



The Psychosomatic Health Status of Polish Psychiatric Nurses in Relation to Socio-Demographic Variables

Lopatkiewicz AL¹, Guzak B^{2*} and Krzych-Falta E³

¹Warsaw Medical University Tadeusz Kozluk, Poland

²Center of Postgraduate Education for Nurses and Midwives, Poland

³Department of Basic Nursing, Medical University of Warsaw, Poland

*Corresponding author: Guzak Beata, Center of Postgraduate Education for Nurses and Midwives, Poland, Email: b.guzak@ckppip.edu.pl

Research Article

Volume 9 Issue 1

Received Date: November 14, 2023

Published Date: January 08, 2024

DOI: 10.23880/pprij-16000382

Abstract

Objective: The main aim of the study was to assess the psychosomatic health status of psychiatric nurses based on socio-demographic variables.

Materials and Methods: The research was conducted at the Mazovian Provincial Hospital in Ząbki on a group of 101 individuals working in nursing positions. All participants gave voluntary and free consent to participate in the study. The study obtained approval from the bioethical committee. The health status of the respondents was assessed using a standardized, validated GHQ-28 questionnaire. The level of significance was set at $p=0.05$.

Results: Social dysfunction among participants increased with age and length of employment at the current workplace ($p < 0.05$). Significantly higher scores ($p < 0.05$) in this area were observed in individuals in marital relationships and those with higher education. The intensity of anxiety and insomnia was significantly higher ($p < 0.05$) in individuals in marital relationships, respondents with secondary education, and those with a total work experience exceeding 30 years and over 15 years in the current workplace. The intensity of depressive symptoms was associated with a lack of higher education among respondents. The factor with the greatest impact on somatic symptoms among surveyed nurses ($p < 0.05$) was age over 50.

Conclusions: There is a significant association between the intensity of somatic symptoms, anxiety, insomnia, and functional disorders and the age of participants. There is a significant association between the intensity of anxiety and insomnia symptoms, functional impairments, and the marital status of participants. There is a significant association between the intensity of depressive symptoms, anxiety, insomnia, and social dysfunction and the education level of participants.

Keywords: Mental Health; Psychiatric Nursing; GHQ-28

Introduction

Positive mental health constitutes a fundamental factor for the overall well-being and effective participation in society for every individual. Challenges and difficult situations are inherent parts of everyday life and professional

life for everyone. Nursing, as a profession supporting others and preventing illnesses, simultaneously exposes nurses to physical and mental burdens that can lead to health, social, and personal problems [1]. Individuals with mental health are capable of effectively managing negative emotions, such as sadness, anger, or unhappiness. In this context, Galderisi

and others propose a revised definition of mental health, describing it as a constantly changing state of internal balance, enabling individuals to function harmoniously and adhere to universal values. It is a dynamic relationship between the body and the mind, contributing to maintaining internal balance throughout life [2]. According to Keyes, well-being encompasses emotional, psychological, and social aspects, involving the experience of satisfaction, happiness, a positive attitude towards duties, other people, and social integration, ultimately resulting in genuine happiness [3].

In the context of this study, the relationships between mental health and its components were analyzed concerning various socio-demographic variables, such as gender, age, education, professional experience, and tenure at the current workplace. The main objective of the study was to assess the mental health status of psychiatric nurses in relation to socio-demographic variables.

Methods

The participants' health status was assessed using the standardized GHQ-28 questionnaire, which provides an evaluation of general emotional stress and its intensity in four subscales. These subscales include somatic symptoms, anxiety and insomnia, social dysfunction, and depression. The results were calculated using the dichotomous method,

the GHQ score scale, where responses from the first and second columns of the questionnaire were assigned a value of 0, and responses from the third and fourth columns were assigned a value of 1. Additionally, nominal variables were created for each subscale, where a score above 4 indicated the presence of symptoms specified by that subscale.

Statistical Analysis

Calculations were carried out using the R statistical environment version 3.6.0, SPSS, and MS Office 2019. Quantitative variables were analyzed using parametric tests such as the Student's t-test or ANOVA, and non-parametric tests such as the Mann-Whitney U test or Kruskal-Wallis test. The choice of test depended on the variable distribution, and results were verified using the Shapiro-Wilk test. The significance level was set at $p=0.05$. For the analysis of ordinal or nominal variables, tests based on the chi-square distribution were applied. For 2x2 tables, continuity correction was applied, and for cases where the chi-square test conditions were not met, the Fisher's exact test was used, extended for tables larger than 2x2.

Results

Descriptive statistics (Table 1).

	M	SD	Min	Maks	Q25	Me	Q75
overall result	6,74	7,10	0,00	28,00	1,00	4,50	11,25
somatic symptoms	2,18	2,20	0,00	7,00	0,00	2,00	3,00
anxiety and insomnia	2,10	2,34	0,00	7,00	0,00	1,00	4,00
social dysfunction	1,83	2,39	0,00	7,00	0,00	0,00	4,00
severe depression	0,63	1,55	0,00	7,00	0,00	0,00	0,00

Table 1: M – average; SD – standard deviation; Min – minimum; Max – maximum; Q25 – first quartile; Me – median; Q75 – third quartile.

As a result of the conducted analyses, it was demonstrated that there is a significant relationship between the intensity

of somatic symptoms, anxiety and insomnia, as well as social dysfunction, and the age of the participants (Table 2).

	Age	χ^2	df	p	Min	Maks	Me
overall result	up to 40 years	4,62	2	0,099	0,00	19,00	2,50
	41-50 years old				0,00	27,00	2,00
	over 50 years old				0,00	28,00	7,00
somatic symptoms	up to 40 years	6,70	2	0,035	0,00	4,00	1,00
	41-50 years old				0,00	7,00	1,00
	over 50 years old				0,00	7,00	2,00

anxiety and insomnia	up to 40 years	4,15	2	0,049	0,00	6,00	1,00
	41-50 years old				0,00	7,00	1,00
	over 50 years old				0,00	7,00	2,00
social dysfunction	up to 40 years	8,08	2	0,018	0,00	4,00	0,00
	41-50 years old				0,00	7,00	0,00
	over 50 years old				0,00	7,00	2,00
severe depression	up to 40 years	0,07	2	0,964	0,00	7,00	0,00
	41-50 years old				0,00	7,00	0,00
	over 50 years old				0,00	7,00	0,00

Table 2: χ^2 – test statistics; df – degrees of freedom; p – statistical significance; Min – minimum result; Max – maximum result; Me – median.

The age of the respondents had an impact on somatic symptoms, anxiety and insomnia, as well as social dysfunction. Regarding emotional suffering and acute depression, there were no statistically significant differences among the participants based on age ($p > 0.05$). A significant relationship was demonstrated between the intensity of somatic symptoms, anxiety and insomnia, and social dysfunction, and the age of the participants. Statistically significant differences ($p < 0.05$) were observed between individuals aged 40 and below and those above 50 years old.

Participants above 50 years old scored twice as high on these three subscales of the GHQ-28.

The marital status also influenced the mental health of the surveyed nurses. Married individuals obtained a significantly higher score ($p < 0.05$) than unmarried individuals in terms of the intensity of anxiety and insomnia symptoms and social dysfunction. Regarding the overall score, as well as the intensity of somatic symptoms and acute depression, there were no statistically significant differences among the participants based on marital status (Table 3).

Descriptive Statistics						
		U	p	Min	Maks	Me
Marital status	overall result	936,50	0,062			
	married			0,00	27,00	5,50
	not married			0,00	28,00	2,00
Marital status	somatic symptoms	1062,00	0,322			
	married			0,00	7,00	2,00
	not married			0,00	7,00	2,00
Marital status	anxiety and insomnia	926,00	0,045			
	married			0,00	7,00	2,00
	not married			0,00	7,00	0,00
Marital status	social dysfunction	905,00	0,025			
	married			0,00	7,00	1,00
	not married			0,00	7,00	0,00
Marital status	severe depression	1120,00	0,448			
	married			0,00	7,00	0,00
	not married			0,00	7,00	0,00

Table 3: U – test statistics; p – statistical significance; Me – median; Min – minimum result; Max – maximum score.

It was also demonstrated that education has an impact on the mental health of the surveyed psychiatric nurses. A significant relationship was obtained in terms of the

overall score, anxiety and insomnia, and social dysfunction. Participants with medium education levels exhibited an eightfold higher score on the anxiety and insomnia scale than

individuals with master's level education. The intensity of anxiety and insomnia symptoms was significantly higher in participants with medium education compared to those with master's level education. In the realm of social dysfunction,

participants with medium education achieved significantly higher scores than those with bachelor's and master's level education ($p < 0.05$) (Table 4).

	Education	χ^2	df	p	Min	Maks	Me
overall result	secondary education	3,41	2	0,049	0,00	28,00	12,50
	higher bachelor's degree				0,00	27,00	4,00
	higher master's degrees				0,00	17,00	4,00
somatic symptoms	secondary education	3,12	2	0,211	0,00	7,00	3,50
	higher bachelor's degree				0,00	7,00	1,00
	higher master's degrees				0,00	6,00	2,00
anxiety and insomnia	secondary education	5,04	2	0,049	0,00	7,00	4,00
	higher bachelor's degree				0,00	7,00	1,50
	higher master's degrees				0,00	6,00	0,50
social dysfunction	secondary education	5,83	2	0,049	0,00	7,00	4,00
	higher bachelor's degree				0,00	7,00	0,00
	higher master's degrees				0,00	7,00	0,00
severe depression	secondary education	0,96	2	0,620	0,00	7,00	0,00
	higher bachelor's degree				0,00	7,00	0,00
	higher master's degrees				0,00	7,00	0,00

Table 4: χ^2 – test statistics; df – degrees of freedom; p – statistical significance; Min – minimum result; Max – maximum result; Me – median.

The mental health status of the participants was also dependent on their years of experience in the profession and tenure at the current workplace. Half of the participants with a total work experience ranging from 1 to 10 years exhibited a threefold lower intensity of anxiety and insomnia symptoms than individuals with over 30 years of work experience. In terms of social dysfunction, individuals with over 30 years of work experience demonstrated a twofold higher level of symptom intensity than those with work experience up to 10 years. Regarding overall emotional suffering, intensity of somatic symptoms, and acute depression, there were no

statistically significant differences among the participants based on work experience in the profession ($p > 0.05$). However, concerning tenure at the current workplace, the surveyed nurses differed significantly ($p < 0.05$) in the intensity of anxiety and insomnia symptoms and social dysfunction. In both of these subscales, individuals working up to 15 years at their current workplace had a twofold lower level compared to those working over 15 years. In other dimensions of mental health, no statistically significant differences were observed among the participants ($p > 0.05$) (Tables 5 & 6).

	Work Experience in the Profession	χ^2	df	p	Min	Maks	Me
overall result	1-10 years	6,47	3	0,091	0,00	19,00	2,00
	11-20 years old				0,00	23,00	5,00
	21-30 years old				0,00	28,00	4,00
	over 30 years old				0,00	23,00	10,00
somatic symptoms	1-10 years	6,58	3	0,087	0,00	6,00	1,00
	11-20 years old				0,00	7,00	1,00
	21-30 years old				0,00	7,00	1,00
	over 30 years old				0,00	7,00	3,00

anxiety and insomnia	1-10 years	8,24	3	0,041	0,00	6,00	0,00
	11-20 years old				0,00	7,00	2,00
	21-30 years old				0,00	7,00	1,00
	over 30 years old				0,00	7,00	3,00
social dysfunction	1-10 years	9,63	3	0,022	0,00	4,00	0,00
	11-20 years old				0,00	6,00	0,00
	21-30 years old				0,00	7,00	0,00
	over 30 years old				0,00	7,00	2,00
severe depression	1-10 years	0,59	3	0,898	0,00	7,00	0,00
	11-20 years old				0,00	4,00	0,00
	21-30 years old				0,00	7,00	0,00
	over 30 years old				0,00	2,00	0,00

Table 5: χ^2 – test statistics; df – degrees of freedom; p – statistical significance; Min – minimum result; Max – maximum result; Me – median.

	Internship at Current Job	χ^2	df	p	Min	Maks	Me
overall result	1-5 years	8,75	2	0,055	0,00	19,00	5,00
	6-15 years old				0,00	27,00	1,00
	over 15 years old				0,00	28,00	6,00
somatic symptoms	1-5 years	7,22	2	0,055	0,00	7,00	2,00
	6-15 years old				0,00	7,00	0,00
	over 15 years old				0,00	7,00	2,00
anxiety and insomnia	1-5 years	7,49	2	0,024	0,00	6,00	2,00
	6-15 years old				0,00	7,00	0,00
	over 15 years old				0,00	7,00	2,00
social dysfunction	1-5 years	8,65	2	0,013	0,00	7,00	1,00
	6-15 years old				0,00	6,00	0,00
	over 15 years old				0,00	7,00	2,00
severe depression	1-5 years	1,36	2	0,508	0,00	7,00	0,00
	6-15 years old				0,00	7,00	0,00
	over 15 years old				0,00	7,00	0,00

Table 6: χ^2 – test statistics; df – degrees of freedom; p – statistical significance; Min – minimum result; Max – maximum result; Me – median.

Discussion

Mental health can be understood as the ability to develop and self-realize, manifesting in a sense of well-being, self-assurance, belief in oneself, and a sense of self-worth. Mental condition influences the way of thinking, feeling, and acting. Good mental health helps individuals fully enjoy life, overcome difficulties, and make appropriate choices. It also aids in adapting to social and cultural norms. This study aimed to assess the psychosomatic health of Polish

nurses working in psychiatric wards using the standardized research tool, the GHQ-28 questionnaire. The results of this study demonstrated that with age, somatic symptoms such as anxiety, insomnia, and social dysfunction intensify. In women, anxiety, insomnia, and dysfunction symptoms also increase with age. Epidemiological studies McLean CP, et al. [4] support this finding, showing that women experience various anxiety disorders, such as social phobia or specific phobias, twice as often throughout their lives, translating into dysfunction in the area related to this study.

The study revealed that work experience negatively affects certain dimensions of health, such as anxiety and insomnia, and social dysfunction. Similar conclusions were drawn in a study involving 76 psychiatric nurses [5], where professional experience and tenure at the workplace correlated with various aspects of mental health. The longer the tenure at a specific workplace, the higher the level of mental health issues. Kliszczyk et al. also support this, stating that the pace of life, excessive duties, and hormonal changes over time have a negative impact on women's health, both physically and mentally [6]. According to Gallagher, et al. [7] professional experience and age positively correlated with the occurrence of somatic symptoms. Older nurses who worked longer in the profession more frequently experienced sleep problems, anxiety, depression, somatic symptoms, and poorer social functioning. Bazazan, et al. [8] study indicated that mental health problems and fatigue are correlated, affirming the direct and indirect influence of life quality on mental health issues in all domains.

Lewko et al. [9] demonstrated, using the GHQ-28 questionnaire, that shift work significantly influenced depression symptoms in psychiatric nurses. The study revealed higher intensity of anxiety and insomnia symptoms and social dysfunction in married individuals compared to unmarried individuals. Siemiginowska, in her study utilizing the Work-Family Influence Scale, Marital Communication Questionnaire, and GHQ-28, showed that mental health problems in shift workers (somatic symptoms, anxiety and insomnia, social dysfunction, acute depression, overall health status) correlate with work-family conflict, marital communication, and shift workers' health [10].

In this study, no association was confirmed between the education of the surveyed nurses and their overall health status. However, Zdończyk's study showed that a higher level of education among nurses and stable professional situations were associated with higher rates of health-promoting behaviors [11].

Andruszkiewicz et al. investigated the impact of the work environment on the health of 364 nurses. The GHQ-28 questionnaire allowed them to observe many significant correlations between the work environment and health status, revealing that the most common health problems were anxiety and sleep issues [12]. Kliszczyk, et al. [6] demonstrated that a high level of anxiety occurs in nurses with the shortest work experience.

In summary, among the surveyed nurses working with individuals with mental disorders, somatic symptoms such as anxiety, insomnia, and dysfunction intensify with age and work experience in the profession.

Conclusion

A relationship was demonstrated between the intensity of somatic symptoms, anxiety and insomnia, and social dysfunction and the age of the participants.

Individuals in relationships exhibited significantly higher levels of anxiety and insomnia as well as social dysfunction. This result may suggest that family life combined with professional work increases anxiety levels and consequently leads to greater insomnia in the surveyed individuals.

Individuals with a medium level of education showed a significantly higher level of emotional exhaustion. This may suggest that nurses with higher education are better prepared to cope with difficult and stressful situations.

The longer the professional experience of nurses and their tenure at a specific workplace, the higher the intensity of anxiety, insomnia, and dysfunction. With longer work experience, the surveyed individuals struggled more in these areas.

References

1. Łopatkiewicz A, Kwaśnicka A, Nowicki P, Furmańczyk K, Zieliński W, et al. (2023) Occupational Burnout and Mental Health. A Study of Psychiatric Nurses from Six European Countries. *Advances in Cognitive Psychology* 19(1): 80-91.
2. Galderisi S, Heinz A, Kastrup M, Beezhold J, Sartorius N (2017) A proposed new definition of mental health. *Psychiatr Pol* 51(3): 407-411.
3. Keyes CLM (2014) Mental health as a complete state: how the salutogenic perspective completes the picture. In: Bauer GF, Hämmig O (Eds.), *Bridging occupational, organizational and public health*. Dordrecht: Springer pp: 179-192.
4. McLean CP, Anderson ER (2009) Brave men and timid women? A review of the gender differences in fear and anxiety. *Clinical psychology review* 29(6): 496-505.
5. Łopatkiewicz A, Woynarowska-Soldan M, Krzych-Fałta E (2019) Selected Socio-demographic Factors Influencing the Development of Occupational Burnout Syndrome in Polish Psychiatric Nurses Working in Locked Wards in the Vicinity of Warsaw. *Journal of Health Study and Medicine* 4: 5-20.
6. Kliszczyk J, Nowicka-Sauer K, Trzeciak B, Sadowska A (2004) The level of anxiety, depression and aggression in nurses and their life and job satisfaction. *Medycyna*

Pracy 55(6): 461-468.

Public Health 16(10): 1798.

7. Gallagher R, Perry L, Duffield C, Sibbritt D, Ying Ko CM (2018) The health of working nurses: Hypertension prevalence, awareness, treatment and control by medication. *J Nurs Manag* 26(4): 403-410.
8. Bazazan A, Dianat I, Mombeini Z, Aynehchi A, Jafarabadi MA (2019) Fatigue as a mediator of the relationship between quality of life and mental health problems in hospital nurses. *Accident Analysis & Prevention* 126: 31-36.
9. Lewko J, Misiak B, Sierżantowicz R (2019) The Relationship between Mental Health and the Quality of Life of Polish Nurses with Many Years of Experience in the Profession: A Cross-Sectional Study. *Int J Environ Res*
10. Siemiginowska P, Wątroba J (2017) Work-family relationship, marital communication and health of backward rotation employees. *Journal of the University of Lodz Folia Psychologica nr (21): 63-77.*
11. Zdończyk SA (2015) The effect of selected socio-medical factors on quality of life and psychosexual functioning in women after surgical treatment of breast cancer. *Pomeranian J Life Sci* 61: 199-206.
12. Andruszkiewicz A, Banaszekiewicz M, Nowik M (2014) Selected aspects of the work environment and the health status of nurses. In: Majchrzak-Kłokocka E, Woźniak A (Eds.), *Entrepreneurship and management, Europe* 15: 73-88.

