

Original Article**Hope in Iranian cancer patients**

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Abstract

BACKGROUND: Hope is an important factor in the recovery of cancer patients. Few Iranian studies investigated the level of hope in cancer patients. Therefore, the present study aimed to investigate the level of hope in Iranian cancer patients and the related factors.

METHODS: In a descriptive correlational study, 150 cancer patients were selected by a consecutive sampling method. Hope in patients was measured by the Herth Hope Index. Data analysis was performed using descriptive and inferential statistics.

RESULTS: Results indicated that 61.1% of the patients had high levels of hope, 35.4% had moderate levels of hope, and 3.5% had low levels of hope. Hope has a statistically significant relationship with family support, but it is not statistically associated with other patient characteristics.

CONCLUSIONS: Many cancer patients had a high level of hope. However, further studies are recommended to investigate the relation between hope and patient characteristics.

KEY WORDS: Cancer, patients, oncology.

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Cancer diagnosis leads to severe emotional responses.¹ Hope is one of the most important factors that can help cancer patients adapt to their diagnosis.² Hope consists of positive thinking towards the future and the desire to effort for life.³ Cancer appears to be more effective than other diseases on the level of hope in patients.^{4,5}

Results of studies in Europe and Southeast Asia have shown that most cancer patients have moderate to high levels of hope.⁶⁻⁹ For example, Zhang et al. found that the level of hope in Chinese cancer patients was moderate.¹⁰ Also, Reynolds reported moderate levels of hope in American patients with cancer.¹¹ Likewise, Vel-

lone et al. observed moderate levels of hope in Italian cancer patients.⁹

However, results from different studies are not consistent regarding the correlation between hope and cancer patient characteristics, including age, sex, educational level and duration of cancer diagnosis and therefore, clear conclusions cannot be made in this area.¹¹⁻¹⁴

The only article we could find about levels of hope in Iranian cancer patients reported the levels of hope as moderate among these patients.¹⁵ So, enough studies about hope in cancer patients have not been done in Iran and it is impossible to conclude based on the results of the only available study. On the other hand,

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hope is conceptually related to cultural and religious factors; therefore, the results of studies conducted in other countries are not applicable in Iran. Consequently, the present study aimed to investigate the level of hope in Iranian cancer patients and the related factors.

Methods

This descriptive-correlational study was conducted in 2009 in Shahid Gazi Tabatabaee hospital associated with Tabriz University of Medical Sciences. The study population consisted of patients who had a final diagnosis of cancer, were aware of their disease, and were at least 18 years old. Patients with other chronic diseases were excluded. Since the beginning of the study, the data of 150 patients were collected by a consecutive method.

A questionnaire consisting of two parts was used for data collection. The first part assessed the demographic characteristics of patients. It should be noted that living with family members, level of responsibility and level of support from family members were assessed by three questions. The second part included the Herth Hope Index containing 12 items. Total score of this questionnaire was between 12 and 48. Validity of the questionnaire was determined by content methods and necessary changes were applied after receiving the expertise. Then, the reliability of the questionnaire was determined using alpha Cronbakh (reliability coefficient was 0.91).

In order to collect data, the researchers went to the hospital every day and selected the patients who met the inclusion and exclusion criteria. The data of literate patients were collected by self-report. Interviews were performed to

collect illiterate patients' data.

This study was approved by the local research ethics committee and an informed consent was obtained from each participant.

For data analysis SPSS statistical software (version 13) was used. One-way ANOVA, independent samples t-test, and Pearson test were used. Numerical variables were presented as mean (standard deviation).

Results

Average age of patients was 43.9 (16.3) years. 52.8% of the participants were women, and 71.5% were married. 38.9% of patients were illiterate. Average duration of cancer diagnosis was 2.0 (2.4) years. Most patients lived with their partners (72%), 48.7% had no responsibilities and 42.7% reported their family support as very good.

Hope levels in patients is reported in Table 1. Assessment of the relationships between demographic factors and hope using Pearson correlation test showed no statistical relationship between age and hope ($r = 0.03$, $p = 0.71$) nor between duration of cancer diagnosis and hope ($r = 0.09$, $p = 0.28$). The association between other demographic variables and hope can be seen in Table 2. As seen in this table, the only significant correlation was observed between family support and hope in the participants.

Discussion

The results showed that most patients had high hope. Rustoen and Wiklund studied Norwegian cancer patients and reported 59.5% to have modest levels of hope.¹² In another study, Lin and Tsay cleared that Taiwanese cancer patients had average levels of hope.⁸ Pour Ghaznin et al.

Table 1. Hope level and its dimension in cancer patients

| Variables | Hope (quantitative) | | Hope (qualitative) | | |
|-----------------------------------|---------------------|--------------------|--------------------|---------------|------------|
| | Mean | Standard deviation | Low N (%) | Average N (%) | High N (%) |
| Hope (overall) | 37.6 | 6.4 | 5 (3.5) | 51 (35.4) | 88 (61.1) |
| Temporality and future | 12.2 | 2.5 | 11 (7.6) | 65 (45.1) | 68 (47.2) |
| Positive readiness and expectancy | 12.2 | 2.3 | 6 (4.2) | 70 (48.6) | 68 (67.2) |
| Interconnectedness | 13.1 | 2.4 | 10 (6.9) | 47 (32.6) | 87 (60.4) |

Table 2. Association of hope with characteristics of cancer patients

| Variable | Subgroups | Mean | Standard deviation | Statistics |
|-----------------|-------------------|------|--------------------|-------------------------------|
| Sex | Male | 37.9 | 6.0 | t = -0.55, df = 142, p = 0.57 |
| | Female | 37.3 | 6.7 | |
| Marital status | Single | 37.6 | 5.5 | t = -0.17, df = 142, p = 0.85 |
| | Married | 37.8 | 6.6 | |
| | Illiterate | 36.3 | 6.3 | |
| Education | Primary school | 37.4 | 7.3 | F = 1.84, df = 5, p = 0.10 |
| | Guidance school | 35.3 | 4.4 | |
| | High school | 39.9 | 6.8 | |
| | University degree | 39.1 | 5.9 | |
| Economic status | Very low | 34.5 | 7.9 | F = 2.33, df = 4, p = 0.05 |
| | Low | 37.3 | 5.4 | |
| | Moderate | 38.5 | 6.2 | |
| | Good | 38.4 | 5.8 | |
| | Very good | 42.3 | 4.9 | |
| Living | Alone | 38.8 | 3.3 | F = 1.10, df = 3, p = 0.35 |
| | With spouse | 37.6 | 6.7 | |
| | With parent | 37.9 | 5.6 | |
| | With others | 32.0 | 4.8 | |
| Responsibility | Very low | 36.6 | 4.7 | F = 1.20, df = 3, p = 0.31 |
| | Low | 37.6 | 6.1 | |
| | Moderate | 37.6 | 5.8 | |
| | High | 39.6 | 6.5 | |
| Family support | Very good | 39.6 | 6.1 | F = 5.01, df = 3, p = 0.002 |
| | Good | 36.7 | 6.0 | |
| | Moderate | 34.8 | 6.6 | |
| | Weak | 31.5 | 3.5 | |

showed that the level of hope in 64% of Iranian cancer patients was moderate.¹⁵ Thus, as can be seen, the results of this study are in agreement with the results of previous studies, which implies that there are similarities regarding hope among cancer patients in different countries and different cultures. It seems that most of these studies reported moderate levels of hope because they were conducted in patients with various types of cancer and at different stages of disease.

All studies confirmed that family support can have positive effects on cancer patients' hope. Vellone et al. suggested that the support received from family and close friends has a positive impact on the level of hope in cancer

patients.⁹ A study in Taiwan also found a strong statistical relationship between hope and received social support and familial relationships.⁸ In Iran, Pour Ghaznin et al. indicated that the hope in cancer patients has a meaningful relationship with levels of social support received by the patients.¹⁵

Previous studies found different results concerning other demographic variables. Pour Ghaznin et al. showed that the relationship between age and level of hope was not significant.¹⁵ On the other hand, Rustoen and Wiklund suggested that age was inversely correlated with hope and that hope was higher in older patients.¹² However, Chang and Li found that an increase in age led into reduction of hope.⁶

Rustoen et al.¹² and Ballard et al.¹³ showed that levels of hope were more in male patients. On the contrary, Hendricks-Ferguson reported that the level of hope in female adolescents with cancer was higher than male patients.¹⁶ On the other hand, Vellone et al. showed that the level of hope in cancer patients wasn't associated with their sex.⁹ Thus, the results regarding the relation between sex, age and hope in cancer patients are confusing and require more transparency.

The overall findings of this study showed that the level of hope in cancer patients referred to Shahid Gazi Tabatabaee hospital was moderate. However, due to the intense effects of hope on physical and mental health of cancer patients hope enhancement is essential among these patients. Holding counseling programs and appropriate levels of nursing care will

improve patients' hope.

This study has some limitations. First, the study sample was selected using consecutive method. Second, self report was used for data collection. Therefore, performing other studies with higher sample size and better sampling methods is recommended. In addition, other studies are needed to assess the correlation of hope with the demographic characteristics of cancer patients.

The authors declare no conflict of interest in this study.

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References

- Gibson PR. Hope in multiple chemical sensitivity: social support and attitude towards healthcare delivery as predictors of hope. *J Clin Nurs* 1999; 8(3): 275-83.
- Chaturvedi SK, Shenoy A, Prasad KM, Senthilnathan SM, Premlatha BS. Concerns, coping and quality of life in head and neck cancer patients. *Support Care Cancer* 1996; 4(3): 186-90.
- Kyngas H, Mikkonen R, Nousiainen EM, Ryttilahti M, Seppanen P, Vaattovaara R, et al. Coping with the onset of cancer: coping strategies and resources of young people with cancer. *Eur J Cancer Care (Engl)* 2001; 10(1): 6-11.
- Bornman T, Stahl C, Betty F, Ferrell BR, Faan SD. The concept of hope in family caregivers of cancer patients at home. *Journal of Hospice Palliative Nursing* 2002; 4(1): 21-33.
- Lheureux M, Raheison C, Vernejoux JM, Nguyen L, Nocent C, Tunon DL, et al. Quality of life in lung cancer: does disclosure of the diagnosis have an impact? *Lung Cancer* 2004; 43(2): 175-82.
- Chang LC, Li IC. The correlation between perceptions of control and hope status in home-based cancer patients. *J Nurs Res* 2002; 10(1): 73-82.
- Li XB, Wu L. Correlation survey of social support and hope of patients with lung cancer. *Chinese Journal of Clinical Rehabilitation* 2004; 8: 7894-5.
- Lin CC, Tsay HF. Relationships among perceived diagnostic disclosure, health locus of control, and levels of hope in Taiwanese cancer patients. *Psychooncology* 2005; 14(5): 376-85.
- Vellone E, Rega ML, Galletti C, Cohen MZ. Hope and related variables in Italian cancer patients. *Cancer Nurs* 2006; 29(5): 356-66.
- Zhang J, Gao W, Wang P, Wu ZH. Relationships among hope, coping style and social support for breast cancer patients. *Chin Med J (Engl)* 2010; 123(17): 2331-5.
- Reynolds MA. Hope in adults, ages 20-59, with advanced stage cancer. *Palliat Support Care* 2008; 6(3): 259-64.
- Rustoen T, Wiklund I, Hanestad BR, Moum T. Nursing intervention to increase hope and quality of life in newly diagnosed cancer patients. *Cancer Nurs* 1998; 21(4): 235-45.
- Ballard A, Green T, McCaa A, Logsdon MC. A comparison of the level of hope in patients with newly diagnosed and recurrent cancer. *Oncol Nurs Forum* 1997; 24(5): 899-904.
- Herth KA. The relationship between level of hope and level of coping response and other variables in patients with cancer. *Oncol Nurs Forum* 1989; 16(1): 67-72.
- Pour Ghaznin T, Talasaz Firozi E, Houshmand P, Esmaeeli H. A comparative study of the hopefulness in cancer patients under treatment and those who completed the treatment. *Quarterly Asrar* 2000; 7(4): 48-55.
- Hendricks-Ferguson V. Relationships of age and gender to hope and spiritual well-being among adolescents with cancer. *J Pediatr Oncol Nurs* 2006; 23(4): 189-99.