



## THE CORRELATION BETWEEN DIFFERENT DIMENSIONS OF LONELINESS AND THE USE OF SOCIAL MEDIA IN CANCER PATIENTS

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### ARTICLE INFO

**Received:**

03<sup>th</sup> Jun 2017

**Accepted:**

29<sup>th</sup> Nov 2017

**Available online:**

14<sup>th</sup> Dec 2017

**Keywords:** social media, loneliness, cancer, patient.

### ABSTRACT

**Objective:** Individuals who have experienced loneliness get involved in many problems such as failing to establish and maintain close relationships, engaging in social activities, participating in groups and controlling their state of affairs. Cancer patients feel lonelier than the others; this can affect their treatment process, so evaluation and treatment of this disorder is important. Lonely people are more likely to be drawn online as a way to modulate negative moods associated with loneliness.

**Methods:** To determine the association between loneliness and tendency to use social media in cancer patients, we evaluate 316 cancer patients. The instrument used to measure loneliness was the social and emotional loneliness scale for adults (SELSA-S). Data were analyzed using correlation test running SPSS soft-ware.

**Result:** the results revealed a significant positive correlation between the use of social media and total loneliness ( $r=0.73$ ,  $p < 0.001$ ); use of social media and familial loneliness ( $r=0.65$ ,  $p < 0.001$ ); use of social media and romantic loneliness ( $r=0.14$ ,  $p > 0.05$ ); and use of social media and social loneliness ( $r=0.48$ ,  $p < 0.001$ )

**Conclusion** The results showed that patients who are socially lonely and suffer familial loneliness were more likely to use the social media for support than others.

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**To Cite This Article:** Leila Hamid Reza Farpour<sup>1</sup>, Ebrahim Moghimi sarani, (2017), "The correlation between Different Dimensions of Loneliness and the Use of Social Media in Cancer Patients", *Pharmacophore*, **8(6S)**, e-1173193.

### Introduction

Cancer is a disease in which normal cells lose their ability to divide and grow; in other words, abnormal growth, proliferation and sometimes irregular spread of cells occurs in the body, leading to expansion, destruction and deterioration of healthy tissues [12]. Today, cancer is considered as one of the major health issues around the globe. The World Health Organization has predicted that cancer prevalence will double by 2020, making it the important cause of mortality in both more developed and less developed countries [6]. And shown that about 60% of cancers occur in developing countries [15]. In Iran, cancer is the second leading cause of mortality and expected to be doubled in the next two decades [19].

Cancer treatment can directly affect the patient's life. Due to chronic nature of the disease, they have to go through long term treatment with different chemotherapy agents. And frequent hospitalizations interfere with the individual's life and chemotherapy side effects can prevent them from enjoying various aspects of a normal life [4]. Hence, patients and their

families are faced with many challenges. Fear of premature death and the idea that their life is different from others causes isolation and depression in such patients.

According to [7]., cancer patients need at the time of diagnosis includes close and intimate relationship, empathy from health care staff, sharing their new status, need of information, praying and worship, contact support groups, hope, talking about their new social identity, death know-how and process, acceptance of family and friends despite their illness, and more caring and considerate family [7].

Through the review of literature, [13], [16]., found that individuals who experience loneliness fail to establish and maintain close friendly relationships, since they engage in a dialogue with negative expectations and miscalculation, as well as lack of necessary social skills. These people are anxious and uncomfortable in social situations and very sensitive and self-conscious to rejection. They have experienced difficulties in establishing friendly relations; engaging in social activities; participating in groups, gatherings and parties; and controlling their surroundings. They have negative views on themselves, considering themselves as worthless, disgusting, and socially unqualified, with a low self-esteem. This can be a good assumption that by integrating loneliness models with Hamburger and Ben-Artzi's model, internet could provide those who feel lonely with an ideal social environment. Online anonymity, lack of physical presence of others and unwanted face to face interactions would allow the lonely users to control their social interaction. Internet relations could facilitate self-avoidance, self-disclosure, intimacy and presenting themselves in a better way; in addition to providing an arena for practice and improvement of their social skills. These online facilities, combined with reduced social anxiety, allow lonely people to present themselves more optimally. Furthermore, some lonely people use the Internet as an escape route to reduce stress and negative feelings associated with loneliness[13].

Social media is a web-based tool that affects different social functions including social influence, social control and social support and many factors are involved as why some people turn to them. [8]. Those who feel empty and are frustrated or have personal issues, experiencing a changing life event such as divorce, disease or death may be get interested in the virtual world full of dreams, imagination, and hidden relationships. The Internet can be seen as a psychological escape route, to distract the user from the real-life problems or difficulties. In a national scenes study on adolescents, it appeared that youths with depression symptoms were more attracted to interact with strange people on the Internet than their own healthy peers; the Internet was a more appealing approach for interpersonal relations by this group, and they had more self-disclosure in online relationships [18]. In another study, we also found that using social media led to reduction in psychological symptoms in dimensions of Beck Depression Inventory (BDI) variables among cancer patients [9].

Effectiveness and efficiency of traditional media in the health care sector has been greatly covered in the literature, but the use of social media is a vague issue, the efficiency of which has been investigated in few studies. Traditional media is used for different purposes, such as communicating health related messages and behavioral changes. Since a vast number of people use the Internet in search for health related information, many healthcare organizations are beginning to use social media as a means to connect with people in order to provide various services [2].

Hence, content production, sharing and publishing health messages and information will be possible by the use of social media. These media also make it possible to access the part of the society that is no longer accessible through traditional methods (such as young people in society). Moreover, social media can provide the general public with social and emotional support to accept or change their behavior. Social media will also make it possible to discuss sensitive medical and health issues that are impossible to publically talk about, due to cultural limitations. Sharing experiences in open-source social media can lead to giving and receiving social support and better patient understanding [1]. It was revealed through research studies that communicating with others and getting social support have effects on coping with stress in cancer patients [3]. Moreover, cyberspace and social media can provide these people with a suitable context for communication and exchange of information [20]. Therefore, it can be argued that current capacity of these media should be used in the fullest to improve the patients' personal and social life.

This study aimed to investigate the use of social media to help cancer patients overcome their loneliness that has caused deep emotional and mental problems. It is expected that the results of this study would improve such patients' social performance and their quality of life and finally accelerate their treatment.

## Materials and Methods

The participants in this descriptive study included 316 cancer patients who referred to Emam Reza and Motahari clinics of Shiraz University of Medical Sciences were selected using convenience sampling. Those who agreed to fill out the questionnaire and have an interview and had no problem to participate were included in the study.

The questionnaire that was completed by each participant included sections assessing demographics to describe the population in terms of (age, gender, profession, educational level, income, disease duration, etc.), the Internet experience (regarding usage, preference social media activities, the number of hours spent during the day on social media). The instrument used to measure loneliness was the social and emotional loneliness scale for adults (SELSA-S). The scale used in the current study was a 15-item scale with three subscales including romantic, social, and familial issues. Each item had five points in Likert rating scale from zero (completely agree) to four (completely disagree). The higher the scores in each subscale, the greater the feeling of loneliness.

Reliability and validity of the loneliness questionnaire were measured in the general population in Iran [10].

**Result**

In this study, 316 cancer patients aged 20-59 years old were investigated; among them 184 were female and 132 were male. The patients' mean age was 28.8±9.17 years. 181 participants were regular social media users, among whom 65 were female and 116 were male. (Table 1) shows the participants' demographic characteristics.

**Table 1:** The participants' demographic characteristics

Variable	N	percent
Gender		
Male	132	41.77
Female	184	58.22
Age		
Under 30 years	191	60.44
Above 30 years	125	39.55
Education		
Under diploma	93	29.43
Above diploma	223	70.56
Duration of illness		
Under 2 years	134	42.4
Above 2 years	182	57.59
Use of social media	181	57.27
Male	65	35.91
Female	116	64.08

As shown in (Table 2), the results of the t-test indicated that individuals who used social media scored higher on the romantic, family, social, subscales of SELSA than non-users. These differences were statistically significant (P < 0.001).

**Table 2.** Descriptive statistics

Variable	Use of social media				t- test	P Value
	Non- user		user			
	SD	M	SD	M		
social loneliness	1.15	12.29	2.13	14.53	11.07	<0.001
familial loneliness	2.96	19.57	3.24	21.06	5.75	<0.001
Romantic	3.6	11.83	3.18	14.23	6.27	<0.001
loneliness	5.43	35.63	5.32	38.41	4.55	<0.001

To investigate the correlation between the use of social media with romantic, familial, social and total loneliness scores of individuals, Pearson correlation coefficient was computed. The results are presented in (Table 3).

**Table 3.** Correlation matrix of the study variables

Variable	1	2	3	4
1. social loneliness	1			
2. familial loneliness	0.68**	1		
3. Romantic loneliness	0.31**	-0.27**	1	
4. loneliness	0.53**	0.44**	0.28**	1

\* p<0.05

\*\* p<0.001

As shown in [Table 3], the results revealed a significant positive correlation between the use of social media and total loneliness ( $r=0.73$ ,  $p < 0.001$ ); use of social media and familial loneliness ( $r=0.65$ ,  $p < 0.001$ ); use of social media and romantic loneliness ( $r=0.14$ ,  $p > 0.05$ ); and use of social media and social loneliness ( $r=0.48$ ,  $p < 0.001$ )

### Discussion

The results obtained from this study have shown that a considerable number of lonely cancer patients have continuously used social media sites. They were more likely to make and interact with online friends and use the Internet for getting social support.

In this study, we found that for cancer patients who felt lonely due to the characteristic of their disease, social media were used as an escape route to satisfy their emotional needs and to fill a void. This result is in line with [13], [5] survey on 277 students to evaluate the variances amongst isolated and socially active students in patterns of the Internet usage. It showed that social behavior of the isolated individuals had improved online, and they were more likely to report making online friends and improve their satisfaction with their online friends [13]. Moreover, in the study of [17], "The Relationship between Internet Communication and Depression, Loneliness, Self-Esteem, and Perceived Social Support", it was found that the Internet use decreased loneliness and depression significantly, while perceived social support and self-esteem increased significantly [17].

Our findings also revealed that there was a positive correlation between familial loneliness and social media usage; this may be due to the central role of family as the main source of social support in traditional societies. It has been shown that low familial support may lead to manifestations of depression and loneliness in cancer patients. When family is dysfunctional, psychosocial complications are more prevalent. Consequently, they may look for online support. There is no evidence in other studies to confirm our findings and this could be due to cultural differences.

We also found that there was a significant positive correlation between social loneliness and the use of social media in cancer patients, and as it was suggested in the study by Peter Golden, it could be due to stereotyping and labeling of society towards cancer patients [14]. This is one of the reasons for cancer patients' isolation from the community, which is why they prefer to join online support due to its convenience, and having 24-hour access from home, anonymity, access to personal and professional support data, shared experiences, and support from online groups and online forums. Researchers have explained that in some instances a strong support network could even improve the survival rate of cancer patients. The study conducted by Leung on 718 youngsters aged 9 to 19 showed the practices of online social activities in order to expose the links between preferences for online interaction and isolation, social support, and the facilitating effect of identity experimentation online [11]. In another study by [5], it was shown that people with greater levels of emotional instability related to loneliness were more likely to use social media [5].

Moreover, in the current study we found no significant relationship between romantic loneliness and the use of social media. This could be due to lack of face to face interaction. Therefore, it can be argued that since face to face interaction is necessary in a romantic relationship, people prefer to have a real relationship rather than an online social interaction. In conclusion, Individuals who experience loneliness have many problems, such as failing to establish and maintain close relationships, engaging in social activities, participating in group activities, and controlling their state of affairs. Cancer patients feel lonelier than others and this can affect their treatment process. Therefore, evaluation and treatment of this disorder is vital. In this study, we examined the relationship between loneliness and intention to use social media in cancer patients. A total number of 316 patients participated in this study. The results showed that patients who are socially lonely and have familial loneliness were more likely to use the social media for support than others.

### Acknowledgment

The authors would like to thank the Research Consultation Center (RCC) of Shiraz University of Medical Sciences for their invaluable assistance in analyzing the data and editing the manuscript. We also acknowledge the valuable assistance of Dr. Hamid Nasrollahi in performing this study.

### Conflict of interest:

No potential conflict of interest was reported.

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