The relationship between perceived social support and healthy life style in women with breast cancer in Iran

Zeinab Jalambadani (jalambadaniz@gmail.com)
Islamic Azad University Sabzevar Branch

Ahmad Sharifnezhad
Neyshabur University of Medical Sciences

Research Article

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Abstract

**Background:** Social support and life style are important for cancer patients, and many psycho-oncological studies have shown that social support improves their ability to cope with the cancer.

**Aims:** The purpose of this study was to determine the relationship between perceived social support and healthy life style in women with breast cancer in Sabzevar, Iran 2020.

**Methods:** In this cross-sectional study 300 of women with breast cancer are examined in Iran 2020. Questionnaires of Health Promoting Lifestyle Profile-II and Sarason's Social Support were assessed. The data were analyzed through Pearson correlation coefficient analysis and descriptive statistics.

**Results:** A positive relationship was found between the subscales of HPLP II and social support network total score \((r=0.62, P =0.001)\), spiritual growth \((r=0.56, P =0.001)\), interpersonal relations \((r=0.61, P =0.001)\) and stress management \((r=0.61, P =0.002)\). Strong relationship was found between the perceived satisfaction from social support network subscale and the HPLP II total score \((r=0.71, P<0.001)\).

**Conclusions:** The study suggests that the social support network would be strong relation to the healthy life style among breast cancer patients. Thus, it would be beneficial to pay attention to providing social support to breast cancer patients, particularly to those who are more vulnerable. Furthermore, investigation of the most effective and efficient methods to deliver social support interventions would be worthwhile.

**Background**

Breast cancer is the most commonly occurring cancer in women and the second most common cancer overall. According to an estimate of the Ministry of Health and Medical Education in 2000, breast cancer ranked first among cancers in Iranian women, comprising 21.4% of all malignancies in females (1).

Making positive lifestyle changes after diagnosis and treatment can have a strong psychological benefit, as the feeling of loss of control is one of the major challenges faced by people with breast cancer(2). One of the social determinants of health that refers to the importance of the social dimension is social support; the evidence is increasing for protective effects of social support on health outcomes. However, an important question, that is not clearly answered yet, is its directions and mechanisms (3). Social support is generally divided into two categories, the real social support that is the support people receive; the second batch including perceived or mental social support; the subjective sense of belonging, acceptance, recognition and assistance conditions is required. Social support is associated with multiple psycho-social benefits such as improved self-esteem, a sense of empowerment, improving health and higher quality of life and the lack of it is associated with lose of mental protests, stress and low level of health. Social support may be associated with factors that play a role in people's health or affect them. Lifestyle is among the factors that can have positive or negative impacts on health. Health requires promotion of lifestyle. To maintain and improve health, it is essential to correct and improve the lifestyle.
The world health organization (WHO) believes that change and modification of lifestyle can cause many risk factors that are among the most important causes of death(4).

Studies have compared people with cancer who had the most and least social support. Those with the most social support had better quality of life and lived longer. At the same time, positive impacts that social support can have on people with illness cannot be overemphasized. Cancer patients, in particular, showed higher quality of life(5, 6) and lower depression(7-9). When they perceived more social support. Although the exact mechanism linking social support with health-related outcomes remains unclear, social support seems to play an important role in living with cancer(10, 11). People with healthy lifestyles have more positive coping styles. They have a more positive attitude towards health and exercise, are less likely to run away from problems, receive more support, and are less emotionally irritable. Predicts health, and cognitions that play a role in healthy and unhealthy behaviors play an important role in the stress and health process.

Objectives:

The purpose of this study was to investigate the relationship between perceived social support and healthy life style and among women with breast cancer referred to Sabzevar hospitals in 2020.

Methods

The study was conducted as a cross-sectional design. The sample of this study was included 300 women with breast cancer in 2020. The samples were enrolled in the study, according to the inclusion criteria: age of adult females between 18 years and older, no pregnant, no breastfeeding, literate with Iranian nationality, at any stage of breast cancer treatment.

The formula was utilized for the calculation of the sample size, in which the power of study considered was 80%, P=0.63, Q= 0.37, d=0.1×P and α=0.05%(12). According to the formula, the sample size was 300.

\[
n = \frac{(Z1 - \frac{\alpha}{2})^2 (P \times q)}{(d)^2} = \frac{0.895}{0.003} \approx 300
\]

Data Analysis:

The data had been accrued with questionnaires. All the statistics have been analyzed by way of SPSS version 20.00 for windows. The socio-demographic homes of women taking part inside the observe are reported as a variety of and percent distribution. To research the average rating of the fitness-promoting lifestyle profile and the average rating of SSQ-S Scale, confirmation of regular distribution become acquired, and parametric (variance analyze, independent sample t test) and non-parametric tests (Man Whitney U and Kruskall Wallis) were performed. Correlation analysis was used to determine the
relationship between the Health Promoting Lifestyle Profile and SSQ-S Scale. P values <.05 were accepted as statistically significant.

**Instruments**

HPLPII questionnaire (Health Promoting Lifestyle Profile-II questionnaire). HPLPII questionnaire was included of 52 items. Physical activity (8 items), nutrition (9 items), stress management (8 items), spiritual growth (9 items), interpersonal relations (9 items), health responsibility (9 items). The reliability (test-retest) of the questionnaire was 0.97. Cronbach's alpha coefficient was calculated as 0.92, and its validity has already been confirmed.

The social support scale was conformed from the shorter Sarason's Social Support questionnaire (SSQ-S) developed by Sarason et al(13). The validity and reliability for SSQ-S questionnaire were administered in Iran (14, 15).

The SSQ-S original is a 12-item instrument that measures two appearances of PSS: six odd-numbered items count social support network (the number of women in the individual's social support system), the total number of women in the individual's social support system is further divided into family network and non-family network support and six even-numbered items that measure perceived satisfaction from social support network. The overall satisfaction from specific support is based on a six-point scale ranging from very satisfied to very dissatisfy.

In addition, some socio-statistic factors were asked from these women including age, marital status, education, employment status, income level. Completion of the questionnaires by the women took 30 minutes. Ethical approval to conduct the study was obtained from the ethical committee of Iran. Each participant gave written consent.

**Results**

Table 1 shows the demographic characteristics of the women who participated in the study. Their average age was 65.12 ±15.26 years, Non employed or retired 120(60%). The majority of participants were educated at a primary school level 180, 80 of them had a moderate income (Table 1). A positive relationship was found between the subscale of social support network and HPLP II total score (r=0.62, p=0.001), spiritual growth (r=0.66, p=0.000), interpersonal relations (r=0.61, p=0.001) and stress management (r=0.61, p=0.002). Strong relationship was found between the perceived satisfaction from social support network subscale and the HPLP II total score (r=0.71 p=0.001), Health responsibility (r=0.72 p=0.001), Physical activity (r=0.74 p=0.003), Nutrition (r=0.74 p=0.002), Spiritual growth (r=0.70 p=0.001), Interpersonal relations (r=0.74 p=0.001), Stress management (r=0.64 p=0.001) (Table 2).

**Discussion**
The current study is the first study to examine the relationship between healthy lifestyle and perceived social support among women with breast cancer in Sabzevar, Iran 2020.

Our survey a look at located that breast cancer patients understand better degrees of social aid, which in turn has stronger defensive consequences on HPLP. The most breast cancer sufferers also pronounced better ranges of social guide and HPLP. In addition, breast cancer sufferers mentioned more strain management and excessive ranges of HPLP. While there are some consistent findings, pressure can be in particular commonplace and intense among patients with advanced cancer stage due to the extended signs and symptoms, including pain and bodily disability (16). It is contradictory with the preceding research which found that superior most cancers ranges were related with lower healthy existence fashion (17).

It is also consistent with the literature (18) that breast cancer sufferers suggested significantly higher stage of perceived social support. This distinction would probably derive from most cancers sufferers having more activities to achieve encouragement and care from pals, colleagues and circle of relative’s contributors would possibly. The same principle could have been executed to the specific most cancers tiers if people of more superior maximum cancers stage had no longer accrued terrible transactions with human beings spherical them over the long direction of the remedy (5, 19). Study results concur with those of the study by Oh et al., in which they found a significant relationship between diet and cancer (20). Furthermore, decreased consumption of culmination and veggies ends in accelerated chance of most cancers, inclusive of cancer of the mouth, belly, esophagus, pancreas, colon, rectum, and cervix, and decreased intake of leafed greens results in increased threat of breast most cancers (21). Yarnall et al. observed that consumption of fiber-containing foods reduces cancer to 60% (22).

Health promotion behaviors are any moves or behaviors taken via people to improve or sell properly-being or fitness. Way of life behaviors together with feeling healthful, bodily pastime, healthy ingesting and managing stress are idea to be powerful behaviors for stopping most cancers and shielding average fitness. The outcomes of this look at also help this

While subgroups have been evaluated, huge relationships had been observed among all subgroups with healthful life fashion. Today the sphere of fitness promoting has shifted to embody the socio-ecological perspective of health which acknowledges the function of environmental and contextual elements on health promoting exercise and outcomes and disorder prevention activities which cannot be separated in fact from the health merchandising concept (23). In step with Walker et al. (1987), the HPLP differs from maximum life-style assessment measures, which focus mainly on health-shielding behaviors springing from hazard reduction models. Besides those cutting-edge data, no convincing study specializing in the connection between most cancers and fitness promoting life-style of women became determined in the literature. In a current overview, Bankhead et al. (2003) centered on analyzing the consequences of cholesterol, breast and cervical cancer screening on real or intended fitness-promoting behaviors and health associated beliefs. They concluded that ladies who attend breast and cervical screening as soon as are probably to reattend and attendance is related to several effective fitness behaviors, although it
can't be showed whether or not the affiliation determined is a result of screening or because these women have already got a positive set of healthy behaviors and ideals regardless of their revel in of screening. Our take a look at examined the relationship the health selling life-style and perceived social assist in women with cancer. Woman academicians who report fewer practice of fitness-promoting sports: specifically, interpersonal assist, self-actualization, nutrients, fitness responsibility, pressure control, and exercising, are more likely to carry out most cancers

**Conclusion**

In conclusion, we discovered a robust relationship between the perceived social support and the health life-style on this institution of women with breast cancer. Although it isn't always possible to generalize our consequences to all women with breast cancer, it can be stated that the perceived social help may additionally offer reliable outcomes in comparing the HPLP of women with most cancers. However, to aid this, additional studies among unique subgroups of women investigating the relationship between the perceived social guide and the fitness promoting way of life are needed.

One of the boundaries of the examine was the dearth of correct solutions to impeach associated with alcohol use, which may be due to prison and ethical issues; regardless of rationalization given via researcher regarding confidentiality of the facts, it is nevertheless viable that topics can also have replied inaccurately. Subsequently, researchers believe, given that not one of the collaborating Sabzevar citizens had a good life-style for most cancers prevention, it is vital to pay unique interest to reforming human beings' existence.

Additionally, it's far necessary for health care Authorities to take action to expand programs for network sensitization and people's attention to their existence. Amid, nurses, in particular network fitness nurses can play a critical role in reform and optimization of health fame, and in reforming human's behavior, and through supporting human beings to trade their lifestyle, can largely prevent incidence of cancer.

**Declarations**

**Funding**

'N/A'

**Conflicts of interest/Competing interests**

The authors declare that there is no conflict of interests.

**Availability of data and material**

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

**Code availability**
Authors' contributions

ZJ analyzed and interpreted the patient data. ZJ was responsible for data analysis and was a major contributor in writing the manuscript. ZJ performed the statistical analysis of our study. ASH was responsible for demographic and clinical data collection. ASH analyzed and interpreted the patient data. All authors read and approved the final manuscript.

Ethics approval

This study approved by Sabzevar Medical Sciences Branch, Islamic Azad University, Sabzevar, Iran. Ethical approval for this study was gained from the research ethics committee at Islamic Azad University, Sabzevar, Iran. (IR.IAU.S.REC. 1399.007).

Consent to participate

The consent to participate had been taken from each participant in this work. Each participant gave written consent.

Consent for publication

The consent to publish had been taken from each participant in this work. Each participant gave written consent.

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**Tables**

**Table 1 Basic characteristics of the study participants (n = 300)**

| Characteristic                      | Sub category                                           | Mean (SD) or Frequency (%) |
|-------------------------------------|--------------------------------------------------------|----------------------------|
| Sociodemographic Characteristics   |                                                        |                            |
| Age                                 | years                                                  | 65.12 (15.26)              |
| Employment status                   | Employed                                               | 80(26.66%)                 |
|                                    | Non employed or retired                                 | 220(73.34%)                |
| Civil status                        | Married                                                | 200(66.6%)                 |
|                                    | Single                                                 | 70(23.3%)                  |
|                                    | Widowed                                                | 20(6.66%)                  |
|                                    | Divorced                                               | 10(3.33%)                  |
| Living companion                    | With husband and children                              | 240(80%)                   |
|                                    | With Husband or Children                                | 40(13.33%)                 |
|                                    | Alone or living with others                            | 20(6.67%)                  |
| Education status                    | Primary education                                       | 180(60%)                   |
|                                    | Secondary education                                    | 70(23.33%)                 |
|                                    | Upper secondary education, degree or diploma            | 50(16.66%)                 |
| Monthly income(Toman)               | < 1000000 Toman                                         | 40(13.33%)                 |
|                                    | 1000000–2000000 Toman                                  | 170(56.67%)                |
|                                    | 2000000–5000000 Toman                                  | 80(26.67%)                 |
|                                    | > 50000000 Toman                                       | 10(3.33%)                  |
| HPLPII scores                       | Health Responsibility                                   | 18.10 (5.83)               |
|                                    | Nutrition                                              | 18.10 (4.91)               |
|                                    | Physical Activity                                       | 11.40 (4.25)               |
|                                    | Stress Management                                       | 17.19 (4.01)               |
|                                    | Spiritual Growth                                        | 21.42 (5.87)               |
|                                    | Interpersonal Relations                                 | 19.23 (4.34)               |
|                                    | Overall HPLPII score                                    | 87.34 (26.61)              |
|                                    | SSQ-S Subscale                                         | 31.52 (6.47)               |
|                                    | social support network                                  |                            |
|                                    | perceived satisfaction from social support network      | 34.92 (5.28)               |
Table 2. The Relationship Between HPLP II and SSQ-S Subscales Scores for women with Cancer

| Health-Promoting Lifestyle Profile II | SSQ-S Subscale Scores for women with Cancer                                           |
|--------------------------------------|----------------------------------------------------------------------------------------|
|                                      | social support network | perceived satisfaction from social support network                                    |
| Total Score                          | (118.92±28.34)          | r=0.62 p=0.001                                                                         |
| Health responsibility                | (22.57±3.82)             | r=0.71 p=0.001                                                                         |
| Physical activity                    | (18.23±3.89)             | r=0.60 p=0.032                                                                         |
| Nutrition                            | (17.46±3.82)             | r=0.72 p=0.001                                                                         |
| Spiritual growth                     | (24.24±4.63)             | r=0.61 p=0.003                                                                         |
| Interpersonal relations              | (21.60±4.46)             | r=0.70 p=0.001                                                                         |
| Stress management                    | (18.71±2.84)             | r=0.64 p=0.001                                                                         |