Professional Quality of Life among Oncology Nurses at Turkish Palestinian Friendship Hospital in Gaza Strip

Tareq Khattab¹, Yousef Aljeesh²

¹Shohadaa Al Aqsa hospital, Dair Al Balah, Gaza, Palestine; tt.aa.kh12@gmail.com (Corresponding Author)
²Islamic University of Gaza, Remal, Gaza, Palestine

ABSTRACT

Incidence of cancer in Palestine increased considerably in the last five years. The aim of this study was to identify the positive and negative aspects of professional quality of life among nurses at the Turkish-Palestinian Friendship Hospital in the Gaza Strip, as well as to look into the relationship between sociodemographic factors and professional quality of life among nurses. A descriptive cross-sectional design was used to achieve the aims of the study. The researchers used a valid and reliable International Arabic and English Version of Professional Quality of Life Scale (ProQoL), version five to collect data from 74 nurses who participated in the study with a response rate of 84%. This international instrument includes three domains which are compassion satisfaction, burnout, and secondary traumatic stress to measure professional quality of life. The results reveals that the participants had high levels of compassion satisfaction (M=3.90), moderate level of burnout (M=3.2784), and moderate level of secondary traumatic stress (M=3.0027). There is a statistically significant relationship between compassion satisfaction and age group in favor for nurses more than 40 years (F=3.406, p=0.039). Also, there is a significant relationship between compassion satisfaction and participants who received oncology education (t=2.297, p=0.025). In addition, there is a significant relationship between age group "31-40" years and secondary traumatic stress in comparison with other groups (F=4.234, p=0.018). Furthermore, there is statistically significant relationship between secondary traumatic stress and moderate level of income (F= 6.057, p= 0.004). Also, the study showed that there is a significant relationship between moderate level of income and burnout (F=7.497, p=0.001). Conclusion: Based on these findings, the researchers recommended that the stakeholders should work on developing strategic plan to improve professional quality of life among nurses.

Keywords: Professional quality of life; oncology nursing; compassion fatigue; compassion satisfaction; burnout; secondary traumatic stress

INTRODUCTION

One of the main causes of death in the world is cancer, accounting for nearly 10 million deaths in 2020. Every year, about 400,000 children are diagnosed with cancer (WHO, 2022). In the Gaza Strip, cancer is one of the most common causes of death and morbidity. In 2021, the mortality rate reached 10.8% of the overall number of deaths (Ministry of Health, 2022). Health workers have an important role in improving the quality of health services to the community (Nurjanah, Carolin, & Lail, 2022). Healthcare professionals are committed to cancer treatment and prevention using current developments in medical technology, while cancer incidence rates continue to rise(Jang, Kim, & Kim, 2016) Burnout in today's cancer nursing workforce is a significant problem requiring urgent attention(Gribben & Semple, 2021).

As patients face serious illness, nurses spend more time with them and their families than any other health worker. Nurses have an important role in palliative care, and the evidence supports nurses working as members of palliative care consultation teams or as independent practitioners (Schroeder & Lorenz, 2018). assessment, supportive and therapeutic communication, management of cancer symptoms and treatment-associated complications, palliative and long-term care, education, healthcare system decision-making and advocacy, professional practice, and leadership are among the responsibilities and standards of oncology nurses (Yılmaz & Üstün, 2019). However, caring for patients who have cancer may be incredibly stressful since the majority of cancers are life-threatening, require advanced
treatment and decision-making, are associated with loss, and nurses feel like failures and frustrated when cancer can't be managed (Guo & Zheng, 2019).

Health workers who work at the forefront are vulnerable to psychosocial stress and belong to a high-risk group (Asmaningrum, Manurung, & Kurniawan, 2021). Oncology nurses, who treat cancer patients on a daily basis, must be emotionally strong in the face of terrible and hopeless situations. Caring for cancer patients throughout their treatment journey, from diagnosis through survival or death, entails compassion (M. Algamdi, 2022). Nurses may have noticed emotional compression as having both a negative and positive consequence on professional quality of life. A professional quality of life is the satisfaction one has from their work as a helper. The good and bad features of one's employment have an impact on one's professional quality of life. (compassion satisfaction) refers to positive feelings about people's ability to help and also the negative (compassion fatigue) (Beth Hudnall Stamm, 2010).

Recently, all oncology services are transferred to Turkish-Palestinian Friendship Hospital, so the hospital is considered the core center that covers all of the governorates in Gaza Strip (Ministry of Health, 2022). The aim of the present study is to identify the positive and negative aspects of professional quality of life among nurses at the Turkish Palestinian Friendship Hospital in Gaza Strip, as well as to look into the relationship between sociodemographic factors and professional quality of life among nurses at the Turkish Palestinian Friendship Hospital in Gaza Strip.

METHOD

Study Design
The study was conducted using descriptive cross-sectional designs to assess the professional quality of life among oncology nurses at Turkish-Palestinian Friendship Hospital in Gaza Strip.

Setting and Study Population
The study was carried out in Gaza Strip at the Turkish-Palestinian Friendship Hospital. According to the MOH annual report 2021, 88 nurses work at the Turkish Palestinian Friendship Hospital. The total population consists of every nurse at the Turkish-Palestinian Friendship Hospital The researcher used a census sample consisting of 74 out of 88 oncology nurses who participated in this study with a response rate of 84%.

Data Collection
After receiving ethical and administrative approval, the data were collected using a structured self-administered questionnaire, with each participant receiving a study questionnaire from June 1 to June 20, 2022. The participants were given a complete explanation, which included the fact that the information acquired from this study would be utilized for no other reason than the present study, and that all information provided by the participants would be kept private throughout the study.

Measurements
Professional quality of life was assessed using the Arabic and English versions of the Professional Quality of Life Scale (ProQoL), version 5, which were submitted from www.ProQOL.org. It comprises of 30 items in which participants are asked to rate how frequently they experienced various events in the past 30 days on a five-point Likert scale. It evaluates two major compassion dimensions: compassion satisfaction (a positive dimension) and compassion fatigue (a negative dimension) (Beth Hudnall Stamm, 2009). Professional quality of life has two components: positive (compassion satisfaction) and negative (compassion fatigue). Compassion fatigue is divided into two components. The first section identifies symptoms of burnout, such as exhaustion, frustration, anger, and sadness. Secondary traumatic stress is an unpleasant emotion caused by fear and workplace trauma. Some workplace trauma is direct (primary). Work-related trauma can also be a mix of primary and secondary trauma (Beth Hudnall Stamm, 2010). Cronbach’s alpha of the internal reliability of compassion satisfaction in this version was 0.88, 0.75 for burnout, and 0.81 for secondary traumatic stress (Beth Hudnall Stamm, 2010). Numerous studies have found that version 5 has strong validity and reliability, with a high Cronbach’s alpha. ProQoL subscales (α scores ranging from 0.73 to 0.85) in study conducted by (Di Tella et al., 2020) on the other study conducted by (Jang et al., 2016) Cronbach’s a for compassion satisfaction was estimated at 0.90, Cronbach’s a of 0.81 for burnout and 0.80 for secondary traumatic stress. The Cronbach’s coefficient alpha was calculated for the three fields in the range of 0.991 to 0.954. This range is considered high; the result ensures the reliability of the professional quality of life.

Data Analysis
The data were analyzed and answered the questions and hypotheses of the study to achieve the objectives of this study, which clarifies the professional quality of life among nurses in the Turkish-Palestinian friendship hospital. To achieve the goal of the research, the researcher used the Statistical Package for the Social Sciences (SPSS) for data processing and analysis. Descriptive statistics (frequency, means, and standard deviations) were calculated for sample
characteristics. An independent T test was used to compare sociodemographic (gender, marital status, and receiving oncology education) with compassion satisfaction, burnout, and secondary traumatic stress. One-way ANOVA test with post-hoc testing using the Scheffe test for multiple comparisons to compare sociodemographic (age and level of income) with compassion satisfaction, burnout, and secondary traumatic stress.

**Ethical Approval**

The Islamic University provided ethical approval for the study. The Ministry of Health granted yet another administrative approval. The Turkish-Palestinian Friendship Hospital provided its permission for the study. A cover letter stating that participation is voluntary and that the right to refuse is protected is included to ensure participant rights.

**RESULT**

Table 1. Distribution of The Study Sample Members According to The Characteristics of The Study Sample

| Variables                        | Frequencies | Percent |
|----------------------------------|-------------|---------|
| **Gender**                       |             |         |
| Male                             | 45          | 60.8    |
| Female                           | 29          | 39.2    |
| **Marital Status**               |             |         |
| Single                           | 11          | 14.9    |
| Married                          | 63          | 85.1    |
| **Ages**                         |             |         |
| 20-30 Yrs.                       | 23          | 31.1    |
| 31-40 Yrs.                       | 41          | 55.4    |
| More Than 40 Yrs.                | 10          | 13.5    |
| **Period in Oncology**           |             |         |
| Below One Year                   | 27          | 36.5    |
| 1-5 Years                        | 14          | 18.9    |
| More Than 5 Years                | 33          | 44.6    |
| **Place of Residence**           |             |         |
| Rafah                            | 13          | 17.6    |
| Khanyuonis                       | 12          | 16.2    |
| Middle Area                      | 34          | 45.9    |
| Gaza                             | 13          | 17.6    |
| North Gaza                       | 2           | 2.7     |
| **Qualification**                |             |         |
| Diploma                          | 9           | 12.2    |
| Bachelors                        | 57          | 77.0    |
| Master                           | 8           | 10.8    |
| **Receiving Oncology Education** |             |         |
| Yes                              | 44          | 59.5    |
| No                               | 30          | 40.5    |
| **Level of Income**              |             |         |
| Mild                             | 28          | 37.8    |
| Moderate                         | 41          | 55.4    |
| High                             | 5           | 6.8     |

The study sample consisted of 74 nurses from the Turkish-Palestinian Friendship hospital. The study sample's demographic characteristics were distributed according to its variables (gender, marital status, age, place of residence, qualification, years of experience in oncology, receiving oncology education, and level of income). The table 1 shows the percent and frequency of demographic data. The percent of males was equal (60.8%) and that of females was equal (39.2%). That means most of the participants were males. As for the marital status, (85.1%) of the study sample members are married, while (14.9%) of the study sample is single. Most of the participants in this study were married. No one of the participants is divorced or widowed. The table also shows the age. (31.1%) of the study sample members are
"20-30 years old," and (55.4%) of the study sample members are between "31-40 years old," while (13.5%) of the study sample members are aged "more than 40 years". Most of the study samples are aged "31 to 40 years". The distribution of the sample in this study was according to the place of residence, as (45.9%) of the study sample was from the middle area, while (17.6%) of the sample members were from Rafah, and (16.2%) of the study sample was from Khanyuonis, while the sample distribution according to Gaza was (17.6%). The table shows that (36.5%) of the sample members have less than one year of experience in oncology. The table also shows that (18.9%) of the sample members have years of experience ranging from "1 to 5 years", while (44.6%) of the sample members have more than 5 years of work experience in nursing. About qualifications (12.2%) from the sample level of education are "diploma," and (77%) from the participants' level of education are "bachelor," while "6.6%" from the sample level of education is "high education" and (10.8%) from the sample level of education are "master". On the other hand, (59.5%) of the sample were receiving oncology education while (40.5%) didn’t receive oncology education. Finally, the median income levels (55.4%) of participants are moderate levels of income. (55.4%) of participants have a mild level of income, while (6.8%) have a high-income level.

Table 2. Means, Standard Deviations, and the Weight Mean of The Professional Quality of Life

| Domains                        | Means   | Std. Deviation | Weight Mean % | The Professional Quality of Life |
|--------------------------------|---------|----------------|---------------|----------------------------------|
| Compassion Satisfaction        | 3.9068  | 0.86979        | 78.1          | High                             |
| Burnout                        | 3.2784  | 0.60845        | 65.5          | Moderate                         |
| Secondary Traumatic Stress     | 3.0027  | 0.77211        | 60            | Moderate                         |

Table 2. shows the mean, standard deviation, and weight mean for the dimensions of the professional quality of life questioner and the questioner as a whole to know the professional quality of life among nurses in the Turkish-Palestinian Friendship Hospital who are working in the oncology department. The results show that the mean of the compassion satisfaction dimension is (3.9068), with a standard deviation (0.86979), and the weight mean (78.1%). The results show that the mean of the Burnout dimension is (3.2784), with a standard deviation (0.608 45), and a weight mean (65.5%). In the dimension of secondary traumatic stress, the mean was (3.0027), with a standard deviation (0.77211), and a weight mean (60%).

Table 3. Independent Samples Test for Difference in Point of View Up the Relationship Between Compassion Satisfaction, Burnout, And Secondary Traumatic Stress Due to Gender, Marital Status, and Receiving Oncology Education Among Nurses in Turkish Palestinian Friendship Hospital

| Field                        | N   | Mean    | Std. Deviation | T     | p-value |
|------------------------------|-----|---------|----------------|-------|---------|
| Compassion Satisfaction      |     |         |                |       |         |
| Male                         | 45  | 3.8822  | 0.87887        | -0.30 | 0.668   |
| Female                       | 29  | 3.9448  | 0.86956        |       |         |
| Burnout                      |     |         |                |       |         |
| Male                         | 45  | 3.2867  | 0.66695        | 0.145 | 0.204   |
| Female                       | 29  | 3.2655  | 0.51567        |       |         |
| Secondary Traumatic Stress   |     |         |                |       |         |
| Male                         | 45  | 3.0222  | 0.80337        | 0.269 | 0.587   |
| Female                       | 29  | 2.9724  | 0.73382        |       |         |
| Compassion Satisfaction      |     |         |                |       |         |
| Single                       | 11  | 3.6909  | 0.81542        | -0.891| 0.376   |
| Married                      | 63  | 3.9444  | 0.87966        |       |         |
| Burnout                      |     |         |                |       |         |
| Single                       | 11  | 3.2    | 0.54955        | -0.461| 0.647   |
| Married                      | 63  | 3.2921  | 0.62121        |       |         |
| Secondary Traumatic Stress   |     |         |                |       |         |
| Single                       | 11  | 3      | 0.65574        | -0.012| 0.99    |
| Married                      | 63  | 3.0032  | 0.79534        |       |         |
| Compassion Satisfaction      |     |         |                |       |         |
| Yes                          | 44  | 4.0932  | 0.82979        | 2.297*| 0.025*  |
| No                           | 30  | 3.6333  | 0.86795        |       |         |
| Burnout                      |     |         |                |       |         |
| Yes                          | 44  | 3.2932  | 0.61584        | 0.253 | 0.802   |
| No                           | 30  | 3.2567  | 0.60725        |       |         |
| Secondary Traumatic Stress   |     |         |                |       |         |
| Yes                          | 44  | 3.0455  | 0.74847        | 0.574 | 0.568   |
| No                           | 30  | 2.9400  | 0.81435        |       |         |

α* ≤ 0.05
The results are shown in Table 3. The p-value in all domains and general questions is greater than 0.05, and the absolute value of the T test is less than the value of critical value, which is equal to 2.0, indicating that there are no statistical differences between compassion satisfaction, burnout, and secondary traumatic stress due to gender, social status, except who receiving oncology education the p-value 0.025 which is less than 0.05 and T test 2.297 which is greater than critical value which equal to 2.0 indicating to significant relationship between compassion satisfaction and receiving oncology education among nurses in Turkish-Palestinian friendship hospital.

Table 4. One Way ANOVA Test for Difference in Point of View Up to a Relationship Between Compassion Satisfaction, Burnout, and Secondary Traumatic Stress Due to Age, and Level of Income Among Nurses in Turkish Palestinian Friendship Hospital

| The Professional Quality of Life and Age | Sum of Squares | DF | Mean Square | F     | Sig.  |
|-----------------------------------------|----------------|----|-------------|-------|-------|
| Compassion Satisfaction                 |                |    |             |       |       |
| Between Groups                          | 4.834          | 2  | 2.417       | 3.406*| 0.039*|
| Within Groups                           | 50.392         | 71 | 0.710       |       |       |
| Total                                   | 55.227         | 73 |             |       |       |
| Burnout                                 |                |    |             |       |       |
| Between Groups                          | 0.683          | 2  | 0.342       | 0.921 | 0.403 |
| Within Groups                           | 26.342         | 71 | 0.371       |       |       |
| Total                                   | 27.025         | 73 |             |       |       |
| Secondary Traumatic Stress              |                |    |             |       |       |
| Between Groups                          | 4.638          | 2  | 2.319       | 4.234*| 0.018*|
| Within Groups                           | 38.882         | 71 | 0.548       |       |       |
| Total                                   | 43.519         | 73 |             |       |       |

The one-way ANOVA and the result illustrated in table 4, shows that the p-value is 0.039, which is less than 0.05, and the value of the F test is 3.406, which is greater than the value of the critical value, which equal 3.35. That means there is a significant relationship between compassion satisfaction and age. The p-value is 0.018, which is less than 0.05, and the value of the F test is 4.234, which is greater than the value of the critical value, which equal 3.35. That means there is a significant relationship between secondary traumatic stress and age, p-value equals 0.403, which is greater than 0.05, and the value of the F test equals 0.921, which is less than the value of the critical value, which equals 3.35. That means there is no significant relationship between burnout and age. The one-way ANOVA and the result illustrated in table 4 which shows that the p-value equal 0.670 which is greater than 0.05 and the value of F test equal 0.403 which is less than the value of critical value which equals 3.35, that means there is no significant relationship between compassion satisfaction due to level of income among nurses in Turkish-Palestinian friendship hospital. In other hand the p-value for burnout domain and secondary traumatic domain are less than 0.05 and the value of F test are greater than the value of critical value which equals 3.35, that means there are a significant relationship between burnout domain and secondary traumatic domain due to level of income among nurses in Turkish Palestinian friendship hospital. That means level of income play role in professional quality of life among nurses.
receives a low salary at the beginning of the recruitment period, 37.8% had a mild level. According to the researcher's experience, this category may be a new employment where he
more than other groups
in the Turkish
relationship between feelings as the nurse witnesses the suffering of oncology patients with the inability to provide helping
for treatment outside, including the West Bank, Egypt, Jordan, and Israel. These can result in
resources in Gaza
in reducing oncology nurses
this behavior may be passed on to them.
plans to improve professional quality of care. Additionally, because they will frequently interact with
their experience and productivity in this stage of life, this age group is thought to be capable of leading and developing
more than other groups and consider
dying and professional quality of life among palliative care workers. group age “31
conducted by
compassion satisfaction is substantially related to age (Samson & Shvartzman, 2018)
The mean level of compassion satisfaction was greater among nurses over the age of 45, indicating that
level of income. 55.4% of participants had a moderate level of income, while
the relationship in favor of level of income "moderate level of income", whereas level of income group "moderate level of income "they have burnout, and secondary traumatic more than other groups" mild, and high level of income".

DISCUSSION

Several studies show that professional quality of life differs among oncology nurses, based on a review of previous literature and research data. In this study, participants reported a high level of compassion satisfaction. This is due to the weight mean being equal to (78.1 %) burnout and secondary trauma stress being moderate. (Yu, Jiang, & Shen, 2016) conducted research in China, and the results were published. Higher compassion fatigue and burnout, another study done in Spain (Arimon-Pagés, Torres-Puig-Gros, Fernández-Ortega, & Canela-Soler, 2019). The finding showed low compassion satisfaction, significant burnout, and secondary traumatic stress. The qualitative descriptive study done in Jordan by (Al zoubi, Saifan, Alrimawi, & Aljabery, 2020) indicated that the working environment for oncology nurses is very stressful and demanding, and these nurses suffer several challenges in their work. Previous research disagreed with these findings for several reasons.

For example, the age group "up to 40 years" is 13.5% of participant had more compassion satisfaction than other groups possible that's because the personality has improved coping mechanisms to manage unpleasant feelings. The degree of compassion satisfaction was determined to be adequate in a research of Saudi nursing practitioners.(M. M. Algamdi, 2022) The mean level of compassion satisfaction was greater among nurses over the age of 45, indicating that compassion satisfaction is substantially related to age. These findings are compatible with the current study. A study conducted by (Samson & Shvartzman, 2018) found significantly correlation between level of exposure to death and dying and professional quality of life among palliative care workers. group age "31-40 years have Secondary traumatic more than other groups and consider 55.4% of sample size which This result is considered a dangerous indicator Due to their experience and productivity in this stage of life, this age group is thought to be capable of leading and developing plans to improve professional quality of care. Additionally, because they will frequently interact with other age groups, this behavior may be passed on to them.

A study conducted by (Yilmaz, Üstün, & Günüşen, 2018) reported that this nurse led intervention was successful in reducing oncology nurses compassion fatigue and burnout. Because of restricted treatment options and lack of resources in Gaza Strip according to MOH annual report (Ministry of Health, 2022) 5327 oncology patients were referred for treatment outside, including the West Bank, Egypt, Jordan, and Israel. These can result in an increase in negative feelings as the nurse witnesses the suffering of oncology patients with the inability to provide helping.

The level of income is considered a vital role in the professional quality of life. The study found a significant relationship between the burnout domain and the secondary traumatic domain due to the level of income among nurses in the Turkish-Palestinian friendship hospital. At a moderate level of income, they have burnout, secondary traumatic more than other groups, mild, and a high level of income. 55.4% of participants had a moderate level of income, while 37.8% had a mild level. According to the researcher's experience, this category may be a new employment where he receives a low salary at the beginning of the recruitment period, or he is less than 30 years old and has no years of
experience, in which case he hasn’t faced negative emotional compression. 6.8% of participants have a high level of income. This percentage is considered small compared to the moderate and mild categories which agrees with study (Xie et al., 2021) that says the amount of compassion fatigue is closely associated with income satisfaction, therefore the lower the income levels of the nurses, the greater the level of compassion fatigue.

A study conducted by (Singh-Carlson, Odell, & Reynolds, 2016) found Relevant relationships in all three subscales of secondary traumatic stress, burnout, and compassion satisfaction revealed that the perception of teamwork within the workplace environment was significant. These results highlight the necessity of further research at the Turkish-Palestinian Friendship Hospital. 59.5% of nurses have received oncology education and there is a good signification with compassion satisfaction. These findings force the stakeholders to establish educational programs specific to oncology nurses.

The sample size is small which may be consider as weak point in the study, the study was assesses the demographic characteristics on professional quality of life but there is some factors need further investigation like work environment, resilience and coping strategies, a cross sectional design which affected by time period. A longitudinal study would have been necessary to apply.

CONCLUSION

Based on the findings, compassion satisfaction is high but burnout and secondary traumatic stress are moderate. Hospital administrators should work on developing strategies to improve compassion satisfaction while reducing burnout and secondary traumatic stress. the workplace environment also needs to be investigated further. Empower staff, psychological support and motivation is important to improving professional quality of life.

Empower their staff, motivation, rewarding and provide psychological support consider important factors to maintain compassion satisfaction. In addition, developing the educational programs that targets the oncology nurse.

ACKNOWLEDGEMENTS

We acknowledge the Research and Development Center at Turkish-Palestinian friendship hospital, Authors gratefully acknowledge the 74 nurses’ participants who responded to the study and Islamic university in Gaza strip.

Declaration of Conflicting Interests: The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding: This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

REFERENCES

Al zoubi, A. M., Saifan, A. R., Alrimawi, I., & Aljabery, M. A. (2020). Challenges facing oncology nurses in Jordan: A qualitative study. The International Journal of Health Planning and Management, 35(1), 247–261. https://doi.org/10.1002/HPM.2901
Algamdi, M. (2022). Prevalence of oncology nurses’ compassion satisfaction and compassion fatigue: Systematic review and meta-analysis. Nursing Open, 9(1), 44–56. https://doi.org/10.1002/NOP2.1070
Algamdi, M. M. (2022). The Professional Quality of Life Among Nurses in Saudi Arabia: A Multi-Centre Study. Nursing: Research and Reviews, 12, 29–37. https://doi.org/10.2147/NRR.S333544
Arimon-Pagès, E., Torres-Puig-Gros, J., Fernández-Ortega, P., & Canela-Soler, J. (2019). Emotional impact and compassion fatigue in oncology nurses: Results of a multcentre study. European Journal of Oncology Nursing, 43, 101666. https://doi.org/10.1016/J.EJON.2019.09.007
Asmaningrum, N., Manurung, A. A., & Kurniawan, D. E. (2021). Psychosocial Problems among Nurses in Patient’s Care of COVID-19: A Literature Review. Nursing and Health Sciences Journal (NHSJ), 1(2), 164–172. https://doi.org/10.53713/NHS.V1I2.40
Di Tella, M., Tesio, V., Bertholet, J., Gasnier, A., Gonzalez del Portillo, E., Spalek, M., … Franco, P. (2020). Professional quality of life and burnout among medical physicists working in radiation oncology: The role of alexithymia and empathy. Physics and Imaging in Radiation Oncology, 15(July), 38–43. https://doi.org/10.1016/j.phro.2020.07.001
Gribben, L., & Semple, C. J. (2021). Factors contributing to burnout and work-life balance in adult oncology nursing: An integrative review. European Journal of Oncology Nursing, 50, 101887. https://doi.org/10.1016/J.EJON.2020.101887
Guo, Q., & Zheng, R. (2019). Assessing oncology nurses’ attitudes towards death and the prevalence of burnout: A cross-sectional study. European Journal of Oncology Nursing, 42, 69–75. https://doi.org/10.1016/J.EJON.2019.08.002
Jang, I., Kim, Y., & Kim, K. (2016). Professionalism and professional quality of life for oncology nurses. Journal of Clinical Nursing, 25(19–20), 2835–2845. https://doi.org/10.1111/jocn.13330
Ministry of Health. (2022). Health Annual Report, Palestine 2021. Gaza: PHIC Gaza.
Nurjanah, S., Carolin, B. T., & Lail, N. H. (2022). Factors Related to Women of Childbearing Age (WUS) Participation in Performing a Visual Inspection of Acetic Acid (IVA) Pamulang Health Center in 2022. Nursing and Health Sciences Journal (NH SJ), 2(2), 143–153. https://doi.org/10.53713/NHS.V2I2.102

Samson, T., & Shvartzman, P. (2018). Association between level of exposure to death and dying and professional quality of life among palliative care workers. Palliative & Supportive Care, 16(4), 442–451. https://doi.org/10.1017/S1478951517000487

Schroeder, K., & Lorenz, K. (2018). Nursing and the future of palliative care. Asia-Pacific Journal of Oncology Nursing, 5(1), 4–8. https://doi.org/10.4103/APJON.APJON_43_17

Singh-Carlson, S., Odell, A. P., & Reynolds, G. L. (2016). Hispanic Stress Inventory View project. https://doi.org/10.1188/16.ONF.E161-E169

Stamm, B Hudnall. (2009). The Professional Quality of Life Scale (ProQOL): Compassion Satisfaction. Burnout and Compassion Fatigue/Secondary Trauma Scales. Sidtan Press, 5, 1.

Stamm, Beth Hudnall. (2010). The concise ProQOL manual. In Pocatello, ID: ProQOL org. Retrieved from http://proqol.org/uploads/ProQOL_Concise_2ndEd_12-2010.pdf%0Ahttp://proqol.org/uploads/ProQOL_Concise_2ndEd_12-2010.pdf%0Ahttps://proqol.org/uploads/ProQOLManual.pdf

WHO. (2022). Cancer. Retrieved May 9, 2022, from WHO website: https://www.who.int/news-room/fact-sheets/detail/cancer

Xie, W., Wang, J., Zhang, Y., Zuo, M., Kang, H., Tang, P., … Ma, C. (2021). The levels, prevalence and related factors of compassion fatigue among oncology nurses: a systematic review and meta-analysis. Journal of Clinical Nursing, 30(5–6), 615–632. https://doi.org/10.1111/JOCN.15565

Yilmaz, G., & Üstün, B. (2019). Original Article Sociodemographic and professional factors influencing the professional quality of life and post-traumatic growth of oncology nurses. J Psychiatric Nurs, 10(4), 241–250. https://doi.org/10.14744/phd.2019.43255

Yilmaz, G., Üstün, B., & Günüşen, N. P. (2018). Effect of a nurse-led intervention programme on professional quality of life and post-traumatic growth in oncology nurses. International Journal of Nursing Practice, 24(6), e12687. https://doi.org/10.1111/IJN.12687

Yu, H., Jiang, A., & Shen, J. (2016). Prevalence and predictors of compassion fatigue, burnout and compassion satisfaction among oncology nurses: A cross-sectional survey. International Journal of Nursing Studies, 57, 28–38. https://doi.org/10.1016/J.IJNURSTU.2016.01.012