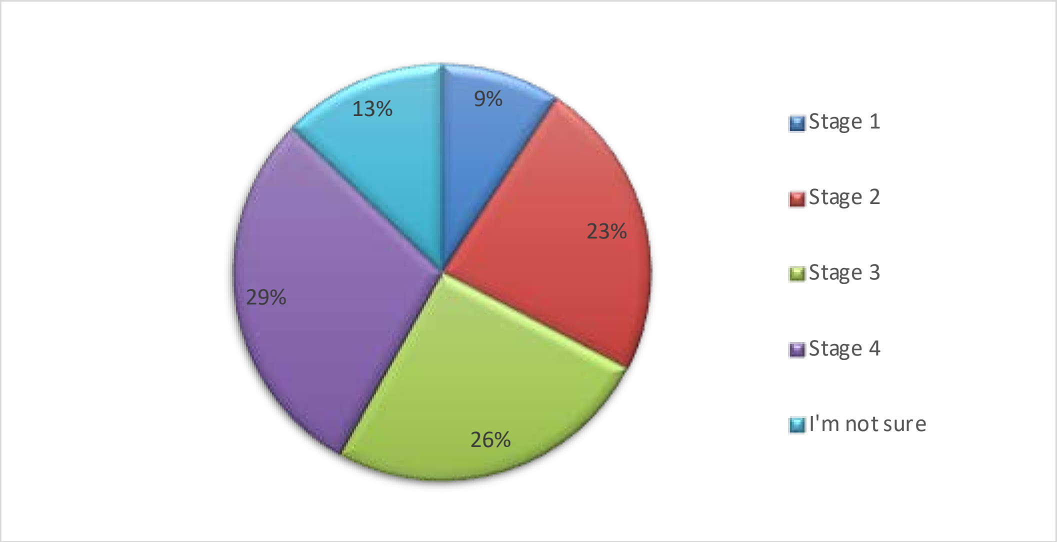
Figure 3: Cancer stage at diagnosis of the participants



Awareness and communication

Regarding awareness of the long-term adverse effects of cancer and its treatments, 48% of respondents reported being informed by their doctors, while 41% were not informed. Additionally, 11% were unsure if they had been informed, as shown in *Figure 4*.

Figure 4: Awareness of long-term adverse effects



Clarity of information

The clarity of the information provided by healthcare providers was evaluated, with only 18.5% of respondents rating the information as very clear, as shown in *Table 2*. A significant portion of patients (30.1%) found the information somewhat clear, while 24.7% found it somewhat unclear or very unclear (13%).

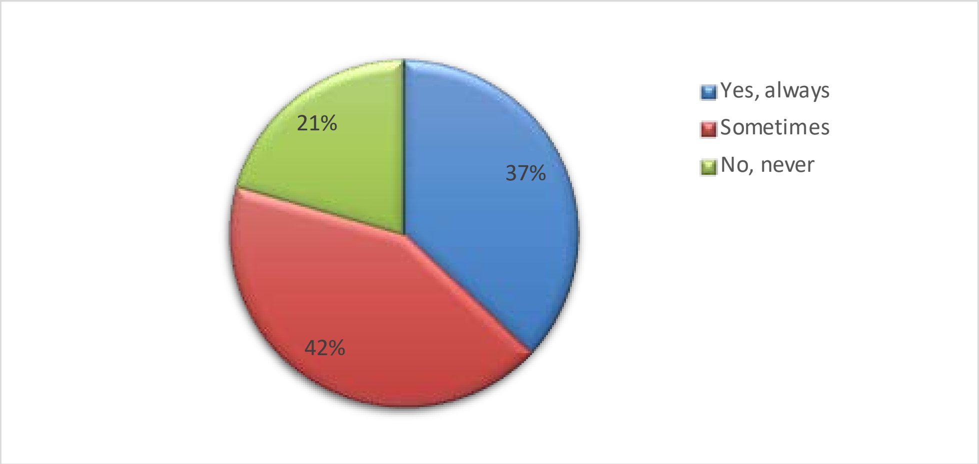
Table 2: Clarity of the information provided by healthcare providers

CLARITY OF THE INFORMATION	ANSWERS	PERCENT
Very clear	**27**	**18,5%**
Somewhat clear	**44**	**30,1%**
Neutral	**20**	**13,7%**
Somewhat unclear	**36**	**24,7%**
Very unclear	**19**	**13,0%**

Comfort in asking questions

The respondents' comfort in asking questions about the long-term effects was also assessed. Only 37% felt comfortable always asking questions, 42% sometimes felt comfortable, and 21% never felt comfortable, as shown in *Figure 5*.

Figure 5: Participants' comfort in asking questions about their illness



Health issues post-treatment

A significant number of patients reported experiencing various health issues post-treatment. Emotional or psychological effects were the most common aspects (57.5%), followed by cognitive changes (47.3%), infertility (17.8%), cardiovascular diseases (15.8%), and renal issues (14.4%), as shown in *Table 3*.

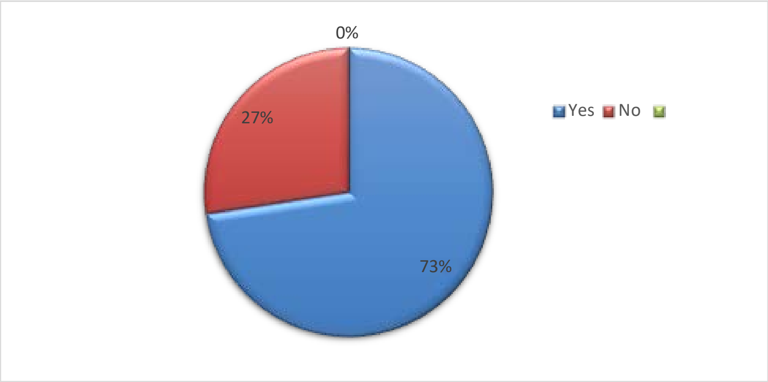
Table 3: Health issues reported by participants

REPORTED HEALTH ISSUES	ANSWERS	PERCENT
Emotional or psychological effects (depression, anxiety, etc.)	**84**	**57,5%**
Cognitive changes (memory loss, difficulty concentrating, etc.)	**69**	**47,3%**
Infertility	**26**	**17,8%**
Cardiovascular disease	**23**	**15,8%**
None	**22**	**15,1%**
Kidney disease	**21**	**14,4%**

Utilization of support resources

A significant number of participants (73%) looked for information or advice from support organizations or online platforms, as shown in *Figure 6*.

Figure 6: Seeking information from support resources



Beneficial resources

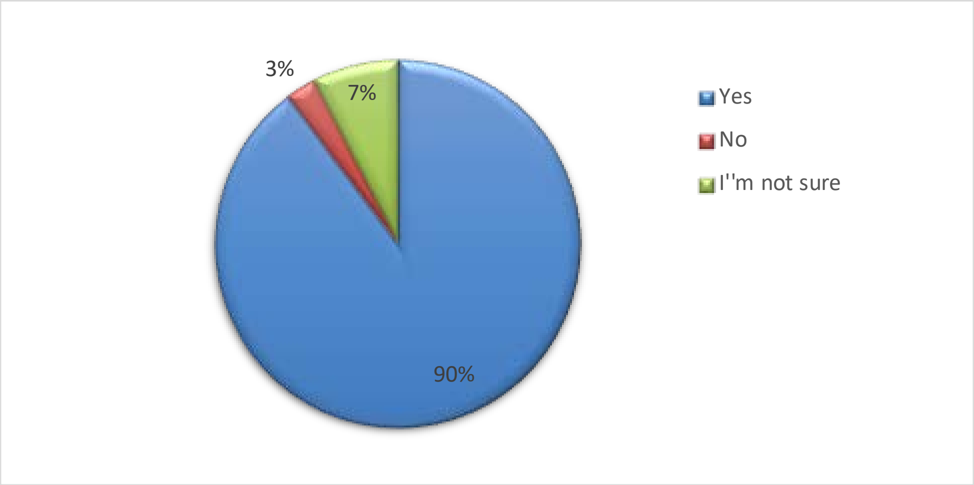
For those who sought help, online communities and support groups (56.8%) as well as medical

(22.6%) and cancer support groups (19.9%) were reported, as shown in *Table 4*. Publications (54.8%) were considered the most helpful resources. Other options included therapy or counseling sessions.

Table 4: Where did the participants search for additional support

ADDITIONAL SUPPORT	ANSWERS	PERCENT
Online forums or support groups	**83**	**56,8%**
Medical literature or online articles	**80**	**54,8%**
Counseling or therapy	**33**	**22,6%**
Cancer support organizations	**29**	**19,9%**

An overwhelming majority of respondents (90%) expressed a need for more details on managing long term health risks after treatment, as shown in *Figure 7*.
Figure 7: Need for additional information



Recommendations for healthcare providers

Respondents suggested several ways healthcare providers could improve information dissemination and support. These included scheduling regular follow-up appointments focused on long-term effects (70.5%), providing access to counseling or therapy (48.6%), offering more printed materials (24.7%), and organizing informational workshops or sessions (28.1%), as shown in *Table 5*.
Table 5: Recommendations for healthcare providers from participants

RECOMMENDATIONS FOR HEALTHCARE PROVIDERS	ANSWERS	PERCENT
Schedule regular follow-up checks with a particular focus on long-term effects	**103**	**70,5%**
Provide access to counseling or therapy	**71**	**48,6%**

Provide workshops or information sessions	**41**	**28,1%**
Provide more printed materials or brochures	**36**	**24,7%**

Ethical considerations

Informed consent

Before taking part in the research, all potential participants received information about the study's goals, methods, and possible risks and benefits. This information was presented in an understandable manner to ensure that participants fully grasped what their involvement would entail. Participants were informed that their participation was voluntary and that they had the option to withdraw from the study at any time without facing any consequences. Consent was obtained electronically, with participants required to acknowledge their understanding and agreement before proceeding with the questionnaire.

Confidentiality and anonymity

All information gathered from the questionnaire was made anonymous to protect identities. Unique identifiers were used for tracking responses while ensuring that personal details remained confidential. Data storage followed strict security measures, with access limited only to the research team.

Minimization of harm

The questionnaire was thoughtfully crafted to avoid asking distressing or invasive questions. When discussing health issues and personal experiences with cancer, we took care to ask questions in an appropriate manner. Participants were reminded that they could choose to skip any questions they felt uncomfortable answering and could stop the questionnaire at any point.

Data integrity and use

Throughout the study, we maintained the integrity of the data by collecting and recording it accurately. All analyses were conducted meticulously, and the data was used solely for the purposes stated in the informed consent form.

Cultural sensitivity

Given that our study focused on cancer patients, we approached it with an understanding of their cultural sensitivities and norms. We made sure that the language used in our questionnaire and communications was culturally appropriate and respectful. This approach aimed to build trust and openness among participants, encouraging them to provide honest responses.

Addressing misinformation

An important aspect of our study was to identify any communication gaps or misinformation about the long-term adverse effects of cancer treatment. We were ethically committed to addressing any misinformation encountered during our research.

Results

The study findings point to areas where communication between healthcare providers and cancer patients can be improved. While many patients are informed about the long-term side effects of their treatment, a significant number still feel uncertain about the information provided. This indicates the need for healthcare providers to improve the way they communicate, ensuring that information is not only shared but also clearly understood by patients.

The prevalence of psychological problems among survivors indicates that current support systems may be deficient. This is reinforced by the number of patients seeking additional help through online platforms and written resources. These findings emphasize the importance of ongoing support for cancer survivors that addresses both their physical and psychological well-being.

The expressed need for guidance on long-term health risk management reveals a gap in current patient education efforts. Healthcare providers should prioritize the provision of detailed, easy-to-understand information and tools to help patients cope with their health challenges after treatment.

When looking for solutions to improve the quality of life and health outcomes for cancer survivors, patients' suggestions should be taken into account.

Regular follow-up visits, access to clear care instructions, and educational materials are also important aspects of effective post-treatment care. These findings pave the way for the creation of strategies to improve doctor-patient communication and support systems. These, in turn, can help manage long-term side effects and increase patient satisfaction.

Research implications

The outcomes of this research on the interaction between doctors and patients regarding the handling of lasting side effects of cancer hold implications for medical practice, healthcare policies, patient education, and future studies. Implementing the suggestions made in this study and filling the identified gaps could lead to improvements in the quality of care and the overall well-being of cancer survivors.

Enhanced communication training for healthcare providers

There is an urgent need for better communication between healthcare providers and patients, as highlighted by this study. Tailored training programs to improve communication skills should be developed and incorporated into healthcare training. These initiatives should emphasize the importance of compassionate and patient-centered communication, especially when discussing the long-term adverse effects of cancer treatments.

Routine follow-up appointments

It is recommended that follow-up appointments focus on addressing the long-term effects of cancer treatments. These meetings can be instrumental in allowing healthcare providers to monitor patients' health status, promptly address emerging problems, and provide education and support. This proactive approach can help detect and manage adverse events, thereby improving patient outcomes.

Multidisciplinary care teams

By bringing together a diverse group of experts in cancer care, including oncologists, primary care physicians, nurses, psychologists, and other specialized health professionals, we can ensure that cancer survivors receive comprehensive support for any long-term effects they may experience. This collaborative approach promotes teamwork and consistency in treatment, addressing not only the physical but also the emotional needs of patients.

Healthcare policy

It is essential for policymakers to create and enforce guidelines and standards focused on the care and management of cancer survivors. These guidelines should emphasize regular check-ups, patient education initiatives, and access to support services.

Funding must be appropriately allocated to support programs that meet the needs of cancer survivors. This includes developing resources for healthcare provider training and establishing specialized survivorship clinics. By investing in these areas, we can raise the level of care provided to survivors while reducing the strain on our healthcare system over time.

Policymakers should also promote the integration of technology into survivorship care by supporting tools such as telemedicine platforms, electronic health record systems, and patient portals. These technological advances can facilitate improved communication between healthcare teams, increase patients' access to services, and provide support throughout their recovery journey.

Patient education

There is an urgent need to create informative educational materials that provide an in-depth understanding of the long-lasting negative effects of cancer treatments. These resources should be easily accessible in formats such as print, online, and video to cater to the diverse preferences and literacy levels of patients.

Patient empowerment and self-management

Educational efforts should aim to empower patients to participate in their own healthcare. Equipping patients with the knowledge and resources to monitor their well-being, identify symptoms early, and seek prompt medical attention can significantly improve their quality of life and overall health outcomes. Initiatives such as workshops, support groups, and online platforms can promote patient empowerment and encourage self-management.

Targeted support

Educational initiatives need to be tailored to meet the needs of different patient groups, considering factors such as cancer type, disease stage, and demographic characteristics. It is essential to prioritize tailored support for populations that may face additional barriers in accessing health information and services.

Future research

Longitudinal studies

Future research efforts should include longitudinal follow-up studies of cancer survivors over an extended period to gain a deeper understanding of the prolonged impact of adverse effects and the effectiveness of various interventions. Such studies are promising for providing information on the evolution of health problems after treatment and assessing the outcomes of different management approaches.

Intervention studies

It is essential that research focuses on creating and testing interventions that aim to improve the interaction between clinicians and patients, as well as managing long-term side effects. By using randomized controlled trials and other sound research methodologies, effective strategies and best practices for survivorship care can be identified.

Patient-centered outcomes

Future research efforts should prioritize patient-centered outcomes by deepening insights into the experiences and encounters of cancer survivors. Understanding the needs, preferences, and barriers patients face can pave the way for effective and personalized approaches to care.

Technology and innovation

Research efforts should explore how technology and innovative solutions can improve survivorship care. This involves investigating the effectiveness of interventions, mobile health apps and digital platforms in improving communication, education and support for cancer survivors.

Raising awareness

Initiatives should be taken to raise awareness of the importance of managing the long-term adverse effects of cancer treatments. Public health campaigns, media awareness programs, and community engagement activities can help educate the public while reducing the stigma associated with surviving cancer.

Advocacy and support

Advocacy groups and patient-focused organizations play an important role in supporting cancer survivors and promoting policy change. Working collaboratively with these entities can amplify the impact of research findings and lead to significant improvements in cancer care.

By focusing on the areas identified in this research and implementing the suggestions, health professionals, policymakers, and researchers can work together to improve the care and support for cancer survivors. This comprehensive strategy could lead to the effective management of long-lasting side effects, improved quality of life, and favorable health outcomes for people coping with the lasting effects of cancer and its therapies.

Discussion

The results of this study provide insight into how doctors and patients communicate about the lasting negative effects of cancer and its treatments. The findings reveal gaps in communication between healthcare providers and cancer patients regarding these effects. Many patients reported that they did not receive information about potential long-term effects, and even when they did, the information was often unclear. In addition, many patients experienced health problems after treatment, highlighting the need for more guidance and support in managing these effects.

A key finding was the communication gap between doctors and patients. Less than half of participants said they had been informed about the lasting effects of their treatments, with many considering the information provided unclear. These findings echo research highlighting the difficulties in effective communication in cancer care (Epstein & Street, 2007; Jansen et al., 2010).

Inadequate and fragmented communication can have negative consequences, such as patients not feeling ready to take charge of their health after treatment, increased levels of anxiety, and a higher risk of experiencing unaddressed side effects.

The importance of healthcare providers using communication methods to ensure that patients fully understand the potential long-term effects of their treatments is emphasized. One study found that a large number of cancer survivors experience psychological challenges after treatment, with more than half reporting such problems. This is consistent with existing research highlighting the consequences of cancer survivorship (Mitchell et al., 2013). The emotional and psychological impact of cancer and its treatment is profound and significantly affects patients' quality of life.

Health professionals need to recognize these challenges and incorporate mental health support into survivorship care plans. Conducting mental health assessments, providing counseling services, and facilitating support groups can effectively address these needs. It is essential to create an environment where patients feel comfortable sharing their emotional difficulties.

A considerable percentage of respondents (73%) sought information and guidance from support organizations or online platforms. This high rate highlights the role these resources play in supporting and educating patients. Online forums, in particular, were praised for providing support and sharing valuable information, despite concerns about misinformation.

The emergence of support communities represents a significant opportunity to enhance patient care, but it also requires measures to ensure the accuracy and reliability of the information shared. Health professionals should consider working with these groups to produce and distribute high-quality, evidence-based materials that patients can easily access. Providing patients with a selection of verified sources and supportive communities can help reduce the spread of misinformation.

The expressed need for guidance on long-term health risk management (90%) highlights a significant gap in current survivorship care. Patients want thorough education on what to anticipate after treatment and how to manage potential side effects. This need reflects changes in cancer care that advocate for a more comprehensive and patient-centered approach to survivorship (Jacobs & Shulman, 2017).

Healthcare providers should create survivorship care strategies that provide detailed information about possible long-term consequences, recommend treatment follow-up, lifestyle adaptations, and support resources. These strategies should be tailored to meet the needs of each patient, taking into account factors such as cancer type and stage, treatment methods, and individual health conditions.

Participants shared ideas on how healthcare providers can improve support and information sharing for cancer survivors. Suggestions included follow-up meetings focused on long-term outcomes, access to counseling or therapy, and the availability of more printed materials and workshops. These recommendations are consistent with established practices in survivorship care and should be incorporated into standard care procedures.

Establishing regular meetings to address and manage long-term effects can contribute to early detection and intervention, ultimately leading to better patient outcomes. These meetings should cover both the physical and psychological aspects of survivorship.

Providing patients access to counseling and psychological support can help them cope with the challenges of surviving cancer. Involving health professionals as part of the cancer care team can ensure that patients receive comprehensive support.

Creating clear and comprehensive educational resources can improve awareness and preparedness. Workshops and information sessions provide learning opportunities that allow patients to ask questions and interact directly with healthcare providers.

The study findings highlight areas for future exploration. Longitudinal studies that follow cancer survivors over time may provide deeper insight into the progression of long-term adverse effects and the effectiveness of different management approaches. Intervention studies testing communication and support strategies can help identify best practices for improving survivorship care.

Exploring the role of technology and innovative solutions such as telemedicine in improving communication and support for cancer survivors is essential. Integrating these tools into survivorship care can help fill gaps and improve patient outcomes. Effective doctor-patient communication plays an important role in managing the long-term effects of cancer treatments. Improving communication gaps and providing support can greatly enhance the quality of life and health outcomes for survivors. By following the recommendations in this study and utilizing its insights, healthcare providers can improve survivorship care to better meet the needs of their patients.

Strengths and Limitations

Strengths

The research involved a mix of participants from different age groups, cancer types, and stages at diagnosis. This diversity broadens the scope of the study by providing a comprehensive perspective on the challenges faced by different groups within the cancer survivor community.

Information was collected from four Facebook support communities, ensuring a wide range of views and experiences. This method helps to capture the diversity of patient encounters and the impact of different support systems.

By delving deeper into the perspectives and experiences of cancer survivors, the study enables an understanding of the practical challenges patients face. This patient-centered approach ensures that the results and suggestions are relevant and directly beneficial for improving well-being.

The use of a questionnaire facilitated in-depth data collection on issues such as awareness of doctor-patient communication, long-term effects, and the use of support services. This meticulous data collection allows for an examination of critical issues and barriers.

Limitations

The research involved volunteers from Facebook support groups, which could lead to selection bias. Those who choose to join the study might be more proactive or have a specific interest in the topic, which could influence the results.

The use of online platforms for data collection means that the study mainly includes people who are active internet users and part of online support communities. This could exclude a number of cancer survivors who are not active on these platforms, limiting the representativeness of the results.

The study focuses specifically on cancer patients in Romania, which could limit the applicability of the results to other countries or cultural contexts. Variations in healthcare systems, communication methods, and patient experiences in different regions may significantly impact the relevance of the findings.

There is no exploration of differences between urban and rural cancer patients in Romania. Rural patients may face unique challenges compared to those living in urban areas, which are not fully captured in this study.

The research is based on self-reported information, which may be influenced by response bias. Participants may underestimate or overestimate their awareness, experiences, and understanding of the information received due to factors such as recall bias or social desirability bias.

Participants' feelings and mental state when answering the questionnaire could influence how they respond. Patients experiencing stress or anxiety might provide different answers compared to those who feel more emotionally stable.

The study design captures data at one point in time, making it difficult to track changes and trends over time. To understand how patients' communication practices and awareness evolve during the survivorship journey, longitudinal studies are needed.

Outcomes represent the views and experiences of participants at the time of the study. Changes in healthcare approaches, new treatments, or additional support services could affect the relevance and applicability of these findings over time.

While the study sheds light on the communication challenges cancer survivors face in managing long-term side effects, it is important to recognize its limitations. Addressing these research shortcomings may provide deeper insights into these issues and lead to better strategies for improving cancer survivor care. Despite its limitations, the study's strengths in identifying areas for improvement and providing suggestions make it a valuable contribution to the field of cancer care post-treatment.

Conclusions

The research provides insight into the challenges and experiences encountered by cancer survivors. It highlights gaps in communication between healthcare providers and patients, the emergence of emotional and psychological problems after treatment, and the need for comprehensive information and support.

Overall, this study highlights areas where communication and management of the long-term side effects of cancer treatments can be improved. By closing communication gaps, improving education, and providing robust support services, healthcare providers can enhance the well-being and health outcomes of cancer survivors. Recommendations from this research provide a guide for creating effective survivorship care strategies that can lead to improved patient care.

In addition, the findings emphasize the importance of research and innovation in survivorship care. By investing in long-term studies, intervention research, and the development of educational tools, health professionals can address the ongoing needs of cancer survivors. Collaborative efforts involving healthcare providers, policymakers, researchers, and patient advocacy groups are essential to creating an environment that meets the needs of cancer survivors as they navigate life after treatment.

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