

# A COMPARISON OF BURNOUT AND JOB SATISFACTION AMONG CANCER NURSES IN ONCOLOGY, HEMATOLOGY AND PALLIATIVE CARE CLINICS

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received: 10.6.2020;

revised: 20.8.2020;

accepted: 23.9.2020

## SUMMARY

**Background:** Increased burnout level and decreased job satisfaction in oncology nurses negatively affect the quality of life of the employees and impair the quality of nursing care, services to be provided.

**Subjects and methods:** The aim of this study was to determine levels and to compare of burnout and job satisfaction among cancer nurses in oncology, hematology and palliative care clinics. The research was conducted between July 2019-December 2019 in oncology, hematology and palliative care clinics in three different public training and research hospitals. Each nurse completed a Sociodemographic Data Form, the Minnesota Job Satisfaction Scale and the Maslach Burnout Scale.

**Results:** Nurses were working for averagely 50.81±7.59 hours per week and averagely 200.72±29.09 hours per month. Mean weekly shift number of the nurses was 9.49±4.43. There was a statistically significant and negative correlation between the emotional exhaustion subscale scores of the nurses included in the study and their internal satisfaction scores external satisfaction scores and total satisfaction scores ( $p<0.001$ ). There was a statistically significant and negative correlation between the nurses' Depersonalisation subscale scores and internal satisfaction scores, external satisfaction scores and total satisfaction scores ( $p<0.001$ ). A statistically significant and positive correlation was found between the nurses' personal accomplishment subscale scores and internal satisfaction scores, external satisfaction scores and total satisfaction scores ( $p<0.001$ ).

**Conclusion:** Nurses in palliative care clinics had the highest emotional exhaustion. Also there is a significant correlation between the job satisfaction and burnout levels of nurses working in hematology, oncology and palliative care clinics providing care to cancer patients. There is a significant correlation between the job satisfaction and burnout levels of nurses working in hematology, oncology and palliative care clinics providing care to cancer patients.

**Key words:** burnout - job satisfaction - cancer nurses - comparison burnout - oncology

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## INTRODUCTION

Nurses' job satisfaction and burnout level are two important concepts affecting the employee workplace satisfaction, productivity and the quality of nursing care given to patients (Zhang et al. 2014).

Job satisfaction is the satisfaction of the employee from his/her own job and positive emotional state they reaches as a result of evaluating himself-herself and them job. It the work-related attitudes of the working individuals indicate many behaviours and emotions such as the things they hold psychologically and how they feel in the workplace (Chen et al. 2019).

The term of burnout was first described by Herbert Freudenberger as "failure, exhaustion, reduction of energy and power or exhaustion in the internal resources of the individuals as a result of unsatisfied requests". Burnout syndrome is experienced by people working in people-oriented jobs such as health, education in particular. Although today's heavy working and life conditions affect all people, especially healthcare professionals are among the riskiest job groups in terms of burnout syndrome (Akman et al. 2016).

When the studies conducted to determine the burnout status among healthcare professionals are examined, burnout is seen to be more intense among nurses (Russell 2016, Tuna & Baykal 2017). The studies have shown that factors such as excessive patient circulation in hospital settings, insufficient material, long working hours, low number of employees, work stress, sufficient number of day offs, problems experienced in the team and sleep disorder affect the work satisfaction of nurses (Ulrich et al. 2006, Akman et al. 2016, Vermeir et al. 2018). Increased burnout level and decreased job satisfaction in healthcare professionals negatively affect the quality of life of the employees and impair the quality of nursing care and services (Akman et al. 2016, Russell 2016, Tuna & Baykal 2017).

Nurses working in hematology, oncology and palliative care services work with the patients in terminal period who suffer from severe pain and their family within a wide period of time and face deaths more frequently compared to the other healthcare professionals. This status negatively affects therapeutic approaches of the nurses to the patients with pain in terminal period

and their families and causes them to have emotional and physical difficulties (Saifan Al Zoubi et al. 2019). Since job dissatisfaction in the individuals having physical, mental and social difficulties in their work life negatively affects physical and mental health, it may affect general life satisfaction negatively (Yust-Katz et al. 2019).

When the studies have been examined (Ulrich et al. 2006, Akman et al. 2016, Russell 2016, Tuna & Baykal 2017, Vermeir et al. 2018), it has been found that there are studies on job satisfaction and burnout level of nurses working in emergency departments and intensive care units and paediatric nurses but there is no study examining both the job satisfaction and burnout levels of palliative care, hematology and oncology nurses exposed to heavy workload and stress. The aim of this study was to determine levels and to compare of burnout and job satisfaction among cancer nurses in oncology, hematology and palliative care clinics.

## SUBJECTS AND METHODS

### Study Design and participants

This study used a correlational cross-sectional and descriptives design. The research was conducted between July 2019 and December 2019 in hematology, oncology clinics and palliative care units in three different hospitals. The research setting comprised of three different hospitals in Turkey and nine clinics. We calculated sample size using G. Power Analysis. Assuming a significance level ( $\alpha$ ) of 0.05 statistical power ( $1-\beta$ ) of 0.80, we sought to include 129 participants in each group (Sekol & Kim 2014, Maricuțoiu Sava & Butta 2016).

A total of 228 nurses were eligible for the study in the three hospitals. Data were collected from 153 nurses who had worked at least three month in hematology, oncology clinics and palliative care units. The study was completed with for a response rate of 67.1%.

### Instruments

The data were collected using Sociodemographic Form, Maslach Burnout Inventory and Minnesota Satisfaction Scale.

#### *The Sociodemographic Form*

In the form prepared by the researchers upon literature review, there are a total of 17 questions containing data about nurses' personal characteristics and properties of the clinic they are working.

#### *Minnesota Job Satisfaction Scale*

Minnesota Satisfaction Scale (MSS) was developed by Weiss et al. Turkish version was tested by Baycan (1985). The MSS scale includes 20 items. The MSS has General Satisfaction, Internal Satisfaction, and External Satisfaction three subscales. MSS scores are

achieved by dividing the sum of the scores obtained from all articles by 20, which yields a general satisfaction score. A score reflecting neutral satisfaction is 3 on a Likert scale of 1-5. If the score obtained from the scale is lower than 3, job satisfaction is evaluated as low; and as high if the score is higher than 3. The highest score is 100 that can be obtained from the scale is the lowest score 20. Approaching the scores to 20 indicates that the level of satisfaction decreases, and approaching to 100 indicates that the level of satisfaction increases.

#### *Maslach Burnout Inventory*

Maslach Burnout Inventory (MBI) was developed (Maslach & Jackson 1981). Turkish version tests were conducted by Cam (Cam 1991). The inventory has three sub-dimensions Emotional Burnout, Desensitization, and Personal Accomplishment, 5-point Likert type scale with 22 items. Personal accomplishment was defined as a sense of accomplishment and competence in the workplace. Emotional burnout was defined as the experience of overload or exhaustion due to one's job or profession. Depersonalisation was defined as the attitude of indifference towards people who are served. Only the scores obtained from personal accomplishment subscale are calculated by reversal. The high emotional exhaustion and depersonalization score and low personal accomplishment score indicate that burnout is at a high level (Cam 1991).

### Data collection and data analysis

Researchers visited nurses in the hospitals between July 2019 and December 2019. Researchers after informing participants about the study, gave the forms to those who wanted to participate in the research and collected the completed forms about a week later.

The data were analyzed using the SPSS (Statistical Package for Social Sciences) 23 program. Descriptive statistics were calculated for all variables. In order to reveal the differences between the mean scores of continuous variables, Mann-Whitney U, Kruskal Wallis Test (non-parametric tests) were used for data that were not normally distributed. Correlation analysis was used to determine the correlation between nurses' age, professional experience and MSS scores.

### Ethical considerations

In order to conduct the study, written ethics committee approval (04/07/2019-E.3587) from the Ethics Committee in Istanbul Sabahattin Zaim University and the institutional permission from the hospitals where the study was conducted were obtained. The nurses forming the sample of the study were informed about the aim and period of the study and the expectations from them, their written consents were obtained in accordance with the volunteering principle.

## RESULTS

Most of the nurses participating in the study were female (75.2%), Undergraduate (56.9%), Service Nurse (89.5%) and were working in the Oncology Clinic (70.6%) (Table 1). The mean age of the nurses was 26.09±4.94. While total mean working duration of the nurses was 5.23±4.12 years, the working duration in their clinic was 3.93±3.12 years. Nurses were working

for averagely 50.81±7.59 hours per week and averagely 200.72±29.09 hours per month. Mean weekly shift number of the nurses was 9.49±4.43.

It was found that nurses' emotional exhaustion subscale score of Maslach Burnout Inventory was 28.36±6.06, depersonalisation subscale score was 12.18±4.53, and personal accomplishment subscale score was 29.58±5.23 (Table 2).

From Minnesota Satisfaction Scale subscales, the mean score of internal satisfaction subscale was found as 2.94±0.83; the mean score of external satisfaction subscale was 2.60±0.86 and the mean score of overall satisfaction was found as 2.81±0.81 (Table 2).

When the factors affecting the burnout scores of the nurses were examined, a statistically significant difference was found between the nurses' perception of their interpersonal relationships ( $p=0.001$ ), their unit ( $p<0.001$ ) and satisfaction with their unit ( $p=0.007$ ) and emotional exhaustion scores. A statistically significant difference was found between the units of nurses and depersonalisation scores ( $p<0.001$ ). A statistically significant difference was found between the unit of the nurses ( $p<0.001$ ) and their satisfaction with these units ( $p=0.007$ ) and their personal accomplishment scores (Table 3).

No statistically significant difference was found between the nurses' mean age, duration of professional experience, working duration in their current clinics, monthly working hours and number of monthly shifts and emotional exhaustion, depersonalisation, and personal accomplishment subscale scores ( $p<0.05$ ) (Table 4).

There was a statistically significant and negative correlation between the emotional exhaustion subscale scores of the nurses included in the study and their internal satisfaction scores ( $r=-0.630$ ;  $p<0.001$ ), external satisfaction scores ( $r=-0.496$ ;  $p<0.001$ ), and total satisfaction scores ( $r=-0.596$ ;  $p<0.001$ ) (Table 4).

There was a statistically significant and negative correlation between the nurses' Depersonalisation subscale scores and internal satisfaction scores ( $r=-0.471$ ;  $p<0.001$ ), external satisfaction scores ( $r=-0.315$ ;  $p<0.001$ ), and total satisfaction scores ( $r=-0.422$ ;  $p<0.001$ ) (Table 4).

A statistically significant and positive correlation was found between the nurses' personal accomplishment subscale scores and internal satisfaction scores ( $r=0.473$ ;  $p<0.001$ ), external satisfaction scores ( $r=0.440$ ;  $p<0.001$ ) and total satisfaction scores ( $r=0.477$ ;  $p<0.001$ ) (Table 4).

**Table 1.** Demographic and clinical characteristics

|   | n   | %    |
|---|-----|------|
| Gender                                    |     |      |
| Female                                    | 115 | 75.2 |
| Male                                      | 38  | 24.8 |
| Marital Status                            |     |      |
| Married                                   | 29  | 19.0 |
| Single                                    | 124 | 81.0 |
| Education Status                          |     |      |
| Vocational School of Health               | 35  | 22.9 |
| Associate                                 | 16  | 10.5 |
| Undergraduate                             | 87  | 56.9 |
| Graduate                                  | 15  | 9.8  |
| Position                                  |     |      |
| Responsible Nurse                         | 16  | 10.5 |
| Service Nurse                             | 137 | 89.5 |
| Unit                                      |     |      |
| Hematology Clinic                         | 24  | 15.7 |
| Oncology Clinic                           | 108 | 70.6 |
| Palliative Care Clinic                    | 21  | 13.7 |
| Preferring the unit                       |     |      |
| Own Preference                            | 70  | 45.8 |
| Institution Placement                     | 83  | 54.2 |
| Satisfaction from the Unit                |     |      |
| Yes                                       | 119 | 77.8 |
| No  | 34  | 22.2 |
| Own Interpersonal Relationship Perception |     |      |
| Good                                      | 78  | 51.0 |
| Moderate                                  | 72  | 47.1 |
| Bad                                       | 3   | 2.0  |
| Economic status                           |     |      |
| Income more than expenses                 | 23  | 15.0 |
| Income equal to expenses                  | 93  | 60.8 |
| Income less than expenses                 | 37  | 24.2 |
| Status of Having a Child                  |     |      |
| Yes                                       | 15  | 9.8  |
| No  | 138 | 90.2 |

**Table 2.** Nurses' scores from Maslach Burnout Inventory and Minnesota Satisfaction Scale

|                              | Min (min*) | Max (max**) | Mean  | Standard Deviation (SD) |
|------------------------------|------------|-------------|-------|-------------------------|
| Maslach Burnout Inventory    |            |             |       |                         |
| Emotional Exhaustion         | 17         | 45          | 28.36 | 6.06                    |
| Depersonalisation            | 5          | 23          | 12.18 | 4.53                    |
| Personal Accomplishment      | 16         | 40          | 29.58 | 5.23                    |
| Minnesota Satisfaction Scale |            |             |       |                         |
| Internal Satisfaction        | 1.00       | 4.83        | 2.94  | 0.83                    |
| External Satisfaction        | 1.00       | 5.00        | 2.60  | 0.86                    |
| Overall Satisfaction         | 1.05       | 4.90        | 2.81  | 0.81                    |

\*Min score to be obtained from the scale; \*\* Max score to be obtained from the scale

**Table 3.** Burnout scores of nurses according to their personal characteristics

|   | Emotional Exhaustion |        | Depersonalisation |        | Personal Accomplishment |        |
|---|----------------------|--------|-------------------|--------|-------------------------|--------|
|   | X±SD                 | p      | X±SD              | p      | X±SD                    | p      |
| Perception of Interpersonal Relationships |                      |        |                   |        |                         |        |
| Good (n=78)                               | 26.65±5.76           |        | 11.68±4.72        |        | 30.06±5.36              |        |
| Moderate (n=72)                           | 29.85±5.68           | 0.001* | 12.61±4.22        | 0.275  | 29.14±5.16              | 0.420  |
| Bad (n=3)                                 | 36.33±9.01           |        | 14.33±6.80        |        | 28.00±2.64              |        |
| Unit                                      |                      |        |                   |        |                         |        |
| Hematology Clinic (n=24)                  | 23.54±5.03           |        | 8.91±4.29         |        | 33.25±5.91              |        |
| Oncology Clinic (n=108)                   | 28.92±5.48           | 0.000* | 12.80±4.30        | 0.000* | 28.75±4.92              | 0.000* |
| Palliative Care Clinic (n=21)             | 31.09±7.15           |        | 12.76±4.54        |        | 29.57±4.19              |        |
| Preferring the current unit               |                      |        |                   |        |                         |        |
| Own Preference (n=70)                     | 28.68±6.49           | 0.560  | 12.33±4.15        | 0.704  | 30.17±4.80              | 0.206  |
| Institution Placement (n=83)              | 28.09±5.70           |        | 12.04±4.86        |        | 29.08±5.55              |        |
| Satisfaction from the Unit                |                      |        |                   |        |                         |        |
| Yes (n=119)                               | 27.67±6.03           |        | 12.05±4.64        |        | 30.17±5.28              |        |
| No (n=34)                                 | 30.90±5.57           | 0.007* | 12.65±4.13        | 0.505  | 27.40±4.47              | 0.007* |
| Status of having children                 |                      |        |                   |        |                         |        |
| Yes (n=15)                                | 26.00±5.94           | 0.120  | 10.93±4.33        | 0.251  | 30.26±5.21              | 0.585  |
| No (n=138)                                | 28.62±6.04           |        | 12.31±4.55        |        | 29.51±5.24              |        |

<sup>1</sup>Kruskal Wallis (KW); <sup>2</sup> t test; <sup>3</sup>Mann-Whitney U test (Z); \* p<0.05; SD - Standard deviation

**Table 4.** The correlation between Maslach Burnout Inventory and Minnesota Satisfaction Scale Scores of the nurses

|                                 | Emotional Exhaustion r/p |   | Maslach Burnout Inventory |   | Personal Accomplishment r/p |   |
|---------------------------------|--------------------------|---|---------------------------|---|-----------------------------|---|
|                                 | r                        | p | r                         | p | r                           | p |
| Age                             | -0.007/ 0.932            |   |                           |   |                             |   |
| Professional Experience         | -0.119/ 0.146            |   |                           |   |                             |   |
| Working Duration in this Clinic | -0.053/ 0.518            |   |                           |   |                             |   |
| Monthly Working Hours           | 0.060/ 0.467             |   |                           |   |                             |   |
| Monthly Number of Shifts        | 0.001/ 0.988             |   |                           |   |                             |   |
| Minnesota Satisfaction Scale    |                          |   |                           |   |                             |   |
| Internal Satisfaction           | -0.630/ 0.000*           |   |                           |   |                             |   |
| External Satisfaction           | -0.496/ 0.000*           |   |                           |   |                             |   |
| Total score                     | -0.596/ 0.000*           |   |                           |   |                             |   |

Correlation Analysis (r) was used; \* p<0.05

## DISCUSSION

In this study conducted to determine the job satisfaction and burnout levels of the haematology, oncology and palliative care nurses and the influencing factors, it was determined that the nurses who perceived interpersonal relationships as bad had high emotional exhaustion scores. As stated in a study conducted by Taormina and Law, since job training can significantly affect the institutional understanding of employees, coworkers' support and future perspectives, burnout can decrease as interpersonal communication and relationships improved (Taormina & Law 2000, Hu et al. 2015) coping and management skills of nurses with good interpersonal relations and communication develop, decrease work stress, they become competent in solving problems and thus their job satisfaction increases (Ünal et al. 2001, Consiglio et al. 2014). In this context, it was an expected result that nurses who perceived interpersonal relationships as bad have high emotional exhaustion scores.

Another important result of the study was that nurses working in palliative care had higher emotional exhaustion scores than hematology and oncology nurses and depersonalisation subscale scores were higher in oncology nurses. In addition, personal accomplishment of hematology nurses was higher than other clinics. The studies have reported that burnout increases as the care burden increases (Widmer 2002, Taşkın Egici et al. 2019). It is an expected result that nurses working in the unit, where the care burden is the highest such as palliative care, are most likely to experience emotional exhaustion. In addition, the fact that the oncology and palliative care nurses provide very long-term care to the patients receiving treatment, the care outcomes cannot be observed in nurses in a short time, and patients die causes frustration and may lead them to feel personal failure or feeling of being useless (Sherman et al. 2006). This can be asserted to be related with the failure feeling of palliative care and oncology nurses.

In the study, it was determined that those who were not satisfied with the clinics they worked had higher emotional exhaustions compared to those who were satisfied and their personal accomplishment was also low. Emotional exhaustion is the most important component of burnout status. Work stress felt by the employees who are not satisfied with their work life may causes discomfort and energy loss and this may result in emotional burnout (Gan et al. 2019). In other studies conducted with healthcare professionals, emotional burnout scores of those who were not satisfied with their work life were found to be high (Akman et al. 2016, Baldonado-Mosteiro et al. 2019; Bany Hamdanveta et al. 2019).

It was determined in the study that the burnout decreased as the job satisfaction increased. In addition, it was concluded that the personal accomplishment

increased with increasing job satisfaction, which supported this result. In the studies, it was concluded that low job satisfaction in doctor and nurses increased emotional exhaustion and depersonalisation level (Ebrinc et al. 2002, Kavlu & Pinar 2009, Akman et al. 2016). In their study, Ünal et al. found that emotional exhaustion level decreased as the job satisfaction increased (Ünal et al. 2001). In addition, low job satisfaction of nurses causes burnout and negatively affects continuity of patient care, patient satisfaction and in-team cooperation (Buerhaus et al. 2009; Silva et al. 2017). Therefore, being satisfied with the job reduces the burnout level. The positive correlation between the job satisfaction scores and personal accomplishment scores is interpreted as the fact that as the person is satisfied with his/her job, his/her overall life satisfaction would also increase (Barrett & Yates 2002, Toh et al. 2012). In a meta-analysis study, it was stated that job dissatisfaction of an individual affected all aspects of life and job dissatisfaction had strong correlations with burnout and life satisfaction (Fragher 2005). In the same study, it was also determined that the quality of life and job satisfaction decreased with increasing emotional exhaustion and depersonalisation and the satisfaction from the job and quality of life increased as the personal accomplishment increased. It is known that there is a positive significant correlation between quality of life and job satisfaction (Kavlu & Pinar 2009). In two different studies, it was determined that oncology nurses experienced burnout and had low job satisfaction since they witnessed to the pain of their patients for a long time compared to their colleagues working in different care settings (Delvaux et al. 2004, Vaezi et al. 2016). It is reported in the studies conducted on the nurses working in oncology units that nurses experienced high level of burnout, felt insufficient in managing job stress and providing psychological care to their patients but their awareness increased about job satisfaction, clinical skills and priorities of life (Guveli et al. 2015, Kamisli et al. 2017). These results indicate that oncology nurses need special knowledge and equipment to meet the physiological, social and psychological needs of patients.

This study was conducted in a big city and three hospitals. Study results may not be generalized to all oncology, hematology and palliative care nurses.

## CONCLUSION

According to the results of the study, there is a significant correlation between the job satisfaction and burnout levels of nurses working in hematology, oncology and palliative care clinics providing care to cancer patients. It is important to take measures for increasing job satisfaction of nurses working in these units and plan correctly the number of patients. In addition, burnout levels of nurses who are happy with

the clinic they are working are lower. Therefore, it may be necessary to make correct work planning and improve conditions for the nurses who are dissatisfied with working especially in these clinics with high care burden and encountering deaths frequently.

### Acknowledgements:

The authors acknowledge all the participants who helped providing data to this study.

**Conflict of interest:** None to declare.

### Contribution of individual authors:

Study conception and design: Dilek Yıldırım.

Data collection, data analysis, study supervision, manuscript writing and critical revisions for important intellectual content: Dilek Yıldırım & Vildan Kocatepe.

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