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CONTINUING EDUCATION

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Online Social Support Received by Patients With Cancer

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Patient education in the public healthcare system does not necessarily meet the needs of patients with cancer. Because of this, they may turn to the Internet, or they are guided to electronic sources of social support. The purposes of this study were to describe what kind of social support patients with cancer receive from the Internet and its meaning for them. The data were collected using an online survey that consisted of open-ended questions based on a theory of online social support. The data were analyzed using an inductive content analysis. Online social support consisted of three categories: disease-related information from reliable sources, supportive interaction enhancing positive emotions, and practical tips for daily life with cancer. Three major categories related to the meaning of online social support were identified: peers helping make life easier, empowerment, and inadequate support. The findings can be utilized in tailoring educational interventions for patients with cancer. In the future, the long-lasting effects of online social support need to be examined.

KEY WORDS

Cancer • Internet • Social support

The Internet has made it possible to gain almost unlimited health and illness-related information. Today, 86% of Finns are Internet users.[1] Of Finns, 72% access the Web daily or almost daily.[1] Internet users tend to have higher incomes and education,[2] and they may write better than do those with less education, and their messages often contain references to employment and occupation in addition to their disease.[3] Many patients with cancer use the Internet to seek information and emotional support. Nearly half of patients with cancer (42%) search for medical information and nearly as many search for emotional support.[4]

The Internet offers different kinds of support for patients with cancer. Earlier studies indicate that patients with cancer use the Internet to search for information on the disease. Patients with cancer often look for information about treatments, treatment options, and coping with adverse effects. They may also utilize the Internet to seek a second opinion or validate the physician's instructions.[4–9] Disease- and treatment-related information is needed the most after diagnosis and during treatments.[10] In addition to disease-related information, emotional support is very important for patients with cancer. They may search for and provide emotional support to other patients on the Internet.[11,12] Reading about the experiences of other patients with cancer can help individuals to cope more effectively and help reduce uncertainty and anxiety.[4,6,11,13,14] Telling their story on the Internet can help break the isolation that patients may experience after a cancer diagnosis. Internet support communities can empower patients with cancer and play a major role in their well-being and rehabilitation.[15] Empowerment may be described as a feeling that one is better informed and as providing greater social wellness.[16]

Expertise developed through the Internet in terms of familiarity with a body of medical and experimental knowledge about the illness enables a new kind of social fitness for patients with cancer.[5,17] Practical advice offered by others may help a patient with cancer to cope with different problems caused by the disease and its treatment. Providing advice on how to communicate with healthcare professionals may be a rewarding role for the support provider.[4,7]

Currently, there have been only a handful of studies (eg, Klemm,[8] Ziebland et al[5]) that have examined cancer patients' needs or experiences online using a qualitative approach. These studies have focused either on a limited

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topic or on a limited cancer patient group, usually breast cancer patients. From this point of view, the purposes of the present study were to describe what kind of social support cancer patients receive from the Internet and what the meaning of this social support is to them.

THEORETICAL BASIS

The theoretical framework of the present online survey was the online social support theory developed by LaCoursiere.[18] In this theory, online social support is defined as the cognitive, perceptual, and transactional processes that help to achieve beneficial outcomes in healthcare status, perceived health, or psychosocial processing ability. The theory of online social support consists of four sections, of which two are used as a basis for the present online survey, namely, mediating factors and the outcomes of online social support. Mediating factors are divided into four categories, two of which are relevant to the present study and used as background questions (eg, health factors, demographic factors). An open-ended question was used to garner information about participants' perception of their health. Two kinds of outcomes were identified in LaCoursiere's theory: quantitative and qualitative outcomes. Quantitative outcomes occur on the perceptual level of online social support as a result of support mediation and on the cognitive level as a result of information processing, and both are testable outcomes.[18] In the present study, the qualitative outcomes were of interest. The qualitative outcomes of online social support occur as a result of evaluative functions of online social support. Based on the theory, evaluation questions would focus on contextual processes of communication and experience.[18] Therefore, the outcomes of online social support as presented in this study were examined using two research questions: what kind of social support patients with cancer received from the Internet and what the meaning of social support was to them.

METHODS

Setting and Sampling

The participants of the present study were at least 18 years old, diagnosed with cancer and who visited and/or participated in the Internet discussion forums of the Cancer Society of Finland. This organization was selected as the study partner because it is one of the largest nonprofit public health organizations in Finland and has about 140 000 members. Four discussion forums were selected for inclusion in the study by a representative of the Cancer Society. These included the following: (1) a forum for patients with cancer who live on life-support medication. In this group, patients with cancer and their relatives may reflect, for example, on issues related to treatments and what it is like to live with a chronic disease; (2) a general cancer forum that provided discussions about cancer-related issues; (3) a forum for women's cancers; and (4) a forum for men's cancers. The women's and men's forums provided a venue for gender-specific issues facing individuals with cancer.

Although the discussion forums of the Cancer Society of Finland were places from which participants were recruited, the focus of the study is on the views of patients with cancer in general who are using the Internet. Therefore, responses of the participants may include the general Internet, discussion forums, Facebook or Twitter, or other cancer-related Web pages (eg, home pages of cancer patients). These responses are not distinguished in this study and the word "Internet" is used as an umbrella concept. The discussion forums of the Cancer Society of Finland are public media, and they are monitored by the administrator of the Cancer Society to avoid inappropriate, obscene, or hurtful messages, but they do not have a professional facilitator. The online survey was placed as a link on these four discussion forums in order to obtain as heterogeneous data as possible. Registered users who visited and/or participated in these four discussion forums were eligible to participate in the study.

Data Collection

Because there were no existing questionnaires for LaCoursiere's theory of online social support, an online survey was developed for this study by the researchers according to the suggestions of the theory developer.[18] The online survey was pilot tested with volunteer patients with cancer to confirm the feasibility of the questions. On the basis of the pilot testing, no changes were made.

The data were collected in May 2010. Patients with cancer who visited the discussion forums and opened the Internet link to the study information had the opportunity to complete the form and submit it by clicking "save." To check the number of the participants and the content of the responses, the data were reviewed daily in order to provide ongoing analyses of the data until saturation was reached[19] Sixty-four of 74 responses (86%) were received during the first week. No responses were achieved during the last data collection week. After 21 days, the researchers decided to discontinue the data collection because no new information, concepts, or aspects were obtained, and redundancy was achieved.[20]

Data Analysis

The open-ended questions were analyzed manually using an inductive content analysis.[20,21] The open-ended questions were as follows: (1) "what kind of support have you received through the Internet?" and (2) "what is the meaning of online support to you?" Because the data were already in written form, no transcription was needed. In the preparation phase of the inductive content analysis process,[22] the unit of analysis was selected. The unit of analysis consisted of either one word or an entire expression (n = 393). In the organizing phase,[22] the data were read several times. Guided by the research questions, patterns were identified (open coding). After repeated reading, the patterns found in open coding were grouped into major categories with subcategories according to their similarities or dissimilarities. The contents of the categories and subcategories were compared with each other in order to ensure they belong to a particular group and in order to provide a means of describing the phenomenon under study.[22] When organizing the data, the original expressions of the participants were used to keep the analysis as rich and evidentiary as possible.[20,23] The categories and subcategories were identified with words that characterized the content and were reviewed several times before consensus was achieved among the researchers. The responses regarding mediating factors were quantified using descriptive statistics.

Ethical Considerations

The ethical principles of research were followed to protect the participants' rights: autonomy, privacy, anonymity, confidentiality, and nonmaleficence.[21,23] The participants of this study were able to voluntarily choose whether to participate or not. The Internet link in the four online discussion forums providing information about the survey and the form was open to registered visitors with cancer. They could, at any time, discontinue completion of the form without penalty. Everyone who was interested in the study and met the inclusion criteria was eligible to participate. Because of the nature of the online survey, the return of the responses electronically to the researchers was considered an informed consent. During the data collection and analysis, privacy and anonymity were ensured by storing the data electronically behind a username and a password. The data were collected so that it was impossible to track the e-mail addresses or other identifying information of the participants. The research permit was obtained from the Cancer Society of Finland, and the research proposal was approved by the Scientific Further Education Board at the University of Tampere, Finland.

RESULTS

Participants

Sixty-four women (87%) and 10 men (13%) participated in the study. Thirty participants (41%) were 51 to 60 years of age. Nearly one-fourth (24%) had a university degree. The majority of the households (84%, n = 62) consisted of one to three persons in addition to the participant. In the responses to the open-ended question on perceived health, the participants responded that their current health was either good (n = 54, 73%), moderate (n = 13, 18%), or poor (n = 7, 9%) (Table 1).

The most common cancer was breast cancer (42%). The majority of the cancers (n = 67, 91%) had been diagnosed between 2004 and 2010.

The Social Support Received From the Internet

The first open-ended question that participants were asked to answer focused on the kind of social support they received from the Internet. Three major categories were identified from the responses: disease-related information from reliable sources, supportive interaction enhancing positive emotions, and practical tips for daily life with cancer. In addition, 14 subcategories of social support were gleaned from the data (Table 2).

The category of disease-related information from reliable sources included information about experiencing the disease, treatments, and treatment options, as well as information from reliable sources and communication with professionals. The participants wanted "information on experiences of the disease" itself that was specific to the type of cancer they had. Information related to the disease

Table 1

Participant Characteristics (n = 74)

		n (%)
Gender	Female	64 (87)
	Male	10 (13)
Age	≤40	6 (8)
	41–50	21 (28)
	51–60	30 (41)
	61–70	16 (22)
	≥71	1 (1)
Education	University	18 (24)
	Polytechnic or college	29 (39)
	Vocational	25 (34)
	No education	2 (3)
No. additional people living in the same household	0	7 (10)
	1	31 (42)
	2	17 (23)
	3	14 (19)
	4	3 (4)
	5	1 (1)
	6	0 (0)
	7	1 (1)
Perceived health	Good	54 (73)
	Moderate	13 (18)
	Poor	7 (9)

Table 2

The Social Support Received From the Internet

Subcategory	Category	
Information on experiences of the disease	Disease related information from reliable sources	Social support received from the Internet
Information about treatments and treatment options		
Information from reliable sources		
Communication with a professional		
Peerness	Supportive interaction enhancing positive emotions	
Interaction with peers		
Inner strengthening		
Channel for releasing pressure and stress		
A place for entertainment		
Spiritual experiences		
Advice and instructions on searching for information	Practical tips for daily life with cancer	
Advice on problems caused by the disease		
Advice on coping with the disease treatment		
Instructions on personal rights		

included the diagnosis and medical tests. The participants also searched for information related to the progression of the disease, adverse effects, and life expectancy. Some participants reported that they looked for information without defining what specific information they needed. Information on being ill was considered important. Some participants stated, for example, "basic information on the disease, the diagnosis, lab tests."

"Information on treatments and treatment options" was focused on treatment methods, treatment options, and adverse effects of treatments. Many participants reported that information on adverse effects was useful. When patients know that a specific symptom occurs in others, they may realize that it is part of the disease in a way. "Information from reliable sources" included research findings and facts provided by other cancer patients and cancer-related information from the Web sites of the Cancer Society and hospitals, as well as from international sources, for example, "the latest articles and research results easily from the Internet" and "expert information."

"Communication with professionals" consisted of communication with the oncology nurse at the hospital. The participants had communicated with an oncology nurse, but they considered the threshold to initiate contact to be high. Supportive interaction enhancing positive emotions consisted of "peerness" and interaction with peers. Patients reported that supportive interaction helped them find their inner strength. The Internet also functioned as a channel for releasing pressure and as a place for entertainment, both of which were reported as part of the supportive interaction, as well as spiritual experiences. "Peerness" consisted of peer support and peer friends. Participants sought peer support from patients who had gone through the same experiences. The participants looked for peer support to help with issues associated with their disease. They mentioned face-to-face meetings, finding someone to talk to, exchange of opinions, and reading about peer experiences as forms of "interaction with peers." Participants sometimes arranged face-to-face meetings, and some had found understanding and long-term friends with whom to talk. The participants referred to reading the online messages of others and commenting on them as an exchange of opinions. Participants also reported that reading about the experiences of their peers was helpful. For example, one participant wrote that "Of course, it was also helpful to read about the experiences of companions in misfortune."

"Inner strengthening" was described as the feeling of not being alone with the disease. The encouragement, support, and consolation received from the Internet and hope and faith in recovery and becoming cured and caring were factors that increased inner strengthening. For example, "I have realized that you can actually survive this disease like any other."

As part of supportive interaction, the participants noted that the Internet functioned as "a channel for releasing pressure." They reported that they could even argue with peers on the Internet without worrying about it. One participant wrote that "Possibility to argue without worrying about it too much, about XXXX's health care reform/European healthcare."

This activity helped release their emotional pain, and in this way they were able to avoid burdening their families too much. When the participants did not want to think about the disease and wanted to be cheered up, the Internet functioned as "a place for entertainment." Spiritual experiences on the Internet in the form of spiritual help, such as prayers, were also mentioned as helpful.

Practical tips for daily life with cancer consisted of many kinds of instructions and advice. This included searching for information, problems caused by the disease, treatment of the disease, and personal rights. The participants received "advice on searching for information" from their peers. Information provided by peers helped many patients with cancer enhance their knowledge related to their disease. The participants also received guidance from their family and professionals when searching for information about their cancer. For instance, a doctor explained that it is useless to read research studies more than 5 years old. The participants discovered “advice on problems caused by their disease” from the Internet. The participants found advice from the Internet that they had not received from the hospital’s cancer clinic. In addition, participants found advice for difficult situations and answers to questions that they had not even come to think about. “Advice on coping with the disease treatment” was related to coping with the adverse effects of the treatments and cytotoxic treatments. For instance, one patient with cancer had received good advice from another patient with cancer on wearing frozen gloves during a docetaxel infusion in order to avoid nail damage, and this way the patient was able to receive the treatment. A patient with cancer reported that:

> I have gotten tips on, for example, coping with the adverse effects of treatments; using frozen gloves during Taxotere infusions has made these treatments possible, as the treatment had to be stopped the last time because of severe nail damage.

“Advice on personal rights” was also accessed from the Internet. Some participants received advice to ask for their personal patient documentation in writing from their healthcare professional. Advice and instructions were also related to social security and the compensability of drugs.

The Meaning of Online Social Support

The second open-ended question that participants were asked to answer was “What is the meaning of online support to you?” Three major categories were identified from the data: peers helping make life easier, empowerment, and inadequate support. In addition, 10 subcategories were derived from the data (Table 3).

The category of peers making life easier consisted of the peer community, peers helping to carry the load, becoming understood, and the possibility of interaction. The “peer community” was strengthened by the fact that others were in the same situation. Patients with cancer were not alone, but there were others who had gone through the same initial shock and the same experiences in general. The peer community was also strengthened by identification with others. The virtual peers were seen as an important support network in addition to the participants’ own family. The participants wrote that the Internet increased the amount of support they received in general, and some participants were even dependent on it. Support was reported to be invaluable especially in the early phase of the disease and during the treatments. Some participants wrote that:

> I’m definitely not alone, but others who have gone through the same initial shock have the same kind of experiences.
>
> I always have a friend there.

The peers also affected the lives of the respondents by helping to “share the load.” Peer messages were often read on a daily basis, and the participants stated that the fellow patients were on their side. One participant wrote that

> The importance has been big because I haven’t had to burden my close relatives all the time. I recommend the Internet for sharing your journey with the disease, although it should not be your only companion.

The Internet also functioned as a channel for releasing anxiety. The subcategory of “becoming understood” was described as the way that the experiences of others helped to understand one’s own situation, and the participants wrote that only people who have gone through the same can best understand what it is like to have cancer. Through the Internet, there was “a possibility for interaction.” For many, the people on the Internet were discussion partners in solitude. The participants often wrote that the Internet was their connection to the rest of the world. For example, “Great importance. I would be isolated without the Internet.”

Empowerment was seen in strengthening and knowledge, as well as in independence. “Strengthening” was described as the way that support from the Internet gave strength. Hope of survival was seen as a paramount issue,

Table 3

The Meaning of Online Social Support

Subcategory	Category	
Peer community	Peers helping make life easier	The meaning of online social support
Peers sharing the load		
Becoming understood		
Possibility of interaction		
Strengthening	Empowerment	
Knowledge		
Independence		
Support was not received	Inadequate support	
Limited support		
The support has negative effects		

and the participants looked for this kind of hope from persons who had experienced the same and who seemed to understand them the best. Hope was particularly important when the participant received the information that he/she might only survive a few months with cancer. The social support received from the Internet was also seen in how faith in recovery was strengthened. Coping in everyday life was influenced by the support received from the Internet so that it improved the participant's mood and cheered him/her up. Some participants mentioned that they started to feel better when they discovered that things could be even worse. One participant wrote that:

> Also the point that you have to be realistic about your situation. I have lost some of my companions in misfortune, but you shouldn't fall into despair.

Empowerment was also seen in the "knowledge" of the participants. The Internet provided information to the participants that they did not receive from the hospital staff. Information about the disease was seen as important by the participants and helped them to tolerate the adverse effects of the treatments better. The participants were able to compare their own knowledge with information from the Internet and increase their own understanding. For example:

> Before visits to the doctor, I have often prepared by looking for basic information on issues that are currently relevant. Or I will increase my understanding after a visit to the doctor, and so on.

The support received from the Internet increased empowerment through "independency" and increased the choices available to the participants. The fact that information from the Internet was easy to get increased the independency of the participants because there were no time restrictions, and making appointments was not needed. The participants were able to access the Internet when needed. Anonymity enabled the free expression of emotions regarding how it felt to be a cancer patient, and the contact threshold to reach for support from the Internet was low.

Sometimes, online support was inadequate. In these cases, the participant received no support at all, or the support was considered limited or thought to be negative in nature. Some participants had not received support from the Internet, reporting that they had written comments to the forums, but nobody had answered them. They thought that this was due to them having an easier experience with cancer. Some participants reported that they had tried to find online support, but had not been able to find peers or could find only a few of them. Some participants reported that they had not received support because they had not looked for it. Other participants noted that "support from the Internet was limited." Some participants also mentioned that the support received from the Internet had a "negative effect." When the support was negative in nature, it led to anxiety and caused the participant to think about the disease all the time and left the participant alone with the disease causing distress. For example, one participant stated that

> Especially in the beginning, for example, discussion forums were even distressing, and I often felt that they were more trouble than they were worth.

DISCUSSION

The current study aimed to address questions about what kind of social support patients with cancer received from the Internet and the meaning of this support to them. In studies related to patients with cancer and the Internet, the participants are usually well educated, predominantly female patients with cancer, and middle-aged,[4,5,24,25] as was the case in this study.

The Social Support Received From the Internet

The social support received from the Internet consisted of disease-related information from reliable sources, supportive interaction enhancing positive emotions, and practical tips for daily life with cancer.

Patients with cancer search for reliable information related to their illness and experiences of it. In Rimer et al,[4] the participants (N = 293) used mailing lists to obtain information on how to deal with cancer, to gain support, to learn about other patients' experiences, and to help others. In this regard, the results of this study are similar. In a qualitative study by Ziebland et al[5] (N = 175) on how men and women talk using the Internet, the results are also similar to our results. In that study, participants used the Internet to seek support and experiential information. The category of information from "reliable sources" identified in the current study was reported by others. For example, in a qualitative study by Clarke et al,[26] both male and female cancer patients considered staff to be a preferable information source, which was also mentioned in our study as a reliable source of information.

The present study differs from the study mentioned previously and from the study of James et al[27] in one aspect. They examined cancer patients' (N = 800) and carers' (N = 200) use of, and attitudes to, the Internet as an information source compared with other media. Hospitals, doctors, and leaflets, which may be considered reliable sources of information, as well as family, were mentioned as primary information sources. In the current study, the participants also considered official or scientific sources of information to be reliable. However, family members were not mentioned in our study as a reliable source of information at all. Healthcare professionals and especially physicians as a source of information were valued by participants in our study.

Patients with cancer find a wide range of support from the Internet. For patients with cancer, sharing experiences with peers and access to experimental information were highly valued. Participants in the qualitative study by Rozmovits and Ziebland,[10] which included prostate and breast cancer patients (N = 28), stated that experiences of people in a similar situation were both informative and reassuring. Communicating with others with a similar condition was a reason for every fifth cancer patient (N = 293) to use the Internet in a study by Rimer et al.[4] These findings are in line with the present study. In contrast to previous studies, we did not find any expressions that would be described in terms of cancer awareness. For example, Ginossar[28] found the category of politics and advocacy in her study that examined 1432 e-mail messages posted in two online cancer communities (lung cancer and chronic lymphocytic leukemia).

In addition to the information and support, cancer patients value practical tips for daily life with cancer. In their quantitative substudy with 41 respondents, LaCoursiere et al[11] reported the phenomenon of patients receiving instructions from peers on finding information. In their qualitative online forum study (N = 16, 81% women) exploring patients' attitudes toward Internet cancer support groups using a feminist perspective, Im et al.[12] have noted that patients look for advice on the Internet on different problems caused by their disease. Instructions related to the treatment of the disease, such as coping with adverse effects of treatments, were reported as an important issue in Rimer et al.[4] Advice on personal rights, such as social security and the compensability of drugs, was part of practical support. These studies reflect the findings in the present study. Other researchers have stressed the importance of financial advice.[28,29] In this study, financial issues were mentioned in terms of compensations of drugs, but they were not related to income issues. This may be due to the fact that all people living in Finland are included within the scope of health insurance. This is paid as sickness benefit, reimbursements for medicines, travel expenses when receiving treatment, private healthcare costs, private dental care costs, reimbursements for examinations, and treatment prescribed by physicians.[30]

Meaning of Online Social Support

Social support received from the Internet manifested itself in the way that peers helped to make life easier, in empowerment, and as inadequate support.

People who had gone through the same experiences, who were the same age, and who had had the same treatments were highly valued in the present study and in the study by Rozmovits and Ziebland.[10] Im et al[12] reported that cancer patients valued being members in a group and appreciated meaningful interaction with others, especially if they had difficulties interacting with their families or friends because of the illness. A qualitative study by Broom[31] explored how Australian patients with prostate cancer perceive and experience online support groups. Online groups were seen as useful because one could share feelings of weakness and vulnerability on the Internet and avoid straining the next of kin, as was found in the present study. In her article based on data from three related studies using a qualitative approach, Josefson[32] concluded that patients' online communities provide not only medical facts but human understanding as well. The expressions of understanding one's own situation and being understood were also found in the current study.

One aspect of social support received from Internet was empowerment. Radin[3] found themes related to strengthening through which cancer patients became empowered. These are in line with the findings in this study. For example, supportive messages in time of stress, good wishes, and prayers were exchanged. A phenomenological study by Dickerson et al,[6] which aimed to describe experiences of cancer patients (N = 20, all women) using the Internet for information and support to manage the self-care aspects of illness and treatment, including symptom management, also showed that the empowering of patients as partners in decision making was shown to enhance their coping with the disease. The issue of being informed was mentioned in the current study as well. Independency as a part of empowerment has not been noted in earlier studies. In the current study, it was reported in terms of freedom to choose between an online support person or to have a support person from the cancer society, having no time restrictions (to get the information when needed), and freedom to express feelings.

Sometimes, online social support was inadequate. Fogel et al[33] also reported that those using the Internet for breast health issues did not benefit from tangible social support. In our study, inadequate support was also related to the negative side of social support in addition to tangible support.

Limitations of the Study

In the current study, "Internet" was used as an umbrella concept. Therefore, it was not possible to confirm where exactly the patients with cancer received online social support (eg, support groups, educational sites, and cancer-related sites). This study utilized the theory of online social support espoused by LaCoursiere[18] to guide the data collection. To our knowledge, this theory has not been used in other research as a framework for evaluating online support for cancer patients. However, the developer of the theory provided some suggestions about how the theory can be implemented in future research.[18] This may have been a limitation of the present study, but the researchers hope to contribute to building an awareness of the potential value of online social support, an aim supported by LaCoursiere.[18]

The sample selection was a convenience in nature and chosen by a representative of the Cancer Society of Finland. Only those visitors who had access to the four selected discussion forums were included. Another limitation of the present study was a lack of diversity among the participants, particularly regarding gender. The participants were predominantly women. Although the Internet link to the study was placed on four different discussion forums, male patients with cancer were less likely to participate. Also the fact that the majority of cancer types were women's cancers may limit the transferability of the findings. Further investigations in a more heterogeneous sample of patients with cancer will provide a better understanding of online social support. In this study, a member check was not used because of the nature of the online survey. The researchers did not have the e-mail addresses of the participants. This may have weakened the credibility of the study.

CONCLUSION

The findings in this study suggest that patients with cancer, especially female patients with cancer, are turning to the Internet to receive information from reliable sources and support as well as practical tips for daily life with cancer. In nursing, it is essential to be aware of those information sources patients with cancer use in order to guide them to reliable Web sites.

It is very important that healthcare personnel treating patients with cancer identify different needs for support. It is also important to identify patients who do not look for support on the Internet and who might need another kind of support mechanism (eg, face-to-face support, individual counseling). The key question to consider, however, will be how persons not using the Internet will receive social support in the future because the delivery of support is shifting toward the Internet.

Implications for Practice and Research

The major categories identified in this study can be utilized as a structure or framework when tailoring educational and supportive interventions for patients with cancer either face-to-face or electronically.

Because earlier studies examining the experiences of online support of patients with cancer are mainly cross-sectional, the long-lasting effects of online support need to be examined in the future, for example, by using the identified categories.

In the present study, the theory of online social support was used; however, only two sections of the theory were utilized, namely, mediating factors and qualitative outcomes. Therefore, in the future research, it is important to use also other sections of the theory (eg, the process of online social support) in order to understand through which mechanisms individuals with cancer achieve beneficial outcomes and not only the outcomes of online social support.

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