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**FAMILY FUNCTIONING AND JOB SATISFACTION
AMONG ONCOLOGICAL NURSES**

**Funkcjonowanie rodzinne i satysfakcja z pracy wśród pielęgniarek
onkologicznych**

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A - Koncepcja i projekt badania, B - Gromadzenie i/lub zestawianie danych, C - Analiza i interpretacja danych, D - Napisanie artykułu, E - Krytyczne zrecenzowanie artykułu, F - Zatwierdzenie ostatecznej wersji artykułu

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Abstract (in Polish):

Cel pracy

Rodzina wywiera istotny wpływ na rozwój człowieka. Jej prawidłowe funkcjonowanie jest warunkiem zaspokajania podstawowych potrzeb, także tych mieszczących się w sferze emocjonalnej, takich jak poczucie przynależności, bezpieczeństwa i wsparcia. Rodzina jest istotna w kształtowaniu zjawiska odporności psychicznej. Wyniki współczesnych badań naukowych dowodzą wpływu czynników związanych ze środowiskiem rodzinnym, na szeroko pojęte funkcjonowanie w życiu dorosłym.

Cel: Wyodrębnienie determinantów znacząco wpływających na poziom satysfakcji z pracy w tym funkcjonowania rodzinnego u pielęgniarek onkologicznych.

Material i metody

Badania przeprowadzono w maju 2018 roku w podczas 22. Ogólnopolskiej Konferencji Pielęgniarek Onkologicznych w Białymstoku. Organizatorem konferencji było Polskie Stowarzyszenie Pielęgniarek Onkologicznych. Grupę badaną stanowiło 215 pielęgniarek pracujących w różnych ośrodkach onkologicznych w całej Polsce. Narzędziami badawczymi był: Kwestionariusz Oceny Sytuacji Rodzinnej (Family Apgar) i Minnesocki Kwestionariusz Zadowolenia z Pracy (Minnesota Satisfaction Questionnaire MSQ).

Wyniki

Wyniki: W badanej grupie średnia wartość satysfakcji z pracy wyniosła 67,10. Średnia wartość Family Apgar wyniosła 7,71. Występowała istotna zależność pomiędzy funkcjonowaniem w życiu rodzinnym a poziom satysfakcji z pracy $rHO = 0,30$; $p < 0,001$.

Wnioski

Wnioski: Aspekty pracy, które wykazały znaczny poziom satysfakcji to, możliwość robienia czegoś dobrego dla innych, zadowolenie ze swojego obecnego życia, umiejętności zawodowych swojego przełożonego, stopień ważności wykonywanej pracy. Wraz z lepszym funkcjonowaniem w życiu rodzinnym wzrastał poziom satysfakcji z pracy pielęgniarek onkologicznych.

Abstract (in English):

Aim

The family has a significant impact on the development of every individual. Normal functioning is required to satisfy basic needs, including those of an emotional nature, such as a sense of belonging, safety and support. The family is crucial for the development of the phenomenon of mental immunity. The aim of this study was to identify the determinants that significantly affect job satisfaction including family functioning among oncology nurses.

Material and methods

The study was carried out in May 2018 during the 22nd Polish Conference for Oncology Nurses in Białystok, which was organised by the Polish Oncology Nursing Society. A total of 215 nurses working in different oncology centres around Poland were included in the study. The study method included a diagnostic survey using: the Minnesota Satisfaction Questionnaire MSQ and the Family Situation Assessment Questionnaire, i.e. Family APGAR.

Results

The mean satisfaction level in the studied group was 67.10 points. The mean score in the Family APGAR scale was 7.71. Better family functioning is associated with a higher job satisfaction level ($rHO = 0.30$; $p < 0.001$).

Conclusions

The job aspects which proved to be significantly associated with the satisfaction level include: the possibility of doing something good for others, satisfaction with one's current life, the professional skills of one's superior, and the perceived importance of one's work. Better functioning in family life is associated with improved job satisfaction among oncology nurses.

Keywords (in Polish): jakość życia, satysfakcja z pracy, sytuacja rodzinna.

Keywords (in English): quality of life, job satisfaction, family situation.

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Introduction

Studying job satisfaction among nurses allows the healthcare organisation to efficiently manage nursing resources [1,2]. Professional work is a serious area of human activity, allowing existential and psycho-social needs to be satisfied, yet it may not disorganise other areas of our life [3]. It should create conditions for the multidimensional self-realisation of each unit in the area of family life. The nature of relationships between professional work and extra-professional life is a subject of growing interest. Other authors also indicate the relevance of the family for the protection and improvement of health status. They emphasise the fact that close relationships and a high level of received support neutralise negative emotions, and promote emotional maturity and mental immunity [4,5]. Employee satisfaction is an intricate term. It is defined as the degree to which the employees of a given organisation believe that their needs are consistently satisfied by this organisation [6].

Job satisfaction is the employees' attitude, consisting of three components: cognitive, emotional and behavioural [7,8].

The mission of being a nurse includes helping other people, who are faced with disease, disability and suffering [9]. The great mental and physical burden associated with their job, and economic undervaluation may have a negative impact on the satisfaction level of nurses. This applies not only to job satisfaction, but also to general life satisfaction [10]. Negative emotions, stress and psychological pressure in the workplace undoubtedly impinge on private life [11]. The possibility to participate in professional development programmes or to gain a higher remuneration, and good organisation and communication at work help in overcoming problems associated with the job itself [12].

The family has a significant impact on the development of every individual. Normal functioning is required to satisfy basic needs, including those of an emotional nature, such as a sense of belonging, safety and support. The family is crucial for the development of the phenomenon of mental immunity. The results of current scientific studies prove that factors associated with the family environment have an impact on broadly defined functioning in adult life [4,5]. The family is responsible for developing basic personality traits, values and behavioural patterns. It is a place where an individual learns to express

themselves, and to adequately react to encountered situations, including difficult ones, which leads to emotional stability, reflecting their maturity [5,13].

2. Aim of the study

The aim of this study was to identify the determinants that affect job satisfaction among oncology nurses.

3. Methods

3.1. Design

A cross-sectional survey study design was used.

3.2. Sample and setting

The study was carried out in May 2018 during the 22nd Polish Conference for Oncology Nurses in Białystok. The leading topic of this meeting was “Nursing Care in New Oncology Therapies”. The conference was organised by the Polish Oncology Nursing Society. A total of 215 nurses working in different oncology centres around Poland were included in the study.

3.3. Data collection

The questionnaires were filled in by oncology nurses between May 23rd and May 25th, 2018. The aim of the study and the rules for the protection of the confidentiality of the obtained data were explained to the participants by the study staff. Written, informed consent was obtained from each nurse before being enrolled in the trial. The inclusion criteria were as follows: nurses currently employed in oncology centres, signed informed consent for participation in the study. Each participant was asked to anonymously answer each question according to their own feelings. After being completed, the questionnaires were collected in sealed envelopes. A diagnostic survey method was used and socio-demographic data (education, marital status, place of residence) and data concerning health status (diseases) were collected.

3.4. Questionnaire development

The study method included a diagnostic survey using: the Minnesota Satisfaction Questionnaire MSQ [14] and the Family Situation Assessment Questionnaire, i.e. Family APGAR [15].

Minnesota Satisfaction Questionnaire - Short Form (MSQ - SF)

The Minnesota Satisfaction Questionnaire was designed to measure an employee's satisfaction/dissatisfaction with his or her job. Twenty job properties are assessed, such as:

1. Achievement – some employees feel a great need for success. Job satisfaction may decrease if the employer does not create adequate working conditions enabling the realisation of such a need.
2. Independence – independent task realisation is important for people with a great need for achievement. Such people like to make decisions on their actions all by themselves and frequently make risky decisions, which may prove beneficial for the organisation. Obstruction of their actions increases their frustration.
3. Recognition – the need for recognition and respect is one of the needs of an adult individual and refers to professional life as well. No feedback in the form of praise or financial consideration increases dissatisfaction among employees.

4. Working conditions – this term refers to the physical working conditions which increase job satisfaction such as: healthcare, parking places, company car, different types of integration meetings as well as good lighting in the workplace or air conditioning. Some employers do not take care of such very important factors.

The subjects used a five-point Likert scale to assess each statement of MSQ concerning satisfaction. The respondents assessed 20 statements, reflecting the situation at their workplaces. The score reflects the degree of conformance with each statement (5= strongly agree; 4= agree; 3= neutral; 2= disagree; 1= strongly disagree). The theoretical range of MSQ-SF scores is 20 – 100 points. The higher the total score, the greater the job satisfaction.

Family Situation Assessment Questionnaire – Family APGAR

Family APGAR is a useful tool for the quick assessment of current family functioning. The questionnaire consists of five statements, enabling a qualitative family situation assessment in the following areas: adaptation, partnership, growth, affection and resolve. The answer variants include: “almost always” (2 points), “sometimes” (1 point) and “almost never” (0 points). According to the manual, the following score classification was adopted:

- 0–3 points: score suspecting severe dysfunction in the family system;
- 4–6 points: score suggesting abnormalities within the family system;
- 7–10 points: score indicative of no disturbances in family functioning.

Statistical analysis

All statistical calculations were carried out using the IBM SPSS 23 statistical package and an Excel 2010 spreadsheet. Qualitative variables were presented as numbers and percentages, while quantitative variables were characterised using the arithmetic mean and standard deviations. The Shapiro-Wilk W test was used to check whether the distribution of quantitative variables was normal. The significance of differences between the two groups was tested using the Student t test. The Spearman’s correlation test was used to verify the strength and direction of relationships between variables. In all calculations, $p < 0.05$ was assumed as the level of significance.

3.5. Ethical considerations

The project was approved by the Bioethical Committee for Scientific Research.

4. Results

Sociodemographic characteristics of the studied group

The study group consisted of 211 women (98.1%) and 4 men (1.9%). The age of oncology nurses ranged from between 23 and 60 years old (mean age: 45.21 +- 7.83). Most studied personnel were married and were residents of cities. The greatest number of participants were nurses with a bachelor’s degree (N=91, 42.3%) and with a master’s degree (N=69, 32.1%). 127 nurses (39.6%) were specialists in oncology nursing.

Professional status

The mean length of service was 23.20 years (SD=8.86). Almost all the nurses were employed on a contractual basis (N=208, 97.2%), and more than half of them were working shifts (day/night) (N=130, 60.50%). The studied oncology nurses were employed in chemotherapy, radiotherapy and oncological

surgery departments. 43.9% of nurses declared having an additional job. The most commonly diagnosed diseases in nurses were those of the musculoskeletal (34.7 %, N=103) and cardiovascular systems (14.1%, N=42).

Job satisfaction

The mean satisfaction level in the studied group was 67.10 points. The most satisfying elements were: the possibility of doing something good for others (82.9% of nurses were satisfied and very satisfied), satisfaction with one's current life (74.4% of nurses were satisfied and very satisfied), the professional skills of superiors (73.9% of nurses were satisfied and very satisfied), the importance of work (60.6% of nurses were satisfied and very satisfied). The least satisfying elements were: promotion prospects (26.3% of nurses were very dissatisfied and dissatisfied), chances of holding a senior position (25.4% of nurses were very dissatisfied and dissatisfied), methods of work assessment and the remuneration system in the given organisation (23.4% of nurses were very dissatisfied and dissatisfied).

The collected data were analysed to assess the job satisfaction level in the context of age, place of residence, marital status, length of service, additional work, and working pattern.

The Spearman correlation test did not reveal any statistically significant relationship between job satisfaction and the age of the participants ($r_{HO}=0.12$; $p>0.05$).

The statistical analysis (Kruskal-Wallis test) did not reveal any statistically significant relationship between job satisfaction and the education level of the participants. Education does not determine the job satisfaction level ($H(2)=1.05$ $p>0.05$).

However, there was a statistically significant relationship between job satisfaction and the marital status of the participants (Mann-Whitney U test). Married nurses showed a statistically significant higher job satisfaction level ($Z=2.57$; $p<0.05$).

A higher job satisfaction level was observed for participants living in cities with 50,000 – 100,000 inhabitants than for those living in cities with 100,000 – 500,000 inhabitants. There was no statistically significant relationship between other groups ($H(4) = 8.85$; $p < 0.05$).

There was no relationship between the length of service and job satisfaction in the studied group of nurses ($r_{HO}=0.08$; $p>0.05$).

An additional job does not affect the job satisfaction level (Mann-Whitney U test, $Z=0.20$; $p> 0.05$). A statistically significant higher job satisfaction level was observed for nurses working single shifts than for those having a multi-shift working pattern (Mann-Whitney U test, $Z=3.58$; $p<0.001$).

Table 1. Job satisfaction vs. working pattern and additional job.

Job satisfaction level vs. additional job	N	M	SD	Z	p
Yes	93	67.27	10.18	0.20	0.835
No	117	66.83	12.79		
Job satisfaction level vs. work pattern	N	M	SD	Z	p
Single-shift	81	70.79	10.45	3.78	0.000
Multi-shift	130	64.73	11.81		

The analysis revealed that a significantly lower job satisfaction level was noted in participants with diagnosed gastrointestinal ($Z=2.55$; $p<0.05$) and genitourinary ($Z=2.48$; $p<0.05$) diseases. There were no statistically significant differences between other variables.

Assessment of the family situation

The mean score in the Family APGAR scale was 7.71 (SD=2,44), which indicates that there are no disturbances in family functioning.

The assessment of the family situation among oncology nurses did not reveal significant disturbances in the family system in 71.2% of the participants. Most of the studied nurses declared that they almost always receive adequate family support (71.7%). The nurses were almost always satisfied with partnership relations in their families (61.3%). Similarly, they were satisfied with development possibilities within the family, and the way they spent time together (almost always for 53.6%). Only half of the participants were satisfied with the way their family expresses emotions and reacts to them (almost always for 48.1%). Single respondents expressed a deficit in terms of assistance and emotional support from their families or the way they spent time together.

Family financial status vs. the job satisfaction level and family functioning

A higher job satisfaction level was observed among participants who assessed their financial status as very good and rather good than among those who assessed it as average or rather poor ($H(3)=35.36; p < 0.001$). There was no statistically significant relationship between other groups. Better family functioning was noted among participants who assessed their financial status as very good than among those who had an average financial status ($H(3)=6.83; p=0.05$). There were no statistically significant differences between other groups.

Table 2. Job satisfaction level vs. assessment of the family financial status and family functioning vs. assessment of the family financial status.

Job satisfaction level vs. assessment of financial status	N	M	SD	H	df	p
Very good	10	78.00	7.58	35.36	3	0.000
Rather good	117	69.76	10.54			
Average	79	62.18	11.52			
Rather poor	6	59.00	7.23			
Family functioning (FAMILY APGAR) vs. financial status	N	M	SD	H	df	p
Very good	11	8.81	1.60	6.83	3	0.050
Rather good	117	8.04	2.10			
Average	78	7.05	2.85			
Rather poor	5	7.60	2.50			

Family functioning vs. the job satisfaction level

Better family functioning is associated with a higher job satisfaction level ($rHO = 0.30; p < 0.001$).

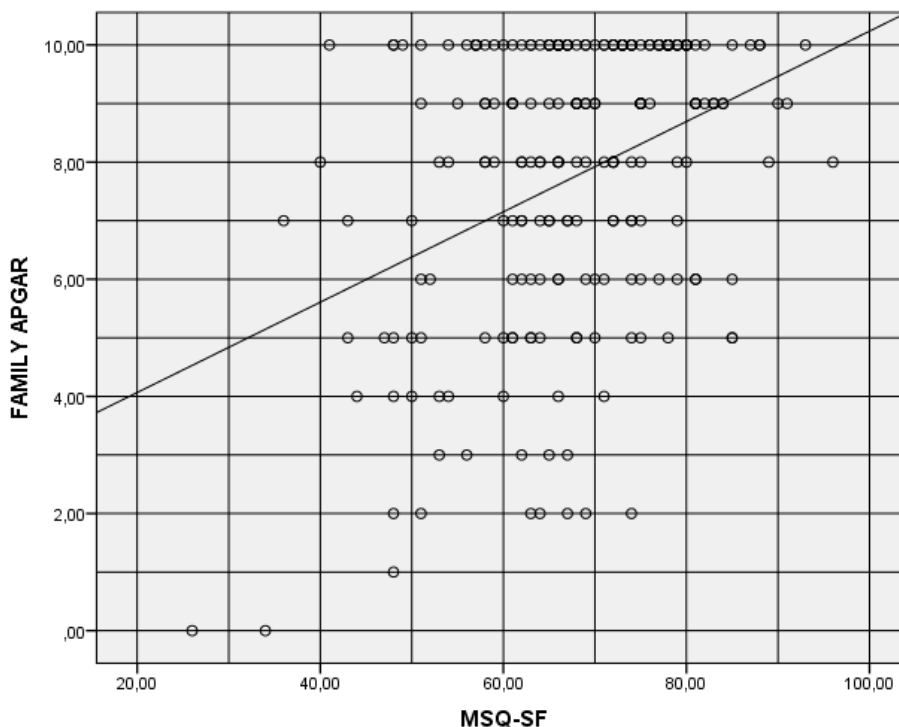


Figure 1. Family functioning vs job satisfaction.

5. Discussion

Professional work is an important area of human activity, an important part of life and may have a significant impact on other areas of life [16-19].

The results of the studies confirmed that oncology nurses find the greatest satisfaction at work from the possibility of doing something good for others, from their current life, the professional skills of their superior and the importance of their work. On the other hand, they were the least satisfied with promotion prospects, chances of holding a senior professional position, methods of work assessment and the remuneration system. This seems to correctly reflect the difficult situation in nursing in Poland [20].

Many authors have analysed job satisfaction among professionally active nurses in Poland. Their results have confirmed that remuneration, atmosphere at work, equipment available in the department and professional stress are all determinants of the job satisfaction level [1,19,21,22]. As in our own studies, remuneration turned out to be a negative determinant of job satisfaction among oncology nurses. The results of studies carried out by Zajkowska et al. [23] among primary healthcare nurses in Poland and in the United States of America enabled her to identify factors which would help Polish nurses in achieving professional satisfaction. They included: higher remuneration, physicians' trust, better possibilities to improve professional qualifications, as well as better working conditions. On the other hand, according to the opinion of American nurses, increased satisfaction is associated with the ability to communicate and the possibility to improve professional qualifications. In contrast to Polish nurses, very few of them require financial motivation.

Nurses are satisfied with working for oncology patients, both by doing something good for others and by the importance of their job, which has an impact on the quality of their work. The work of nurses is usually highly rated by their patients. The patients appreciate their kind approach and ability to develop a direct interpersonal relationship. It should be emphasised that the work of oncology nurses is

considered more stressful than work in other medical fields. The studies revealed that oncology nurses are especially endangered by burnout syndrome. The source of their stress includes problems with patients, especially the chronic nature of their disease and disease recurrence [24].

The results of the studies confirmed that oncology nurses are satisfied with the professional abilities of their superiors, which is a predictor of their job satisfaction. This confirms that a superior is an important factor for creating and developing professional identity, guaranteeing stability and security at work, and is a source of emotional support. A superior therefore has a very important function towards a subordinate, reflected in granting him/her a sense of security, recognition, acceptance and emotional support [25].

Remuneration is one of the occupational factors which has an impact on the job satisfaction level [26] and plays a key role in creating job satisfaction for the most numerous group of employees [27]. However, oncology nurses mentioned this element as the least satisfying. Other studies revealed that receiving a salary which does not exceed the median decreases the satisfaction level, but a salary greater than the median value does not have any impact on satisfaction. Moreover, an employee is not satisfied with this once they reach a certain remuneration level, so an employer has to search for other motivators. Promotion prospects and holding higher professional positions is very important for the assessment of satisfaction. If a nurse observes that they have no possibility to develop, and no future prospects, they become more and more dissatisfied with their working conditions [28]. On the other hand, once they hold a higher position in the organisational structure, they gain access to more and more motivators, and greater autonomy and responsibility. Their tasks become more difficult and they gain the possibility to fully use their knowledge and skills [29].

Extra-professional factors which may alter job satisfaction include both general life satisfaction (defined as the quality of life) and the group of factors which generate it, such as family, health status, fortune, place of residence and social support (Satyanarayana et al. 2008). The results of the studies confirmed that nurses are satisfied with their lives, which in turn confirms the association between job satisfaction and life satisfaction. It should be emphasised that nurses' job satisfaction has an impact on their life satisfaction. The greater the job satisfaction, the better the quality of life [30].

Our own studies showed that there is no statistically significant relationship between both age and length of service and the job satisfaction level. The results of studies carried out by other authors revealed, however, that job satisfaction increases with age and is higher in mature employees and those with a longer length of service. These employees are trusted more, and their competences and skills are assessed more positively, which results in a higher job satisfaction level. This is confirmed by the studies carried out by Pawlik et al. [31] among professionally active nurses in Poland and Norway. They revealed that 75% of Polish, and only 16% of Norwegian respondents showed a low and very low job satisfaction level. The nurses working in Norway revealed a higher satisfaction level with the studied aspects of job satisfaction (age and length of service), i.e. the job satisfaction increased with age and length of service. No significant relationship between the length of service of nurses and job satisfaction was observed in other studies. It was noted that graduation may have a negative impact on the job satisfaction level, which is associated with nurses' expectations towards their work [32].

The shift work pattern is a negative determinant of job satisfaction [33,34]. Night-time work is a source of considerable mental and physical burden [9]. It leads to multiple pain syndromes and the deterioration of health status. It may contribute to the development of conflict between the job and the family [35]. The oncology nurses working single shifts showed significantly greater job satisfaction. The studies by other authors confirmed that there is a significant correlation between job satisfaction and the

psychosomatic health of employees [36,19]. Genitourinary and gastrointestinal diseases had a significant impact on the job satisfaction of oncology nurses.

Most current researchers emphasise the importance of the family factor. They suspect that there is a positive correlation between job satisfaction and family-life satisfaction. For most people, work and the family are the especially important areas of their functioning [17]. Combining occupational duties with the role of a family member poses a significant problem for work. Work should create conditions for the multidimensional self-realisation of each unit in the family-life area. Therefore, modern science pays more and more attention to the nature of relations between occupational work and extra-professional life [18].

Despite the fact that families may play the role of an acceptable source of trust, they may not possess adequate experience nor be adequately prepared to provide suitable support, which in many cases leads to other adverse problems which disrupt the boundary between professional and family life [37].

No disturbances in family functioning were observed in the studied group of oncology nurses. It was confirmed that better functioning in family life is associated with increased job satisfaction. The family system emphasises the importance of the family as a complex and integrated society. Particular family members are co-dependent, and the family life of employees must be taken into consideration in this process [38].

6. Conclusions

1. Sociodemographic factors determining job satisfaction among oncology nurses include: place of residence, marital status, health status, financial status, and family.
2. Oncology nurses working single shifts showed significantly higher job satisfaction.
3. Better functioning in family life is associated with improved job satisfaction among oncology nurses.
4. Job aspects which proved to be significantly associated with the satisfaction level include: the possibility of doing something good for others, satisfaction with one's current life, the professional skills of one's superior, and the perceived importance of work.
5. Nurses were least satisfied with their promotion prospects, chances of holding higher positions, work assessment and the remuneration system.

Implications for nursing policy and practice

The job satisfaction level of nurses should be measured and identified, and respective actions should focus on increasing job satisfaction. Job satisfaction is very important for the healthcare system because it affects the satisfaction level perceived by patients. Most factors determining job satisfaction and motivation levels should be considered by superiors and adequately modified. The education of nursing leaders is therefore necessary. As well as financial incentives, non-material motivation actions are expected.

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