



ASSESSMENT OF SUICIDE RISK FACTORS AMONG POLISH PSYCHIATRIC NURSES. A PILOT STUDY

OCENA CZYNNIKÓW RYZYKA SAMOBÓJSTWA WŚRÓD POLSKICH PIELEŃNIAREK PSYCHIATRYCZNYCH. BADANIE PILOTAŻOWE

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ABSTRACT

Introduction. Nurses have a higher risk of suicide than people in the general population. However, no studies have been conducted in Poland to assess the risk of suicide among nurses. Psychiatric nurses seem to be at higher risk of suicide due to the nature of their work.

Aim. The aim of this study was to investigate the prevalence of suicidal ideation and the extent to which personal and professional factors were related to suicidal ideation. The study assessed the presence of factors that increase and decrease the risk of suicide among psychiatric nurses.

Material and methods. The study design was carried out in accordance with the STROBE guidelines, which used an original questionnaire consisting of 20 questions. The questionnaire was sent electronically to randomly selected psychiatric institutions in Poland. Participation in the survey was completely voluntary and anonymous. The survey was completed by 195 nurses between January and May 2021. The data were then analyzed using descriptive and multivariate statistics. If participants did not answer more than three questions in the survey, they were removed from further analysis. 190 completed forms were allowed for analysis.

Results. A group of 190 people took part in the study. Most of the participants were women (166; 87%), and only 24 (13%) were men. Over 80% of respondents believed that working with mentally ill people has a negative impact on their health. Suicidal thoughts were most often declared by nurses with suicidal intentions (94%), then nurses taking sedatives (63%), struggling with depression (58%) and addicted to psychoactive substances (50%), drinking alcohol (41%) and not receiving support in the workplace (28%), and in whom work caused anxiety (28%). The respondents who declared that work had no effect on their health did not have suicidal thoughts at all. The occurrence of psychological disorders significantly correlated with the intensification of suicidal thoughts. All respondents who had schizophrenia had frequent suicidal thoughts, while the vast majority of people without mental disorders had no such thoughts (92%). Male nurses (33%) considered taking their own lives more often than female nurses (13%). The way of coping with stress at work had a significant impact on the occurrence of suicidal thoughts. Nurses who used relaxation techniques told their

STRESZCZENIE

Wstęp. W zawodzie pielęgniarki występuje wyższe ryzyko samobójstwa niż u ludzi w populacji ogólnej. W Polsce nie przeprowadzono jednak badań oceniających ryzyko samobójstwa wśród pielęgniarek. Wydaje się, że pielęgniarki psychiatryczne są bardziej narażone na samobójstwo ze względu na charakter ich pracy.

Cel. Celem tego badania było zbadanie rozpowszechnienia myśli samobójczych oraz stopnia, w jakim czynniki osobiste i zawodowe były powiązane z myślami samobójczymi. W badaniu oceniono występowanie czynników zwiększających i zmniejszających ryzyko samobójstwa wśród pielęgniarek psychiatrycznych.

Materiał i metody. Projekt badania zrealizowano zgodnie z wytycznymi STROBE, w którym wykorzystano autorski kwestionariusz składający się z 20 pytań. Ankieta została rozestana drogą elektroniczną do losowo wybranych placówek psychiatrycznych w Polsce. Udział w badaniu był całkowicie dobrowolny i anonimowy. Ankietę wypełniło 195 pielęgniarek w okresie od stycznia do maja 2021 r. Następnie dane zostały przeanalizowane za pomocą statystyki opisowej i wielowymiarowej. Jeżeli uczestnicy nie odpowiedzieli w ankiecie na więcej niż 3 pytania, byli wyłączeni z dalszej analizy. Do analizy włączono 190 wypełnionych formularzy.

Wyniki. W badaniu wzięło udział 190 osób. Większość uczestników stanowiły kobiety (166; 87%), a tylko 24 (13%) mężczyźni. Ponad 80% badanych uznało, że praca z osobami chorymi psychicznie ma negatywny wpływ na ich zdrowie. Myśli samobójcze najczęściej deklarowały pielęgniarki z intencjami samobójczymi (94%), następnie pielęgniarki przyjmujące leki uspokajające (63%), zmagające się z depresją (58%) i uzależnieniami od substancji psychoaktywnych (50%), pijące alkohol (41%) oraz nieotrzymujące wsparcia w miejscu pracy (28%) i u których praca wywoływała lęk lub niepokój (28%). Respondenci, którzy deklarowali, że praca nie ma wpływu na ich zdrowie, w ogóle nie mieli myśli samobójczych. Występowanie zaburzeń psychicznych istotnie korelowało z nasileniem myśli samobójczych. Wszyscy respondenci ze schizofrenią mieli częste myśli samobójcze, podczas gdy zdecydowana większość osób bez zaburzeń psychicznych nie miała takich myśli (92%). Pielęgniarki (33%) częściej rozważali odebranie sobie życia niż pielęgniarki (13%). Sposób

friends and family about their problems, and over 90% of them did not have suicidal thoughts. On the other hand, nurses coping with stress through the use of sedatives (37%), drinking alcohol (59%) or smoking (73%) did not report suicidal thoughts. More than 92% of the respondents, who received support at work from a psychologist or their supervisor, had no suicidal thoughts.

Conclusions. Working in psychiatry had a significant impact on the mental health of the respondents. It has been shown that male psychiatric nurses reported suicidal thoughts more often than nurses, the presence of mental problems and behaviours increasing the risk of a suicide attempt. Respondents, who received support from their supervisor, a psychologist or friends, experienced the lowest percentage of suicidal thoughts. Psychiatry work experience, place of employment, level of education, age and marital status of the respondents had no influence on the severity of suicidal thoughts.

KEYWORDS: risk factors, suicide, male nurses, psychiatric nurses.

radzenia sobie ze stresem zawodowym miał znaczący wpływ na występowanie myśli samobójczych. Pielęgniarki, które stosowały techniki relaksacyjne, rozmawiały o swoich problemach z przyjaciółmi, rodziną, w ponad 90% nie miały myśli samobójczych. Natomiast pielęgniarki radzące sobie ze stresem poprzez stosowanie leków uspokajających (37%), picie alkoholu (59%) lub palenie papierosów (73%) nie zgłaszały myśli samobójczych. Ponad 92% badanych, którzy otrzymali wsparcie w miejscu zatrudnienia od psychologa lub swojego przełożonego, nie miało myśli samobójczych.

Wnioski. Praca w psychiatrii miała istotny wpływ na zdrowie psychiczne badanych. Wykazano, że pielęgniarki psychiatryczne częściej niż pielęgniarki psychiatryczne zgłaszały myśli samobójcze, występowanie problemów psychicznych i zachowań zwiększających ryzyko próby samobójczej. Najmniejszy odsetek myśli samobójczych doświadczali respondenci, którzy otrzymali wsparcie przełożonego, psychologa lub znajomych. Doświadczenie zawodowe w psychiatrii, miejsce zatrudnienia, poziom wykształcenia, wiek i stan cywilny badanych nie miały wpływu na nasilenie myśli samobójczych.

SŁOWA KLUCZOWE: czynniki ryzyka, samobójstwa, pielęgniarze, pielęgniarki psychiatryczne.

Introduction

The issues associated with suicide are complex and remain poorly understood. Generally, suicide is a multi-stage and long-term process. Occupational factors considerably influence the development of self-destructive behaviours. It is estimated that in France, 11,000 people die by suicide each year due to work factors, while in the USA, the number of suicides among the working-age population has increased by 40% in less than 20 years [1]. Low job satisfaction, low-status work, lack of support, poor development and career opportunities, interpersonal conflicts with colleagues, as well as aggression in the workplace considerably increase the risk of suicidal thoughts [2]. The high suicide rate among nurses is alarming. According to a report by the Office for National Statistics, compared to an average woman in England, nurses are exposed to a 23% higher risk of suicide [3]. Long-term observation of suicidal behaviour conducted in the United States indicates that nurses are clearly exposed to a higher risk of suicide than an average American [4].

Despite the numerous burdens faced by nurses in Poland, no studies have been undertaken to assess the occurrence of risk factors for suicide among nurses. Due to the specificity of their work (working with an aggressive patient, conscience stress, and lower prestige compared to other specializations), psychiatric nurses seem to be particularly vulnerable to self-destructive behaviour.

Aim

The aim of the study is to assess the suicide risk among nurses employed in psychiatric care. The following research problems were formulated: 1) Does work experience in psychiatric care affect the risk of suicide among nurses in the studied group?; 2) Is there a link between work and the mental health of the studied group?; 3) Is there a link between the gender of the nursing staff and suicide risk?; 4) Are there factors that reduce the risk of suicide among nurses with suicidal ideation?

Material and methods

The study followed the STROBE guidelines. The focus of the research was nurses who worked in psychiatric care (psychiatric hospitals, community care, and social care homes). The questionnaire was sent by e-mail to the directors of nursing in psychiatric care facilities in the largest Polish cities (Warszawa, Gdańsk, Poznań, Kraków, Szczecin, Wrocław, Rzeszów, Katowice, Białystok, Gorzów Wielkopolski, Lublin), who sent them to nurses. Community care institutions and nursing homes for mentally ill people were searched in Google search, entering the phrase: 'community psychiatry' and the 'list of social welfare homes' in individual provinces in Poland. About 1,550 nursing homes with contact details were found, 602 of which looked after the mentally ill. Among these facilities, those with over 70 patients were distinguished, which constituted 406 facilities throughout Poland. Community psychiatric care units were most

often located next to psychiatric hospitals. In total, we were able to search 134 objects together with contact details. The survey was also available on the website of the Polish Association of Psychiatric Nurses, the Digital Nurses Association and on the website of District Chambers of Nurses and Midwives. Participation in the survey was anonymous and voluntary. The participants were not asked to provide any personal information such as their name, address, place of employment (region, city), date of birth, telephone number, email address and position in the work place to ensure their anonymity. The nurses had no contact with the researcher, which minimized the risk of 'influencing' the respondents' answers. The risk of duplicate responses was minimized by giving each participant a unique number that was associated with the IP address of the electronic equipment from which the completed questionnaires were sent. In the case of re-filling the questionnaire with the same device, the *interankiety.pl* system did not register the answers.

The group was divided by place of employment. As it seems nurses working in closed hospital wards are more exposed to occupational stress (working with patients in the acute phase of the disease) than nurses from other sectors of psychiatric care (social care home, community care). However, these groups were not compared due to the quantitative disproportions of the study participants. The study did not differentiate closed psychiatric wards into wards for children and adolescents, wards for men, and wards for women. The study participants were grouped by gender, level of education, professional experience in psychiatry and suicidal ideation, as these are well-known factors in suicidal behaviour.

The study used an original questionnaire, which consisted of personal data and the main part (20 questions in total). Single- and multiple-choice closed questions were used. The personal data included questions about gender, age, education and marital status. Additionally, the respondents were asked to present their professional experience in psychiatry and the workplace. Most of the questions concerned the impact of professional activity on various aspects of the respondents' lives, including private life, health, and interpersonal relations. Additional questions allowed to identify non-professional factors that burdened the respondents, including family problems, and financial problems. The survey also included questions that allowed us to determine the way of coping with work stress or the possibility of receiving

support during a crisis. Respondents were asked directly about the frequency of suicidal thoughts (How often do you have suicidal thoughts?). The answers to these questions were correlated with demographic data,

seniority in psychiatric care, professional and non-professional problems, the way of coping with stress and the type of support received. This allowed to determine which factors had the greatest influence on the severity of suicidal thoughts.

The survey was completed by 195 nurses between January and May 2021. If participants did not answer more than three questions in the survey, they were removed from further analysis, which allowed the selection of 190 correctly filled forms. The statistical package Statistica v.13.1 PL by StatSoft as well as Microsoft Excel (sum variables) were used for data analysis, calculations and chart generation. The verification of statistical hypotheses was performed using the chi-squared test. The results of the questionnaire were given in cross tables and on this basis, the statistics of the Pearson chi-square test, NW chi-square test and p-value (probability of not rejecting H0) were calculated. The study assumes a significance level of 0.05; thus, if one of the two p values (for Pearson's chi-square or NW chi-square) is less than this level, it is tantamount to reject H0 in favour of the alternative H1 hypothesis. The H0 hypothesis in each study states that the variables are independent, and the H1 alternative - that there is a statistically significant relationship between the variables. Subsequently, the level of dependence between the two studied variables was determined using Cramér's V.

The study was carried out in accordance with the Declaration of Helsinki guidance of the World Medical Association and Good Clinical Practice recommendations. The study was approved by the Bioethics Committee of the Academic Clinical Hospital of the University of Cologne, Germany. The study participants were provided with emails that included information about the study, ensuring the voluntary nature of participation. Completing and returning the questionnaires was considered as consent to participate, and data privacy was respected. The survey did not contain any data identifying the participants. Responses were collected on a specially prepared account of 'interankiety.pl', secured with a password, to which only the researcher had access.

Results

A group of 190 people participated in the study. Most of the participants were female (166 people, 87%), while 24 (13%) were male. The largest group were nurses in the age range between 51 and 60 (68 people, 36%) as well as between 41 and 50 (67 people, 35%). The fewest number of respondents were above 60 (11 people, 6%). Most nurses were married (120 people, 64%), and the fewest respondents were widows (10 people, 5%). Singles were (33 people, 17%), while 27 people (14%)

were divorced. In the study group, the largest number of respondents had a master's degree (82 people, 44%) or a bachelor's degree (54 people, 28%) in nursing. There were 40 people (21%) who completed secondary education in nursing. Most respondents declared 11 to 20 years of work experience in psychiatry (55 people, 29%), followed by nurses who reported 21 to 30 years of experience (37 people, 19%) and those with over 30 years of work experience in psychiatry (33 people, 17%). The smallest group were people with up to 1 year of experience (5 people, 3%).

The respondents were employed in psychiatric hospitals (170 people, 90%), social care homes (12 people, 6%), as well as in community psychiatric care (8 people, 4%).

The vast majority of respondents (80.48%) considered that working with mentally ill people had an adverse effect on their own health. The respondents predominantly complained about frequent stress (57.89%), sleep problems (42.10%), somatic disorders (26.84%), anxiety and fear (26.31%), and suicidal intentions (6.84%). A statistically significant correlation was found between the adverse effects of work on the health of the respondents and the intensity of suicidal thoughts (Cramér's $V = 0.326$; $p = 0.000$). Suicidal thoughts were most declared by nurses with suicidal intentions (92.31%, including 61.54 % of those with frequent suicidal thoughts), followed by nurses, whose work caused anxiety or fear (28.00%, including 8.00% of those with frequent suicidal thoughts), somatic disorders (24.49%, including 8.16% of those with frequent suicidal thoughts), sleep problems (22.79%, including 6.33% of those with frequent suicidal thoughts). People under frequent stress were the least likely to have suicidal thoughts (17.76%, including 5.61% of those who had such thoughts frequently). Respondents, who declared that work did not affect them, had no suicidal thoughts at all.

Every fifth respondent (20.48%) was diagnosed with mental disorders. A group of 24 people (12.63%) of them suffered from depression, while 5.26% had anxiety disorders. Just over 1.05% of the respondents struggled with addiction, while 0.52% of people suffered from schizophrenia. The occurrence of psychological disorders significantly correlated with the intensification of suicidal thoughts (Cramér's $V = 0.449$, $p = 0.000$). All respondents who had schizophrenia had frequent suicidal thoughts, while the vast majority of people without mental disorders had no such thoughts (92.5%). As many as 50.00% of people who regularly used psychoactive substances and 58.30% of nurses suffering from depression had suicidal thoughts (including 12.51% of respondents who had frequent suicidal thoughts). Every fifth respondent (20.00%) with anxiety disorders had suicidal thoughts from time to time.

The most burdensome work-related factors were aggression from patients (57.89%), duty overload (47.89%) and low salary (46.31%). To a lesser extent, the employees felt burdened with the relationships with their co-workers (23.15%) and the need to take actions against their conscience, e.g. violation of the patient's rights (the so-called stress of conscience) – 14.73%.

Non-professional factors, which additionally burdened the respondents, included health (29.47%), financial (27.89%), family (24.73%) and relationship (8.42%) problems. Only 9.47% of the respondents indicated no problems.

The nursing staff felt burdened enough to consider changing their place of work (43.15%), going on sick leave (40.00%) and taking their own life (3.15%). The respondents had problems with distancing themselves from work. Almost half (45.78%) of the respondents often thought about work in their free time, 25.26% had no time for themselves, while 19.47% had to abandon their plans. In the case of 22.63% of the respondents, work did not affect their private life. Fewer than a third of nurses (31.25%) who did not have time for themselves, 27.02% of nurses who had to change their plans and 17.44% of respondents who often thought of working in their spare time reported suicidal thoughts. No statistically significant correlation was determined between the variables.

A group of 29 nurses (15.26%) declared suicidal thoughts. A statistically significant correlation was found between the gender of the respondents and the severity of their suicidal thoughts (Cramér's $V = 0.133$; $p = 0.035$). Male nurses considered taking their own lives more often than female nurses. The study showed that 8.33% of male nurses had suicidal thoughts frequently, while 25% had such thoughts occasionally. Thus, it can be generally stated that as many as one in three men had suicidal thoughts. Women reported suicidal thoughts significantly less often. Only 3.31% of female nurses suffered from such thoughts frequently, while 9.06% had them from time to time. It is alarming that nurses with the least professional experience in psychiatry most often declared suicidal thoughts. 40.12% of nurses with up to 1 year of professional experience reported having suicidal thoughts. In contrast, 20.62% of nurses with 1–5 years of experience declared having such thoughts. There was no statistically significant correlation between professional experience in psychiatry and the intensity of suicidal thoughts.

The surveyed nurses most often coped with stress by talking to family or friends (59.47%), using relaxation techniques or having hobbies (57.89%). More than twenty percent of the respondents (23.68%) smoked cigarettes, while 11.57% drank alcohol or took sedatives

(10.57%). Only 4.73% were under psychological care. There was a correlation between the way of coping with stress and the intensity of suicidal thoughts (Cramér's $V = 0.323$; $p = 0.000$). Nurses taking sedatives reported frequent (15.82%) or occasional (47.41%) suicidal thoughts most often. This group was followed by those who drank alcohol to calm down (27.27% reported occasional suicidal thoughts, while 13.64% declared frequent thoughts of this type). It is interesting that 55.56% of people who consulted a psychologist had occasional suicidal thoughts. Respondents who used relaxation techniques and often talked to friends and relatives had almost no suicidal thoughts (90.91% of the surveyed nurses). Over half of the nurses (57.89%) declared that they could count on the support of their colleagues, supervisor (29.47%) and a psychologist (7.36%) at work, while 30.52% of the respondents did not receive support in the workplace (including 28.07% of those who had suicidal thoughts). The type of support significantly correlated with suicidal thoughts (Cramér's $V = 0.169$; $p = 0.0380$). More than 92% of the respondents, who received support from a psychologist or their supervisor, had no suicidal thoughts.

The respondents felt appreciated by the patients (41.05%) and their supervisor (23.15%). They also felt that they were an important part of the therapeutic team (24.73%). However, 37.89% of the respondents did not feel appreciated in the workplace. Data analysis revealed a statistically significant relationship between the sense of being appreciated at work and the intensity of suicidal thoughts (Cramér's $V = 0.166$; $p = 0.041$). Respondents who felt underappreciated suffered from suicidal thoughts (18.57%, including 10% of those with frequent thoughts of this type). Nurses, who were appreciated by their supervisors (93.18%) or felt an important part of the therapeutic team (91.18%), declared no suicidal thoughts most often.

Nurses employed in community care reported suicidal thoughts most often (25.00%), followed by those employed in a hospital (15.41%). No suicidal thoughts were declared by nurses employed in nursing homes for the mentally ill. There was found no statistically significant correlation between the type of workplace and the intensity of suicidal thoughts.

Nurses with a university degree reported suicidal thoughts more often (34.31%, including 19.50% of those with a master's degree) than nurses who completed secondary education (10.00%). Nonetheless, no statistically significant correlation was determined between the level of education and the intensity of suicidal thoughts.

The factors considered to influence the risk of suicide were distributed between the two genders as follows:

Male nurses were more often affected by the following suicide risk factors: sleep problems (50%), lack of support in the workplace (45.83%), drinking alcohol (37.50%), fear and anxiety (33.33%), suicidal intentions (16.66%), depressive disorders (16.66%), taking sedatives (16.66%) and schizophrenia (4.16%). In addition, they more often declared being burdened with aggression from patients (66.66%), excessive work duties (54.16%), low remuneration (54.16%), financial difficulties (33.33%) and the need to take actions against their conscience (16.66%).

The most common risk factors among female nurses included: frequent stress (58.43%), stress-related somatic disorders (27.71%), smoking (24.09%), and anxiety disorders (5.42%). Additionally, they felt burdened with health issues (31.30%), family problems (25.30%) and relationships with colleagues (24.09%).

Discussion

More than half of the respondents (57.89%) complained about the frequent stress related to an aggressive patient, and 17.76% of them declared suicidal thoughts. Aggression by patients with mental disorders is the most common stressor among psychiatric care workers, which was confirmed by an Israeli study, in which 88.6% of nurses experienced verbal aggression and 56.1% – physical aggression in the last year [5]. Our own results were confirmed in Taiwanese research, which showed that excessive work stress in suicidal thoughts among 10.5% of nurses [6]. Constant stress can lead to the development of mental disorders, taking up stress-reducing risky behaviours (smoking, drinking alcohol) or insomnia. Author's own research showed that nurses often complained of sleep disorders (42.10%), and 22.79% of them had suicidal thoughts. These results are similar to the observations of Zdanowicz et al. [7], according to which 47.8% of the surveyed nurses suffered from sleep disorders. In addition, according to An et al. [8], as many as 69.7% of psychiatric nurses suffered from sleep disorders. Sleep disorders lead to an increase in the intensity of suicidal thoughts and intentions among nurses [9], increasing the risk of suicide even 5-fold [10]. The type of sleep disorder and their exact work-related causes were not included in the study because all sleep disorders, regardless of the cause, had a negative impact on the well-being of the subjects.

More than 12% of the surveyed nurses suffered from depression. Among them, as many as 58.30% had suicidal thoughts. These results indicate that depression is a significant risk factor for suicide, which was also noticed by Australian researchers who proved that 48% patients suffering from depression reported suicidal

thoughts throughout their lives. Moreover, 16% of them reported a suicide attempt [11].

Most of the surveyed nurses who used sedatives had suicidal thoughts (62.23%). This is alarming, since research shows that nurses are at a significantly higher risk of drug overdose than representatives of other paramedical professions [12]. According to American researchers, 36.2% of nurses who committed suicide did so by overdosing on drugs [4]. The same was reported for 42% of English female nurses [3]. This was linked to the easy availability of drugs.

A group of 22 respondents (11.57%) drank alcohol in order to de-stress, and 40.91% of them had suicidal thoughts. Many scientific studies show that regular alcohol consumption increases the risk of depression, suicidal thoughts and fatal suicide attempts [13]. In Great Britain, more than 40% of nurses who committed suicide had a drinking problem, over fifty percent of all suicides are associated with alcohol [14]. A study conducted on a group of 1080 Polish nurses revealed that people with a reduced ability to adapt to difficult situations (resistance) were more prone to engaging in harmful behaviours, such as drinking alcohol and smoking cigarettes [15].

Among smoking nurses, 26.67% had suicidal thoughts. Smoking is an important factor in the development of depression, schizophrenia and neurological diseases. A worrying trend of increasing nicotine use is observed among health care workers. According to Mexican researchers, almost 30% of nurses smoke cigarettes [16]. In Poland, 33.6% of nurses working in surgical wards smoke cigarettes [17]. The risk of depression among smoking women is three times higher than among non-smoking women. In addition, among men smoking a pack of cigarettes a day, the risk of depression increases by 500% [16]. Notably, smoking 15 or more cigarettes a day increases the risk of suicide four times [18].

Talking to family or friends and having a hobby were the most effective methods of relieving stress and reducing the frequency of suicidal thoughts (more than 91% of people declared no suicidal thoughts). These observations are confirmed by data, according to which 80% of people at risk of suicide received effective help from 'non-professionals' [19].

More than half (55.56%) of nurses who occasionally manifested suicidal thoughts seek help from a psychologist, and 44.44% of respondents without such thoughts seek support from a psychologist. A disturbing finding is that no nurse with frequent suicidal thoughts seeks professional support. The surveyed nurses seek professional help less frequently than American nurses who manifested suicidal thoughts (72.6%) [20]. This seems all the more surprising as psychiatric nurses should

be more aware of the importance of professional help in crisis.

Male nurses declared suicidal thoughts much more often than female nurses. Although within the general population, a greater risk of suicide is observed among men than women, women dominate the medical professions [21]. The results of the author's own research suggest that male nurses are burdened with a higher risk of suicide than female nurses. Previous studies on nurses' suicides have focused on the analysis of this problem in relation to the entire professional group. Our own results indicate that male nurses are burdened with a higher risk of suicide than nurses, which sheds a new perspective on the problem of suicide in this group. The study showed a higher incidence of mental illness, frequent undertaking of risky behaviours that positively correlate with suicide attempts, and a greater severity of suicidal thoughts among male nurses than among nurses. A significant percentage of suicidal thoughts among the surveyed male nurses might be associated with excessive professional expectations, e.g. higher prestige, greater professional autonomy, salary, and promotion opportunities [22]. In Poland, nurses have low salaries, few opportunities for promotion and little autonomy despite improving their qualifications, which negatively affects the level of satisfaction, particularly among male nurses [23, 24]. This was confirmed by the author's own research, which showed that 54.16% of male nurses felt psychological discomfort related to low pay, and 37.50% felt unappreciated at work. These results are similar to the research conducted by Kociuba-Adamczuk [24], in which 44% of nurses were dissatisfied with their earnings, and 34% were very dissatisfied. Although nurses in Poland are more appreciated by the society than doctors and academics [25], they do not actually experience this in their daily practice [24]. In Canadian studies, male nurses felt more unappreciated and discriminated against than female nurses, which was associated with lower job satisfaction and a higher probability of quitting their profession [26]. Male nurses more often had to perform duties that put more strain on the body than their colleagues – nurses.

Receiving support in the workplace increases job satisfaction and reduces stress [27]. Conflicts and lack of support from supervisors lead to emotional exhaustion in 30% of employees [28] and to excessive stress in 34.89% of employees [29]. The supportive attitude of the supervisor significantly influences the balance between work, personal life and mental health of a nurse [30]. This is confirmed by the author's own research, which showed that 92.58% of people who received support from their superior had no suicidal thoughts. In comparison, only 71.93% of people without such

support had no self-destructive thoughts. Hence, the supervisor plays an important role in the prevention of suicide in the workplace by creating appropriate conditions and an atmosphere conducive to the mental and physical wellbeing of the employees. The supervisor plays an important role in satisfying the need for recognition among employees [27]. An appreciated employee does their job better, has a lower absence rate, feels happier and exhibits a positive life attitude. The respondents, who were appreciated for their work, had a lower level of suicidal thoughts than nurses who did not feel appreciated.

It is crucial for the comfort of working nurses to maintain a balance between their private life and work. Shift work, night work, overtime and sudden changes to the work schedule are all factors which make it difficult to build social relationships. They also lead to family conflicts and lower the quality of life. Long-term disturbance of this balance results in stress, mental disorders, abuse of psychoactive substances and frequent consumption of unhealthy food [31–33]. More than 45% of the surveyed psychiatric nurses often thought about work in their free time, and over 31% of those who did not have free time as a result of their work displayed suicidal thoughts. This is related to the fact that instead of regenerating in their free time, nurses use up energy to reflect on work, which leads to sleep disorders and the development of depression and anxiety. Additionally, it promotes burnout [34].

Conclusions

The results of the current research confirmed that nurses belong to professions associated with an increased risk of suicide.

1. In the study group, the most common risk factors for suicide, which positively correlated with the occurrence of suicidal thoughts, were: suicidal intentions (92.31%), taking sedatives (63.16%), depression (58, 30%), addiction to psychoactive substances (50%), alcohol consumption (40.91%), lack of workplace support (28.07%), anxiety and restlessness caused by work (28.00%).
2. In the study group, male psychiatric nurses experienced more suicidal thoughts than female nurses (one in three surveyed male nurses). Due to the small number of male nurses, the obtained results are not sufficient to draw any final conclusions.
3. Male nurses were more likely to be burdened with suicide risk factors (suicidal intentions, depression, sleep problems, taking sedatives, alcohol consumption, and lack of support at work).
4. Psychiatry work experience, place of employment, level of education, age and marital status of the re-

spondents had no influence on the severity of suicidal thoughts.

5. Respondents, who received support from their supervisor, a psychologist or friends, experienced the lowest percentage of suicidal thoughts.
6. Working in psychiatry had a significant impact on the mental health of the respondents. The lack of suicidal thoughts was declared by people who said that work had no effect on their health.

The present study has several disadvantages. Relatively few respondents took part in the study; therefore, the study group was not representative of the population of psychiatric nurses employed in Poland. It is not known whether the reason for the low return of the questionnaires was a fear of admitting to suicidal thoughts and further alleged repercussions. It is possible that the management of the branches did not provide the questionnaire to its employees. Larger-scale studies are needed to confirm preliminary results.

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