

Emotions Related to Death among Nurses Working in the Intensive Care Unit

Emocje związane ze śmiercią wśród pielęgniarek pracujących w oddziale intensywnej terapii

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Abstract

Introduction. Nurses working in intensive care units often encounter the death of their patients, which affects their emotional state, and then not only their work but also their personal lives.

Aim. The aim of the study is to present the most common emotions towards death in nurses caring for life-threatening patients.

Material and Methods. The cross-sectional study was conducted on a group of 108 nurses working in the intensive care unit of the University Hospital in Krakow. Respondents completed a proprietary questionnaire based on the standard tool, the Scale of Feelings, in which they marked the intensity of individual emotions experienced in connection with death. The data was developed based on the instructions of the authors of the tool and, using the capabilities of the Statistica 12 package, the existing dependencies were presented.

Results. The most common emotion related to death, in terms of basic emotions that accompanied the respondents, was fear ($\bar{x}=4.45$) and sadness ($\bar{x}=4.08$). In the subcategories of basic emotions, the most frequently declared feelings were: sadness ($\bar{x}=5.69$), grief ($\bar{x}=5.43$) and anxiety ($\bar{x}=4.71$). There was no correlation between the emotions and the respondents' age or their declared professional experience ($p>0.05$). Only the level of anger was significantly more frequent in the group of respondents who rarely experienced death at work, i.e. less than 10 deaths ($p=0.03$).

Conclusions. The difficult experience of death for nurses working in the intensive care unit most often triggered fear and sadness in them. It is therefore necessary to conduct further research to determine the exact attitudes towards death among medical personnel who come into contact with death in order to reduce their negative impact on the work and personal lives of carers of dying people. (JNNN 2023;12(1):17–23)

Key Words: death, critical care, nurses

Streszczenie

Wstęp. Pielęgniarki pracujące w oddziałach intensywnej terapii często spotykają się ze śmiercią swoich pacjentów, która to wpływa na ich stan emocjonalny, który wpływa nie tylko na ich pracę ale też życie osobiste.

Cel. Celem pracy jest przedstawienie najczęściej występujących emocji wobec śmierci u pielęgniarek opiekujących się pacjentami w zagrożeniu życia.

Materiał i metody. Badanie przekrojowe przeprowadzono na grupie 108 pielęgniarek pracujących w oddziale intensywnej terapii Szpitala Uniwersyteckiego w Krakowie. Respondenci wypełniali autorski kwestionariusz oparty o standardowe narzędzie Skala Uczuć, w którym zaznaczali natężenie poszczególnych emocji przeżywanych w związku ze śmiercią. Dane opracowano w oparciu o instrukcję autorów narzędzia i korzystając z możliwości pakietu Statistica 12 przedstawiono występujące zależności.

Wyniki. Najczęściej występującą emocją w związku ze śmiercią, w zakresie emocji podstawowych, jakie towarzyszyły badanym był strach ($\bar{x}=4,45$) oraz smutek ($\bar{x}=4,08$). W podkategorii emocji podstawowych, najczęściej deklarowanymi

uczuciami były: smutek ($\bar{x}=5,69$), żal ($\bar{x}=5,43$) oraz niepokój ($\bar{x}=4,71$). Nie ujawniono korelacji występujących emocji zarówno z wiekiem badanych jak też ich deklarowanym doświadczeniem zawodowym ($p>0,05$). Jedynie poziom gniewu występował istotnie częściej w grupie badanych, którzy rzadziej doświadczali śmierci w swojej pracy tj. mniej niż 10 zgonów ($p=0,03$).

Wnioski. Trudne doświadczenie śmierci dla pielęgniarek pracujących w oddziale intensywnej terapii najczęściej wyzwało u nich strach i smutek. Konieczne jest więc dalsze prowadzenie badań, aby określić dokładne postawy wobec śmierci wśród personelu medycznego stykającego się ze śmiercią by zmniejszyć negatywny ich wpływ na pracę oraz życie osobiste opiekunów osób umierających. (PNN 2023;12(1):17–23)

Słowa kluczowe: śmierć, intensywna opieka, pielęgniarki

Introduction

Intensive care units are places where patients in life-threatening conditions are treated, and the role of a nurse in patient care seems to be special, because while caring for the needs of the care subject, she/he should watch over a humanistic approach to the patient. The emotional state of a nurse is not without significance for ensuring proper care of patients, whose treatment often ends in failure.

In studies on attitudes towards death of healthcare workers, the emotional component is most often dominated by: sadness and fear [1,2]. While sadness concerns the attitude towards death as an abstract phenomenon, or may be associated with the passing of a loved one, fear most often concerns the prospect of one's own death. The emotional involvement of medical personnel in the context of death is an interesting phenomenon due to the frequent contact of the nursing staff of intensive care units with the death of patients [3].

The aim of the study is to present the most common emotions towards death in nurses caring for life-threatening patients. The obtained results will allow to assess the extent to which help to nurses in their cognitive and emotional reception of death, which they encounter on a daily basis, could be useful.

Material and Methods

A cross-sectional study on declared emotions related to death was conducted using a proprietary questionnaire supplemented with the Scale of Feelings Related to Death based on the "Feelings" scale [4]. Modification of the tool consisted in adding instructions for the subject so that the declared emotions referred only and exclusively to the situation of experiencing death. The authors of the standardized tool gave their consent via e-mail to its use in the form presented by the authors.

The questionnaire consists of twenty-four feelings, which have been categorized into six categories of basic emotions, according to the interpretation of the tool by its authors [4]. The exact categories are presented in Table 1.

Table 1. Categories of emotions

Basic emotions	Subclasses of emotions
Joy	Joy
	Satisfaction
	Cheerfulness
	Happiness
Love	Love
	Tenderness
	Devotion
	Attachment
Fear	Fear
	Anxiety
	Apprehension
	Disquiet
Anger	Anger
	Spite
	Rage
	Restlessness
Sadness	Sadness
	Misfortune
	Breakdown
	Depression
Shame	Shame
	Humiliation
	Regret
	Guiltiness

For the research tool used, its reliability was calculated, where Cronbach's α was 0.88. This result indicates the high reliability of the questionnaire used. Respondents provided answers on a continuous scale from 1 to 7, where they indicated the intensity of feeling related to death for each category of emotions. The range of possible answers, according to the theory of statistics, was considered as a continuous scale. Presenting the data on a continuous scale made it possible to analyze the correlation between nurses' emotions related to death and continuous variables such as age or seniority. The tool did not distinguish between attitudes towards one's

own death, the death of a loved one or another person, e.g. a patient. It was therefore assumed that the examined emotions concern death in general as such. The obtained data were encoded in an MS Excel spreadsheet and then subjected to statistical analysis in the Statistica 12 program. Quantitative variables were analyzed using the methods of descriptive statistics (arithmetic mean, median, standard deviation, frequency tables). The answers provided were grouped according to the key of the questionnaire used, calculating the arithmetic mean of the answers that make up a given emotion. The value of 4.5 was assumed as the value indicating the occurrence of a given emotion, where 4 meant the answer “sometimes” and 5 “often”. After preparing the research tool and the research project, permission to carry it out was sought from the heads of the department and the management of the unit where the study was planned. Permission to conduct the study was also requested from the Bioethics Committee of the Krakow Academy of Andrzej Frycz Modrzewski. Consent to conduct the study was obtained (KBKA/18/0/2015).

The study was conducted in the period 1–30 March 2015. The study was conducted in the Clinical Department of Anaesthesiology and Intensive Care of the Trauma and Emergency Medicine Center of the University Hospital in Krakow. The intensive care unit of Trauma Centre of the University Hospital in Krakow was a traumatology and neurotraumatology unit, it consisted of 30 intensive care stations. Nurses in the ward worked in a two-shift, twelve-hour system. On average, two patients were cared for by one nurse.

The prepared questionnaire was distributed to the nurses in the ward, asking them to answer the questions asked in it. Completion of the questionnaire was unsupervised. The completed questionnaires were submitted by the respondents in a designated place, observing the rules of anonymity (urn). In total, 121 completed questionnaires were collected, of which 108 were analyzed. 13 questionnaires were rejected due to incompleteness.

The intensity of individual emotions was divided into three categories: I — emotion does not occur (never/very rarely) II — the emotion occurs periodically (rarely/sometimes) III — the emotion is permanent (often/very often/always). The categorization was carried out according to the principle: I (mean from 0 to 2.0), II (mean from 2.1 to 4.0), III (mean from 4.1 to 7.0).

The parametric Pearson correlation coefficient test was used to compare quantitative variables. To compare the quantitative variables (intensity of emotions) with the qualitative variable (number of deaths during shifts), the t-test was used for group-independent samples. Statistical significance was determined at the level of $p < 0.05$.

Results

The study group consisted of a total of 108 people. There were 99 women (92%) and 9 men (8%). The age of the respondents ranged from 22 to 61 years. The mean age was 34 years. The median age of the subjects was 32 years. The second and third quartiles were occupied by people aged 26–40. More than half of the respondents were married. 39% were unmarried and nearly 10% were respondents living in relationships other than marriage. Nearly half of the respondents lived in cities with more than 100,000 inhabitants. Rural residents accounted for less than 40%. The rest lived in smaller towns. The work experience of the surveyed nurses ranged from 2.5 months to 31 years. On average, it was about 10 years. The median work experience in ICU was 8.5 years. The work experience of nurses in the intensive care unit was 5 years and the median was 2 years. Respondents were also asked about their religiousness. A large majority (82%) described themselves as “religious”.

The highest rate of the occurrence of emotions related to death, for which the arithmetic mean of a given emotion was taken, is characterized by fear ($\bar{x}=4.45$) and sadness ($\bar{x}=4.08$). Least often in connection with death, the respondents felt joy ($\bar{x}=1.56$). Detailed results of declared basic emotions are presented in Table 2.

Table 2. Descriptive statistics of declarative emotions towards death

Variable	\bar{x}	SD	Me	Min	Max
Joy	1.56	0.97	1	1	5.25
Love	3.06	1.43	2.75	1	7
Fear	4.45	1.40	4.50	1	7
Anger	3.82	1.24	3.75	1	6.75
Sadness	4.08	1.28	4	1.75	7
Shame	2.95	0.88	2.75	1	6

\bar{x} — mean; SD — standard deviation; Min — minimum value; Max — maximum value; Me — median

In the subclasses of basic emotions, the most common feelings nurses in connection with death showed: sadness ($\bar{x}=5.69$), regret ($\bar{x}=5.43$) and anxiety ($\bar{x}=4.71$). Least often, the respondents felt cheerfulness ($\bar{x}=1.46$) and contentment ($\bar{x}=1.52$). The exact data are presented in Table 3.

Based on the adopted categorization of the frequency of the occurrence of emotions, the emotions appearing permanently in connection with death turned out to be: fear (61% of the respondents) and sadness (45% of the respondents). The emotions experienced periodically include: shame (76% of respondents), anger (56% of respondents) and love (44% of respondents). As a result of death, there is no feeling of joy among nurses (81%

Table 3. Descriptive statistics of basic emotions and subclasses of emotions

Variable	\bar{x}	SD	Me	Min	Max
Joy					
Joy	1.63	1.19	1	1	5
Satisfaction	1.52	1.08	1	1	5
Cheerfulness	1.46	1.11	1	1	6
Happiness	1.62	1.15	1	1	6
Love					
Love	2.72	1.79	2	1	7
Tenderness	2.99	1.77	3	1	7
Devotion	3.00	1.67	3	1	7
Attachment	3.56	1.63	4	1	7
Fear					
Fear	4.25	1.66	4	1	7
Anxiety	4.31	1.79	4	1	7
Apprehension	4.55	1.61	5	1	7
Disquiet	4.71	1.47	5	1	7
Anger					
Anger	3.85	1.60	4	1	7
Spite	4.25	1.52	4	1	7
Rage	3.44	1.76	3	1	7
Restlessness	3.74	1.62	4	1	7
Sadness					
Sadness	5.69	1.36	6	1	7
Misfortune	4.01	1.88	4	1	7
Breakdown	3.94	1.67	4	1	7
Depression	2.66	1.64	2	1	7
Shame					
Shame	1.70	1.22	1	1	6
Humiliation	1.90	1.30	1	1	6
Regret	5.43	1.25	6	1	7
Guiltiness	2.78	1.40	3	1	6

\bar{x} — mean; SD — standard deviation; Min — minimum value; Max — maximum value; Me — median

of respondents). Accurate data for all basic emotions are presented in Table 4.

Emotions about death do not correlate with either the age of nurses or their work experience in the intensive care unit ($p > 0.05$). The results of the Pearson correlation test are presented in Table 5.

Among the surveyed nurses' emotions towards death, the level of anger differed significantly in the groups that experienced more than ten deaths during their work and less than ten deaths ($p = 0.03$). The test results for all basic emotions are presented in Table 6.

Table 4. A cumulative count table of basic emotions related to death

Intensity category	Frequency	Class	Joy		Love		Fear		Anger		Sadness		Shame	
			N	%	N	%	N	%	N	%	N	%	N	%
I		0–1.0	61	56.48	10	9.26	2	1.85	2	1.85	0	0	1	0.93
		1.1–2.0	27	25.0	22	20.37	4	3.70	6	5.56	5	4.63	16	14.81
		Total	88	81.48	32	29.63	6	5.55	8	7.41	5	4.63	17	15.74
II		2.1–3.0	11	10.19	26	24.07	14	12.96	20	18.52	22	20.37	52	48.15
		3.1–4.0	5	4.63	22	20.37	22	20.37	40	37.04	32	29.63	30	27.78
		Total	16	14.82	48	44.44	36	33.33	60	55.56	54	50	82	75.93
III		4.1–5.0	3	2.78	18	16.67	32	29.63	23	21.30	24	22.22	6	5.56
		5.1–6.0	1	0.93	7	6.48	22	20.37	11	10.19	17	15.74	3	2.78
		6.1–7.0	0	0	3	2.78	12	11.11	6	5.56	8	7.41	0	0
	Total	4	3.71	28	25.93	66	61.11	40	37.05	49	45.37	9	8.34	

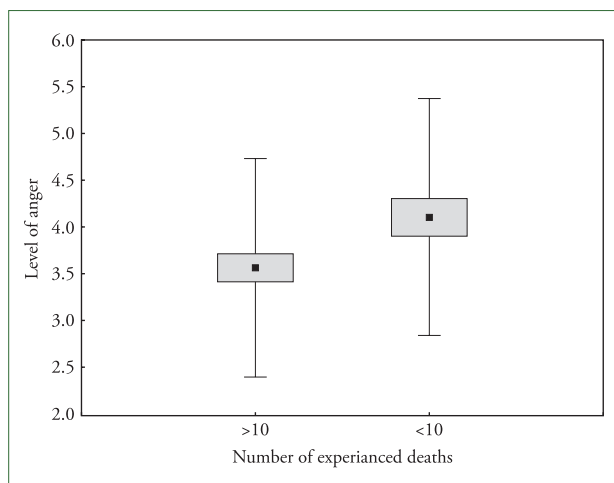
Table 5. Correlation matrix emotions vs. age and work experience in ICU

Variable	Joy	Love	Fear	Anger	Sadness	Shame
Age	-.0972 p=.317	.0415 p=.670	.1547 p=.110	-.0546 p=.574	.0861 p=.376	-.0221 p=.821
Work experience in ICU	-.1110 p=.253	-.1161 p=.231	.1622 p=.093	.0593 p=.542	.0322 p=.741	.0740 p=.447

Table 6. t-test results for groups experienced 10 or less vs. more than 10 deaths

Emotion	Nurses who experienced 10 or less than 10 deaths (N=44) Mean (SD)	Nurses who experienced more than 10 deaths (N=64) Mean (SD)	t	p
Joy	1.6 (0.9)	1.6 (1.0)	-0.1	0.95
Love	3.0 (1.5)	3.1 (1.4)	0.2	0.87
Fear	4.7 (1.4)	4.3 (1.4)	-1.4	0.17
Anger	4.1 (1.3)	3.6 (1.2)	-2.3	0.03
Sadness	4.3 (1.4)	3.9 (1.2)	-1.6	0.12
Shame	3.1 (1.0)	2.8 (0.7)	-1.4	0.15

Researched nurses with the experience of fewer than 10 deaths at work felt higher levels of anger (Figure 1).

**Figure 1.** Level of anger

Discussion

Previous studies of emotional reactions to death and personal confrontation with death mainly concern the staff of hospices and palliative care units [5–7]. However, death is also common for people caring for life-threatening patients in critical care units. This is undoubtedly a different experience, because most often these patients are not in a terminal state, hence the staff takes part in a difficult fight for their lives [8]. Nevertheless, the experience of working with the dying is an experience that teaches respect for life, humility and sensitivity, as well as realizes the fragility of human

existence, regardless of the situation in which the care subject dies [9,10]. On the one hand, researchers emphasize the high level of fear of death among nurses [11,12]. On the other hand, the nurses surveyed at the time of the patient's death also experienced peace, treating death as the natural end of life. However, this may be the result of satisfaction with the end of the patient's suffering, for whom in the situation of intensive care he experienced more suffering than the potential profit from the therapeutic procedures. Nyklewicz puts forward the thesis that the level of anxiety faced by most nurses is above average [13]. In the author's study, the most prominent emotions in nurses working in the intensive care unit are: fear (61% of the respondents experience it often, very often or always, in connection with the experience of death) and sadness (45% of the respondents feel it often, very often or always, witnessing death). Similarly, in the Pérez-de la Cruz study, health science students showed a high level of death anxiety [14]. Thus, these results correspond with the results of our own study.

In the present study, joy (4%) and shame (8%) were the least frequently identified emotions of nurses. Despite a small percentage, the fact of experiencing joy in connection with death is puzzling. However, in the context of futile therapy, it may seem justified. Taking into account the differences in the number of deaths experienced at work, our study showed differences in the feeling of anger in the context of death. Nurses with fewer than 10 deaths on duty were more likely to experience anger than those with more than 10 deaths. This observation may be related to greater life experience and general greater acceptance of mortality by people

with more life experience. For example, Zhang et al. found a correlation between nurses' attitudes towards death and their subjective well-being in life [15]. Other observations were presented in the study by Pehlivan et al., where the experience of the death of a loved one had a significant impact on both the feeling of fear related to death and the negative attitude towards death, dying and euthanasia [16]. In the study by Gaworska-Krzemińska et al., attitudes towards death correlate with work experience in ICU of the respondents, which was not observed in our own study [17]. In the study by Üstükuş and Eskimez, it was shown that the number of deaths experienced by patients correlates with a lower level of fear of death and an avoidant attitude [18]. Similarly, Barnett et al. found that among hospice nurses, acceptance of their work in caring for the dying is associated with a lower fear of death and death avoidance [8].

As for the specificity of the ward in which the respondents worked, in the Turkish study the lowest level of fear of death was felt by nurses employed in emergency and intensive care wards [16]. In turn, in the study of Kraitenberg et al. conducted among haematologists, i.e. people who often come into contact with death, no links were found between the exposure to death and suffering and attitudes towards the death of personnel [19].

The experience of a patient's death translates into the existential approach of nurses and other caregivers of the dying. They may feel fear for their own lives and for the lives of their loved ones, manifested by the fear of death. Caring for the dying causes nurses a sense of uncertainty and confusion. One of the methods of dealing with these difficult experiences is sharing your experiences with your loved ones [10]. In many studies, the authors point to knowledge deficits in the field of psychology and personality limitations as the main determinants of experiencing stress related to the death of patients. The respondents themselves also see a lack of psychological preparation for contact with the patient's death. Researchers point to the need to work on oneself in order to develop a mature personality and to expand skills in the care of a dying patient [9,10,20,21].

Conclusions

The difficult experience of death for nurses working in the intensive care unit most often triggered fear and sadness in them. Emotional reactions related to death did not depend on age or the work experience in ICU of the respondents. Feeling of anger about death was significantly more common among nurses who experienced fewer deaths during their professional career. It is therefore necessary to conduct further research to

determine the exact attitudes towards death among healthcare workers who come into contact with death in order to reduce their negative impact on the work and personal lives of carers of dying people.


Implications for Nursing Practice

Nurses caring for patients in life-threatening situations very often face the death of their patients. Their mental state is not insignificant for the quality of their care. Therefore, it is very important to know the feelings related to the death of nurses, so that in practice it is possible to take action to ensure the psychological comfort of the work of nursing staff both in situations related to the end of life of patients and routine care for other patients requiring professional care.

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