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The Relationship between Hope and Self-Esteem in Patients with Leukemia

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ABSTRACT

Introduction: Patients with hematologic malignancies often experience many emotional reactions which are different based on patient's culture. Indeed culture determines the different ways that patients understand cancer. Accordingly, the aim of this study was to determine the relationship of self-esteem and hope among Iranian cancer patients.

Methods: This descriptive-correlational study was undertaken among 85 leukemic patients admitted to Shahid Ghazi hospital in East-Azerbaijan province, Iran. They were selected using consecutive sampling method. Persian form of Hearth Hope Index and Coppersmith Self-Esteem Inventory were used to identify patients' hope and self-esteem. The data were analyzed using SPSS version 13.0.

Results: The overall scores of hope and self-esteem were 33.05 (5.24) and 94.61 (11.51), respectively. There was a positive correlation between hope and self-esteem (r_s = 0.73, n = 85, P < 0.001).

Conclusion: Although culture determines the different ways that patients understand cancer, but it seems that the self-esteem and hope relationship could be similar in different cultures. The findings of this study indicate that nurses could be helpful through designing and implementing appropriate educational programs in order to enhance hope and self-esteem of leukemia patients.

Introduction

Cancer is a life-threatening disease and in many cultures was perceived as incurable.[1] Hematologic malignancies represent the fifth most common diagnosed cancer type. It is estimated that there were 150,000 new cases of lymphoma, multiple myeloma, and leukemia diagnosed in the U.S. in 2012, which resulted in nearly 55,000 deaths.[2] In Iran, the incidence of leukemia in women and men 15-49 years, was 13.89% and 18.31% in 100,000, respectively. It has been estimated that leukemia's account for 4.89% of all the cancers in Iranian men.[3]

Leukemia is a cancer of the bone marrow and blood. The four major types of leukemia are acute myeloid leukemia, chronic myeloid leukemia, acute lymphoblastic leukemia and chronic lymphocytic leukemia.[4]

In addition to common complications of chronic diseases, patients with hematological malignancies experience significant physical symptoms such as fatigue, insomnia, drowsiness, pain, dyspnea, and neuropathy due to progressive cancer and anti-neoplastic treatments.[5-7] It seems that disclosure of cancer has negative effects on cancer patients.[8] Moreover, patients with hematological malignancies are often treated

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with intensive anti-neoplastic regimens that may continue for many years and even until the last days of life.[9] Hope is one of important sources that can helps cancer patients cope more efficiently at all stages of the disease.[10]

Hope is a multidimensional and dynamic construct which has been defined as the possibility of a better future from an uncertain present.[11] Literature revealed that hope is an important factor in the recovery of cancer patients[12] Cancer patients appears to be more influenced by the level of hope than other diseases.[13] For example as hopelessness is a risk factor for suicide[14] thus, identifying factors that affects the hope of cancer patients specially newly diagnosed patents is of great importance.

Hope involves of positive thinking towards the future and the desire to make an effort for life.[15] Regarding the importance of hope in leukemic patients, there are inadequate studies which examined the hope in Iranian cancer patients.[12]

As self-esteem is a complex structural concept, there is no consensus regarding its definition.[16] For example in sociology and psychology, self-esteem reflects a person's overall emotional evaluation of his or her own worth. It is a judgment of oneself as well as a feeling toward the self. Self-esteem includes beliefs (for example, "I am successful," "I am respected") and emotions such as triumph, despair, pride and shame.[17]

It also has been defined as a relationship between self-image and the ideal-self of a person.[18] self-esteem plays an important role in the process of encountering and coping with the diseases. Deteriorated self-esteem is a common feeling among cancer patients.[19]

Hope and self-esteem as the symbols of spiritual dimension are usually associated with persons' physical and mental health.[20] It is necessary to pay more attention to emotional reactions of patients with hematologic malignancies in nursing care agencies.[21] Although some studies have been conducted regarding the association of these concepts in patients with hematologic malignancies, there are inadequate studies which examined this relationship[22] among Iranian cancer patients. Accordingly, the aim of this study was to examine the relationship of hope and self-esteem among hematologic cancer patients in Iran.

Materials and methods

This descriptive-correlational study was conducted in oncology wards of Shahid Ghazi Tabatabai hospital affiliated to Tabriz University of Medical Sciences, Tabriz, Iran. The sample size (n=85) was calculated based on a pilot study of 30 patients. Participants were selected using consecutive sampling method. The study population included all the patients who admitted to this hospital and met the following criteria: (a) having confirmed cancer diagnosis; (b) be at least 14 years old; (c) willing to participate in the study; and (d) lack of mental illness such as depression and physical or mental disability.

The data collection tools composed of three parts. The first part included a demographic and social check list which designed to collect some participants' properties such as age, gender, education, economy, job, marital status, type and duration of treatments, etc.

The second part included Herth Hope Index (HHI). This scale has 12 items classified according to a four-point Likert scale ranging from 1(not true at all) to 4 (always true). Two of the items (3 and 7) are scored in the reverse. The total scores of HHI ranging from 12 to 48 points; the higher the score, the greater the level of hope.[23] This scale has been used in some Iranian studies.[21] The third part of instrument was coppersmith self-esteem Inventory consisted of 35 items classified according to a four-point Likert scale ranging from 1 to 4. The total scores of Coppersmith self-esteem Inventory ranging from 35 to 140 scores; the higher the score, the greater the level of self-esteem.[24]

The scales face and content validity were assessed and verified by the expert panel constituted 13 members of Tabriz University of Medical Sciences. HHI has been used

successfully in other studies in Iran. The reliability co-efficient using test re-test in cancer patients for HHI (Persian form) was 0.84 in one study.[22] The reliability of Coopersmith self-esteem Inventory (Persian form) also confirmed by Ansari Jaberi et al.[25]

Before the data collection, the study proposal was approved by the regional ethics committee of Tabriz University of Medical Sciences. Patients who met criteria for the study were identified and all eligible patients were invited to participate. After being presented basic information, patients who were willing to participate were asked to participate in a private interview for data collection. All patients who participated in the study gave informed consent.

Data were analyzed using SPSS version 13. Descriptive statistics such as the mean (standard deviation) were used to describe demographic data and levels of hope and self-esteem among patients. Regression models and Spearman's Correlation coefficient (r_s) were used to analyze the associations between patients' hope and self-esteem. $P < 0.05$ was considered significant.

Results

The majority of the participants were male, married, had high school education and low economic status, and also were admitted to the hospital for chemotherapy (Table 1).

As shown in Table 2, the mean and standard deviation of hope and self-esteem levels were 33.05 (5.24) and 94.61 (11.51), respectively. There was no significant correlation between hope and demographic variables, as well as between self-esteem and these variables using Regression analysis (Tables 3). There was a strong positive correlation between the hope and self-esteem variables using the Spearman's correlation coefficient ($r_s = 0.73$, $n = 85$, $P < 0.001$).

Table1. Demographic characteristic of Patients

Variable	N (%)	Missed
Sex		
Female	33 (38.82)	-
Male	52 (61.17)	-
Education level		
Illiterate	19 (23.2)	2
Reading and writing literacy	11 (13.4)	
Under diploma	11 (13.4)	
Diploma	21 (25.6)	
University	20 (24.4)	
Economic status		
Income = expense	29 (36.3)	5
Income >expense	9 (11.3)	
Income < expense	42 (52.5)	
Marital status		
Single	35 (42.2)	2
Married	47 (56.6)	
Widow	1 (1.2)	
Treatment		
Chemotherapy	80 (97.6)	3
Radiotherapy	1 (1.2)	
Other treatments	1 (1.2)	

Table 2. Patients' mean and standard deviation of hope and self-esteem

Index	Mean (SD)	Max	Min
Hope level	33.05 (5.24)	43	19
Self-esteem	94.61 (11.5)	122	65

Table 3. The association between hope and Self-steem some demographic variables

	Hop		Self-steem	
Variable	**B Coefficient**	**P**	**B Coefficient**	**P**
Age	0.073	0.69	0.25	0.15
Gender	-0.025	0.86	-0.006	0.96
Education	0.061	0.68	0.18	0.20
Economy	-0.268	0.06	-0.16	0.23
Job	0.156	0.31	0.17	0.23
Marital status	-0.067	0.71	-0.12	0.48
Treatment	0.183	0.15	0.06	0.59
Duration of suffer from illness	0.804	0.34	0.86	0.31
Duration of treatment	-0.873	0.29	-0.92	0.27

Discussion

According to the main objective of this study, the findings showed that there was a positive correlation between hope and self-esteem in Iranian leukemic patients. However, there were no significant correlations between any of demographic variables with hope and self-esteem scores. Similar to our findings in another study in Iran researchers found no significant differences between any of demographic variables and self-esteem.[25] So the self-esteem of male leukemic patients had no significant correlation with any of mentioned individual variables. However, for female patients, this correlation was positive because most of them had been cared by someone in the home.

The study findings showed leukemic patients had moderate to high levels of hope. Some other national studies have been reported similar findings.[12,25,26] So, the finding of this study highlighted the importance of existing evidence. The findings of studies in other countries also revealed that most of cancer patients had moderate to high levels of hope. For example in a study in Norway, 59.5% of cancer patients reported modest level of hope.[27] The findings of another study showed that Taiwanese cancer patients had moderate levels of hope.[28] High level of hope among cancer patients can be explain by this hypothesis that depressed and anxious cancer patients with low hope levels usually are not willing to participate in such studies.[29] It seems that when people are faced with life threatening diseases gradually find cognitive compatibility and reorganize their values.[29] It seems that however the primary hope level reduces in the process of these changes, cancer patients still expect to be treated. In this study we did not examined whether the participated patients had been informed to their diagnosis which may also explain their moderate or high levels of hope.

However, the findings of studies in some Western countries showed that being informed to cancer diagnosis had no adverse effects on the patients hope and in some cases such informing had an increasing effect on the patients' level of hope.[30]

The study findings also showed leukemic patients had moderate level of self-esteem. A few studies had focused on self-esteem in patients with cancer.[31] Similar to our

findings in another study in Iran, the cancer patients in both genders had moderate level of self-esteem.[32]

This study also showed that there was a positive numerical correlation between the patients hope and self-esteem. Similarly, the findings of a study in Italia also showed a positive correlation between hope and self-esteem in cancer patients.[21]

The findings of this study showed that self-esteem was one of the factors that could affect patients' level of hope. Although culture may determines the different ways that patients understand cancer, but it seems that self-esteem and hope relationship could be similar in different cultures. Despite the strength of this study, it also has some limitations. First, the patients' answers to scale items might be affected by their physical fatigue and mental status. However, this limitation resolved to some extent by postponing the meeting for data collection to subsequent sessions. Furthermore, this study was done in oncology wards of Shahid Ghazi Hospital in Tabriz, which is not representing variations of all the country population.

Conclusion

The findings of the present study have shown that there was a positive correlation between hope and self-esteem in Iranian cancer patients. The study findings could be helpful for nurses through designing appropriate educational programs for maintaining and promoting hope and self-esteem among leukemic patients. Although culture determines the different ways that patients understand cancer, but it seems that the self-esteem and hope relationship could be similar in different cultures. In relation to future research, replicating such studies with better sampling methods in other Iranian cultures as well as Middle East countries are required.

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Ethical issues

Before the data collection, the study proposal was approved by the regional ethics committee of Tabriz University of Medical Sciences. Patients who were willing to participate were asked to participate in a private interview for data collection.

Conflict of interest

The authors declare no conflict of interest in this study.

References

1. Kazdaglis GA, Arnaoutoglou C, Karypidis D, Memekidou G, Spanos G, Papadopoulos O. Disclosing the truth to terminal cancer patients: a discussion of ethical and cultural issues. East Mediterr Health J 2010; 16 (4): 442-7.
2. Siegel R, Naishadham D, Jemal A. Cancer statistics 2012. CA Cancer J Clin 2012; 62 (1): 10-29. doi: 10.3322/ caac.20138.
3. Hadi N, Namvar E, Montazeri A. Health-related quality of life in adults lukemic patients. Payesh 2011; 10 (2): 151-2. (Persian)
4. DeGennaro LJ. Acute Myeloid Leukemia: The Leukemia & Lymphoma Society[Internet].New York: The Leukemia & Lymphoma Society; 2011 [cited 2015]. Available from: www.lls.org/.../ leukemia/ pdf/aml.pdf.
5. Franchini M, Frattini F, Crestani S, Bonfanti C, editors. Bleeding complications in patients with hematologic malignancies. Semin

Thromb Hemost 2013; 39 (01): 94-100. doi: 10.1055/s-0032-1331154.
6. Bousquet A, Malfuson JV, Sanmartin N, Konopacki J, Macnab C, Souleau B, et al. An 8-year survey of strains identified in blood cultures in a clinical haematology unit. Clinical Microbiology and Infection 2014; 20 (1): 07-012.
7. Hui D, Didwaniya N, Vidal M, Shin SH, Chisholm G, Roquemore J, et al. Quality of end-of-life care in patients with hematologic malignancies: A retrospective cohort study. Cancer 2014; 120 (10): 1572-8. doi: 10.1002/ cncr.28614.
8. Seyedrasooly A, Rahmani A, Zamanzadeh V, Aliashrafi Z, Nikanfar A-R, Jasemi M. Association between Perception of Prognosis and Spiritual Well-being among Cancer Patients. J Caring Sci 2014; 3 1: 47-55.
9. Hui D, Karuturi MS, Tanco KC, Kwon JH, Kim S-H, Zhang T, et al. Targeted agent use in cancer patients at the end of life. J Pain Symptom Manage 2013; 46 (1): 1-8. doi: 10.1016 /j.jpainsymman. 2012. 07.007.
10. Chaturvedi SK, Shenoy A, Prasad KMR, Senthilnathan SM, Premlatha BS. Concerns, coping and quality of life in head and neck cancer patients. Supportive Care In Cancer 1996; 4 (3): 186-90.
11. Duggleby W, Holtslander L, Kylma J, Duncan V, Hammond C, Williams A. Metasynthesis of the hope experience of family caregivers of persons with chronic illness. Qualitative Health Research 2010; 20 (2): 148-58. doi: 10.1177/10497 323 09358329.
12. Abdullah-zadeh F, Agahosseini S, Asvadi-Kermani I, Rahmani A. Hope in Iranian cancer patients Iran J Nurs Midwifery Res 2011; 16 (4): 288-91.
13. Lheureux M, Raherison C, Vernejoux J, Nguyen L, Nocent C, Tunon De Lara M, et al. Quality of life in lung cancer: does disclosure of the diagnosis have an impact? Lung Cancer 2004; 43 (2): 175-82.
14. Lin HC, Wu CH, Lee HC. Risk factors for suicide following hospital discharge among cancer patients. Psycho-Oncology 2009; 18 (10): 1038-44. doi: 10.1002/ pon.1483.
15. Kyngäs H, Mikkonen R, Nousiainen EM, Rytilahti M, Seppänen P, Vaattovaara R, et al. Coping with the onset of cancer: coping strategies and resources of young people with cancer. European journal of cancer care 2001; 10 (1): 6-11. doi: 10.10 46/j. 1365-2354.2001.00243.x.
16. Demo DH. The measurement of self-esteem: Refining our methods. Journal of Personality and Social Psychology 1985; 48 (6): 1490.
17. Hewitt JP. Oxford Handbook of Positive Psychology. 2nd ed. Landan: Oxford University Press; 2009.
18. Mohtashemi J, Noghani F, Madadi A. Individual and social psychology. 1St ed.Tehran: Jameenegar; 2008.
19. Berterö CM. Affected self-respect and self-value: the impact of breast cancer treatment on self-esteem and QoL. Psycho-Oncology 2002; 11 (4): 356-64. doi: 10.1002/pon.577.
20. Pourghaznin T, Ghaffari F. Study of the relationship between hospfulness and self-esteem in renal transplants recipients at Imam Reza hospital, Mashhad, Iran , 2002-03. The Journal of Shahid Sadoughi University of Medical Sciences 2005; 13(1): 57-61.
21. Frieson TC, Frieson CW. Relationship between hope and self-esteem in renal transplant recipients. Journal of Transplant Coordination 1996; 6 (1): 20-3. doi: 10.71 82/prtr.1.6.1.q5234 7756 145h 374.
22. Vellone E, Rega ML, Galletti C, Cohen MZ. Hope and related variables in Italian cancer patients. Cancer Nurs 2006; 29 (5): 356-66.
23. Afrooz R, Rahmani A, Zamanzadeh V, Abdullahzadeh F, Azadi A, Faghany S, et

al. The nature of hope among Iranian cancer patients. Asian Pac J Cancer Prev 2014; 15 (21): 9307. doi: 10.7314/APJ CP.20 14.15.21.9307.
24. Ansari Jaberi A, Mohammadi E, Fathi Ashtiani A. Study of the effect of a designed physical exercise program on elderly's self-esteem. Iranian Journal of Psychiatry and Clinical Psychology 1997; 3 (1-2):75-9.
25. Baljani E. Studying the hope and its relationship with individual-social characteristics in cancer patients referred to Shahid Ghazi Educational Medical Center in Tabriz in 2003. [Master thesis]. Iran: Tabriz University of Medical Sciences; 2003.
26. Baljani E, Khashabi J, Amanpour E, Azimi N. Relationship between spiritual well-being, religion, and hope among patients with cancer. Hayat 2011; 17 (3): 27-37.(Persian)
27. Rustøen T, Wiklund I, Hanestad BR, Moum T. Nursing intervention to increase hope and quality of life in newly diagnosed cancer patients. Cancer Nursing 1998; 21 (4): 235-45.
28. Lin CC, Tsay HF. Relationships among perceived diagnostic disclosure, health locus of control, and levels of hope in Taiwanese cancer patients. Psycho-Oncology 2005; 14 (5): 376-85. doi: 10. 1002 /pon.854.
29. Rustøen T, Wiklund I. Hope in newly diagnosed patients with cancer. Cancer Nursing 2000; 23 (3): 214-9.
30. Agha hosini SS, Abdollahzadeh F,Asvadi Kermani e,Rahmani A. Relationship between awareness of cancer diagnosis and hope in patients with cancer. Iranian Journal of Medical Ethics and History of Medicine 2010; 3 (5): 45-52.(Persian)
31. Kobayashi M, Sugimoto T, Matsuda A, Matsushima E, Kishimoto S. Association between self-esteem and depression among patients with head and neck cancer: A pilot study. Head & Neck 2008; 30 (10): 1303-9. doi: 10.1002/ pon.854.
32. Noghani F, Monjamed Z, Bahrani N, Ghodrati Jablo V. The comparison of self-esteem between male and female cancer patients. Hayat 2006; 12 (2): 33-41. (Persian)