

## Health-promoting Behaviours and Positive Orientation Assessment among Nurses of Neurology and Rehabilitation Departments

### Zachowania sprzyjające zdrowiu oraz ocena orientacji pozytywnej wśród pielęgniarek oddziałów neurologii i rehabilitacji

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#### Abstract

**Introduction.** Health behaviours of nurses depend on external and personality factors, they are constantly changing under the influence of experience and acquired knowledge. Presenting the right attitudes towards health can have an impact on conducting effective health education.

**Aim.** Assessment of health-promoting behaviour and positive orientation among nurses.

**Material and Methods.** The research was carried out on a group of 79 nurses of the neurology and rehabilitation departments. The method of diagnostic survey was used with the use of the Health Behaviour Inventory (HBI) questionnaire, the Positive Orientation Scale questionnaire and the self-authored questionnaire.

**Results.** In the analysis of the HBI survey, sten 5 and 4 (36 people) obtained the highest number of respondents, which define the average level of health behaviours on the border of low; the highest rated were positive mental attitude and preventive behaviour, the lowest were health practices. In the Positive Orientation Scale, the greatest number of people obtained sten 4 and 6 (31 people) — the average level of positive orientation, the majority of respondents obtained average results in terms of attitude to the future (57 people). The positive orientation results remained in a statistically significant mean correlation with the results of health behaviours and positive mental attitude, and in a low correlation with the results of health practices ( $p < 0.05$ ).

**Conclusions.** The respondents present an average level of health behaviours. Positive mental attitude and preventive behaviour were the most preferred. Most of the nurses showed a moderate level of positive orientation and an indifferent attitude to the future. (JNNN 2022;11(2):49–58)

**Key Words:** health behaviours, nurses, positive orientation

#### Streszczenie

**Wstęp.** Zachowania zdrowotne pielęgniarek uzależnione są od czynników zewnętrznych i osobowościowych, podlegają ciągłym zmianom pod wpływem doświadczenia i zdobywanej wiedzy. Prezentowanie właściwych postaw wobec zdrowia może mieć wpływ na prowadzenie skutecznej edukacji zdrowotnej.

**Cel.** Ocena zachowań sprzyjających zdrowiu i orientacji pozytywnej wśród pielęgniarek.

**Materiał i metody.** Badania przeprowadzono na grupie 79 pielęgniarek oddziałów neurologii i rehabilitacji. Zastosowano metodę sondażu diagnostycznego z użyciem kwestionariusza Inwentarza Zachowań Zdrowotnych (IZZ), kwestionariusza Skali Orientacji Pozytywnej oraz ankiety własnego autorstwa.

**Wyniki.** W analizie ankiety IZZ najczęściej badanych uzyskało sten 5 i 4 (36 osób), które określają przeciętny poziom zachowań zdrowotnych na granicy niskiego, najwyższej oceniono pozytywne nastawienie psychiczne i zachowania profilaktyczne, najniższej praktyki zdrowotne. W Skali Orientacji Pozytywnej najczęściej osób uzyskało sten 4 i 6 (31 osób) — przeciętny poziom orientacji pozytywnej, większość respondentów uzyskało przeciętne wyniki nastawienia do przyszłości (57 osób). Wyniki orientacji pozytywnej, pozostawały w istotnej statystycznie, średniej korelacji z wynikami zachowań zdrowotnych i pozytywnego nastawienia psychicznego oraz w korelacji niskiej z wynikami praktyk zdrowotnych ( $p < 0,05$ ).

**Wnioski.** Badani prezentują przeciętny poziom zachowań zdrowotnych. Najbardziej preferowane było pozytywne nastawienie psychiczne i zachowania profilaktyczne. Pielęgniarki w większości przedstawiały średni poziom orientacji pozytywnej i obojętne nastawienie do przyszłości. (PNN 2022;11(2):49–58)

**Słowa kluczowe:** zachowania zdrowotne, pielęgniarki, orientacja pozytywna

## Introduction

Health as a multidimensional concept, characterized by a subjective feeling of internal balance and harmony with the environment, is defined as the state of complete physical, mental and social well-being, and requires the human being to take actions ensuring his proper functioning [1]. These actions, called health behaviours, are defined differently by scientists who deal with aspects of human life. Some authors define the social nature of health behaviours which, as directly and indirectly initiated and performed by people, strengthen or impair the maintenance of physical or mental health. These behaviours are common and are the result of the individual's socialization experiences gained through interactions with the environment [1,2].

Understanding the determinants of health behaviour is nowadays an indispensable element of the professional practice of specialists dealing with every field of human activity that has an impact on health [3].

Health behaviours are influenced by both the experiences of the individual and the influence of the environment, because a person lives, acts and develops in relation to the surrounding world [4]. Acquiring health-promoting habit patterns from an early age, instilled first by parents, and yearser also by caregivers and the peer environment, pays off in having the potential to take action to maintain health.

Professionally active health care workers in the performance of their duties are exposed to various dangerous and burdensome factors associated with undesirable consequences for health. In economic statistics for 2017 analysing the incidence rate of occupational diseases, the health care and social welfare sector was in the 5<sup>th</sup> place and amounted to 13.7 per 100.000 of the employed [5,6].

Among doctors, nurses, paramedics and support staff, infectious diseases have the highest percentage, including tuberculosis and hepatitis (viral hepatitis, usually type C); dentists most often have problems with diseases of the peripheral nervous system and the musculoskeletal system. Most cases (64.3%) of the disease took place in hospitals [6]. The systematic decline

in reported cases of occupational diseases in health care is probably the result of the increased epidemiological awareness of employees and knowledge about threats, the use of appropriate procedures and the improvement of the supply of specialist equipment [6].

Occupational exposure of medical workers to the harmfulness of biological factors, both in terms of health and economy, sociology and law, has become a problem so important that Poland, following the example of EU regulations, introduced legal regulations specifying the obligations of health care employers in the field of occupational health and safety when performing procedures that risk being injured by sharp tools; it regulated, among others, the issue of registration of exposure to blood borne pathogens [7]. Despite the introduction of these regulations, it is estimated that around 80% of employees do not report occupational exposure; the reason for such a state of affairs is both one's ignorance and downplaying the matter, as well as fear of consequences on the part of the employer [8].

The concept of positive orientation, formulated in 2009 by the Italian psychologist Gian Vittorio Caprara and his colleagues, is part of the trend of positive psychology [9]. It assumes that people have specific predispositions that allow them to positively perceive themselves, their lives and the future. Thanks to these inclinations, despite failures and adversities, they can cope better with them.

Strengthening such well-being allows for maintaining health, stronger motivation to face problems, and developing effective models of solving crisis situations. An important reason for the development of positive psychology was the result of many years of observation, on the basis of which it was concluded that optimism and the ability to experience happiness and joy immunize a person not only in the mental sphere, but also physically, ensuring greater satisfaction with life [10].

The aim of the study was to assess health-promoting behaviours and positive orientation of nurses working in hospital neurology and rehabilitation wards.

## Material and Methods

The study was conducted among male and female nurses from inpatient rehabilitation and neurology departments. The respondents who have the current right to practice a profession and are professionally active were qualified to participate in it. Participation in the study was anonymous.

79 people participated in the study. Women constituted a much larger group — 74, men — 5. The average age of the respondents was 42.8 years. Women represented a more advanced age group with an average of 43.2 years, while the average of men — 36.6 years. Most of the people had higher education: bachelor’s — 30 and master’s — 26. Marital status and family status of the respondents were most frequently represented by married people — 52 people and with two children — 30 people. Most respondents lived in a city with over

100.000 inhabitants — 40 people, the least in a city up to 20.000 inhabitants — 5 people (Table 1).

The respondents were divided into five groups of work experience: up to 10 years, 11–20 years, 21–22 years, 26–30 years and over 30 years. The average work experience in the profession was — 19.7 years. The most numerous group were respondents with work experience up to 10 years — 23 people and 26–30 years — 15 people. The smallest number with 11–20 years of experience — 13 people. The categories of work experience in the department were divided into three groups: up to 10 years, 10–19 years, 20 and more years. The average work experience in the ward was — 11.8 years. The most numerous group were respondents with 10–19 years of work experience in the ward — 34 people. The smallest number of 20 or more years — 15 people. 36 people indicated that they had a specialization. Most of them had a conservative specialization — 18 people, specialization in anaesthesiology and intensive therapy — 5 people, surgery — 3 people, and neonatology and internal medicine — 2 people each. The rest are individual cases. The respondents most often indicated employment under an employment contract — 66 people and one place of employment — 61 people. The least for three and more places — 4 people. The most popular form of work was a 12-hour shift system — 74 people. The least frequently indicated was the 8-hour work system — 2 people (Table 2).

**Table 1.** Socio-demographic features of the respondents

Variable	N	%
<b>Gender</b>		
Women	74	93.7
Men	5	6.3
<b>Age</b>		
Up to 30 years	15	19.0
31–40 years	14	17.7
41–50 years	31	39.2
50 years and more	19	24.1
<b>Place of residence</b>		
Village	19	24.1
City up to 20,000 inhabitants	5	6.3
City from 20,000 to 100,000 inhabitants	15	19.0
City over 100,000 inhabitants	40	50.6
<b>Education</b>		
Secondary	23	29.1
Bachelor’s degree	30	38.0
Master’s degree	26	32.9
<b>Marital status</b>		
Single	18	22.8
Married	52	65.8
Divorced	7	8.9
Widow/widower	2	2.5
<b>Number of children</b>		
I don’t have	25	31.6
One	14	17.7
Two	30	38.0
Three and more	10	12.7

**Table 2.** Professional characteristics of the respondents

Variable	N		%	
	1	2	3	
<b>Work experience in the profession</b>				
Up to 10 years		23		29.1
11–20 years		13		16.5
21–25 years		14		17.7
26–30 years		15		19.0
30 years and more		14		17.7
<b>Work experience in the department</b>				
Up to 10 years		30		38.0
10–19 years		34		43.0
20 years and more		15		19.0
<b>Specialization</b>				
Behavioural		18		50.0
Neonatal		2		5.6
Surgical		3		8.3
Cardiological		1		2.8
Internal medicine		2		5.6
Geriatric		1		2.8
Antitheological and intensive care		5		13.9

**Table 2.** Continued

	1	2	3
Paediatric		1	2.8
Oncological		1	2.8
Operational		1	2.8
Long-term care		1	2.8
Type of employment			
Employment contract		66	83.5
Contract		13	16.5
Contract of mandate		0	0.0
Other		0	0.0
Number of workplaces			
One		61	77.2
Two		14	17.7
Three and more		4	5.1
Working system			
One-shift 8-h		3	3.8
Shift 8-h		2	2.5
Shift 12-h		74	93.7
Post (1/2, 3/4, other)		0	0.0

The research was carried out by the method of diagnostic survey using the questionnaire technique. The following research tools were used:

1. The Health Behaviour Inventory (HBI) by Z. Juczyński [11], for the assessment of health behaviours by the respondents. The questionnaire consisted of 24 items characterizing various types of health-related behaviour. Depending on the severity, each of the statements is scored from 1 (almost never) to 5 (almost always). Depending on the frequency of a given action indicated by the respondent, the general intensity of the phenomenon and the degree of intensity are determined in four individual categories of health-related behaviours:
  - CEA (correct eating habits) — qualitative and quantitative selection of the food consumed — questionnaire item number,
  - PB (preventive behaviour) — acquiring knowledge about health and disease and following health orders — questionnaire item number,
  - HP (health practices) — activities ensuring relaxation and rest, physical activity — questionnaire item number,
  - PMA (positive mental attitude) — avoiding stress, depression and strong emotions — questionnaire item number.

The numerical values are summed up to determine the overall health behaviour rate. The respondents can get from 24–120 points, and the greater the number of points, the higher the level of the declared behaviour. The obtained results are converted to a standardized sten scale.

2. The Positive Orientation Scale (P Scale) by M. Łaguna et al. [12] for the assessment of the level of positive orientation, which allows to determine three aspects of a positive attitude to life: optimism, self-esteem and life satisfaction. The scale consists of 8 diagnostic items. Answers range from 1 (strongly disagree) to 5 (strongly agree). It is possible to get from 8 to 40 points, the number of points determines the level of positive orientation. The authors of the tool, on the basis of the conducted research, developed sten norms from 1–10.
3. Author’s interview questionnaire containing 11 questions to collect socio-demographic data and 7 questions regarding the assessment of attitudes towards the future.

The condition for the research was to obtain a positive opinion from the Bioethics Committee at Collegium Medicum in Bydgoszcz regarding the concept of the presented work (KB 325/2018).

All calculations and figures were made with the Statistica 10.0 program and the Microsoft Excel spreadsheet, using the standard functions of this program. The level of statistical significance was set at  $p < 0.05$ .

## Results

The respondents as a group present an average level of health behaviours, on the verge of a low level. The majority obtained the average score — 34 people (43.0%), the minority the high score — 14 people (17.7%). This is evidenced by both the score — 85.15 points (SD=11.688) (63.7%) and the mean sten score — 4.94 (SD=1.647) (Table 3).

**Table 3.** Assessment results on the HBI scale

HBI Scale — results	N	%
Low	31	39.2
Average	34	43.0
High	14	17.7
Total	79	100.0

Of all the categories of health behaviours, positive mental attitude and preventive behaviours were rated the highest, while health practices were rated the lowest (Table 4).

**Table 4.** Mean point values of health behaviours according to the HBI scale (N=79)

Variable	$\bar{x}$	SD	Trust -95%	Trust +95%	Min	Max	Lower quartile	Me	Upper quartile
Health behaviour according to HBI	80.15	11.688	77.53	82.77	52.00	112.00	73.00	80.00	88.00
Correct eating habits (PNŻ)	3.37	0.666	3.22	3.52	1.67	4.83	3.00	3.33	3.83
Preventive behaviour (ZP)	3.42	0.613	3.29	3.56	2.00	4.83	3.00	3.33	3.83
Positive mental attitude (PNP)	3.48	0.669	3.33	3.63	1.83	5.00	3.00	3.50	4.00
Health practices (PZ)	3.09	0.658	2.94	3.24	1.50	4.33	2.83	3.17	3.67

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

From all areas of the P scale, the respondents rated the question the highest — in general I have confidence in myself (5) — average 4.14 points when I need it, there are usually people I can count on (2) — average 4.03 points. The lowest positions: I have a lot of faith in the future (1) — average 3.58 points and sometimes

the future seems not clear to me (4) — average 3.35 points. The most numerous group obtained the average result — 30 people (38.0%). The smallest number of respondents obtained a high result — 24 people (30.4%) (Table 5).

**Table 5.** Mean results of items obtained according to the P scale (N=79)

Scale P determinants	$\bar{x}$	SD	Trust -95.0%	Trust +95.0%	Me
1. I have great faith in the future	3.58	0.886	3.38	3.78	4.0
2. When I need it, there are usually people I can count on	4.03	0.832	3.84	4.21	4.0
3. I am satisfied with my life	3.77	0.816	3.59	3.95	4.0
4. Sometimes the future seems unclear to me	3.35	0.817	3.17	3.54	3.0
5. I generally have confidence in myself	4.14	0.780	3.96	4.31	4.0
6. I look to the future with hope and enthusiasm	3.62	0.910	3.42	3.82	4.0
7. I feel I have a lot to be proud of	3.73	0.812	3.55	3.92	4.0
8. I am generally satisfied with myself	3.73	0.843	3.55	3.92	4.0

$\bar{x}$  — mean; SD — standard deviation; Me — median

The mean highest score for both health behaviours (HBI) and preventive behaviours and health practices was recorded in the age group up to 30 years. The highest number of high results of health behaviours was recorded in the group of rural residents — 4 people (21.1%), low results — 7 people (36.8%). The highest mean score for both health behaviours (HBI) and subscales, except for correct eating habits, was obtained by subjects with undergraduate education. The lowest rate of high results was recorded among those who had two children — 4 people (13.3%), low results — 13 people (43.3%). The highest rate of high health behaviour results was assessed in the group with 10 years of work experience — 5 people (21.7%), low results — 9 people (39.1%). The indicator of high health behaviour results was most often recorded in the group with work experience in the department of 20 years and more — 4 people (26.7%), low results — 4 people (26.7%). The smallest number of high results was recorded in the group with 10–19 years of work experience — 5 people (14.7%), with the highest indicator of low results — 15 people (44.1%).

Age, education, number of children, work experience in the profession and in the ward did not correlate statistically with the results of health-related behaviours and its subscales ( $p > 0.05$ ) (Table 6).

The highest indicator of high scores on the Positive Orientation Scale was recorded in the age range of 31–40 years — 6 people, in the bachelor’s education group — 10 people, in the group of city residents up to 20.000 — 2 people, in the group with three or more children — 4 people. The respondents who had worked in the profession over 30 years, 26–30 years and up to 10 years had the greatest positive orientation, and those who had worked in the profession for 21–25 years to the least extent. More high results were recorded in the group with specializations — 13 people, low results — 8 people.

The age of the respondents, education, number of children, work experience in the profession and in the ward, and place of residence did not correlate statistically with the results of the Positive Orientation Scale and the assessment of attitudes towards the future ( $p > 0.05$ ) (Table 7).

**Table 6.** Correlations between demographic variables and HBI results (N=79)

Variable	Position	R	t(N-2)	Level p
Age	HBI	0.026	0.226	0.822
	PN	-0.040	-0.349	0.728
	ZP	-0.109	-0.960	0.340
	PN	-0.033	-0.293	0.770
	PZ	-0.025	-0.218	0.828
Education	HBI	-0.125	-1.104	0.273
	PN	0.099	0.875	0.384
	ZP	-0.194	-1.736	0.087
	PN	-0.178	-1.588	0.116
	PZ	0.012	0.104	0.918
Number of children	HBI	0.026	0.226	0.822
	PN	-0.040	-0.349	0.728
	ZP	-0.109	-0.960	0.340
	PN	-0.033	-0.293	0.770
	PZ	-0.025	-0.218	0.828
Work experience in the profession	HBI	0.041	0.364	0.717
	PN	-0.006	-0.052	0.959
	ZP	-0.056	-0.490	0.625
	PN	0.018	0.154	0.878
	PZ	0.015	0.134	0.894
Work experience in the department	HBI	0.079	0.693	0.490
	PN	0.145	1.286	0.202
	ZP	0.123	1.091	0.279
	PN	-0.021	-0.183	0.855
	PZ	0.032	0.283	0.778

**Table 7.** Correlations of demographic variables with the results of the P scale and assessments of attitude to the future (N=79)

Variable	R	t(N-2)	Level p
P scale			
Age	0.071	0.622	0.535
Education	-0.020	-0.173	0.863
Number of children	0.114	1.011	0.315
Work experience in the profession	0.092	0.814	0.418
Work experience in the department	0.032	0.282	0.779
Attitude towards the future			
Age	-0.060	-0.523	0.602
Education	-0.057	-0.502	0.617
Number of children	0.097	0.851	0.397
Work experience in the profession	-0.074	-0.650	0.517
Work experience in the department	0.026	0.229	0.819

**Table 8.** Correlations of the results of the P scale and assessments of attitude to the future with the HBI scale (N=79)

Variable	R	t(N-2)	Level p
P scale			
HBI	0.370	3.490	0.001
PN	0.193	1.726	0.088
ZP	0.146	1.295	0.199
PNP	0.511	5.213	0.000
PZ	0.252	2.283	0.025
Attitude towards the future			
HBI	0.265	2.413	0.018
PN	0.321	2.979	0.004
ZP	0.168	1.495	0.139
PNP	0.324	3.007	0.004
PZ	0.146	1.299	0.198

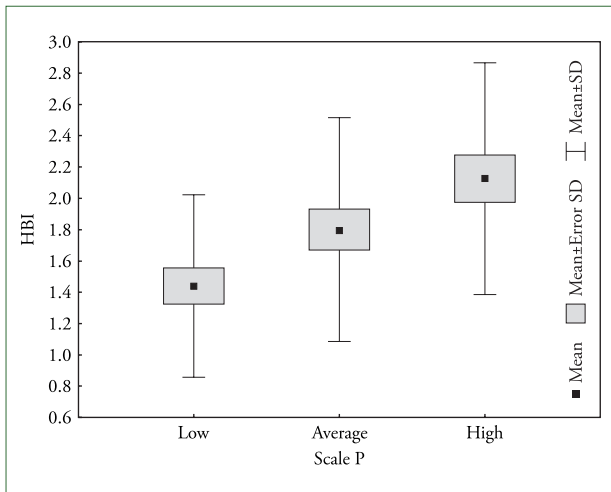
The positive orientation results remained in a statistically significant mean correlation with the results of health behaviours and positive mental attitude, and in a low correlation with the results of health practices ( $p < 0.05$ ) (Table 8).

The results of the attitude to the future remained in a statistically significant mean correlation with the results of correct eating habits and positive mental attitude, and in a low correlation with the results of health behaviours ( $p < 0.05$ ).

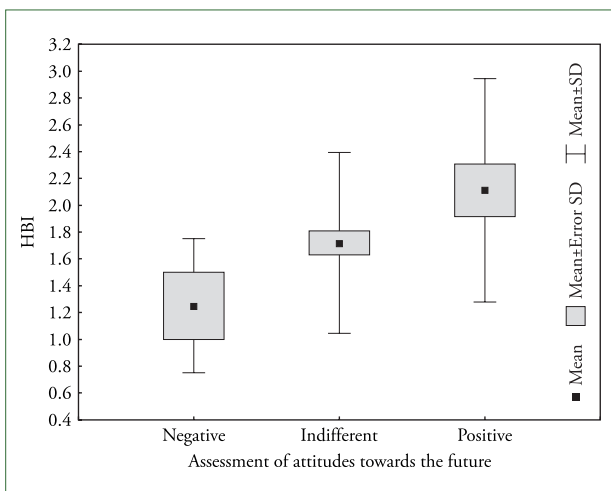
The highest rate of high health behaviour scores was recorded in the group with high scores on positive orientation — 8 people (33.3%), with the lowest rate of low scores — 5 people (20.8%). The lowest rate of high scores was noted among respondents with low scores for positive orientation — 1 person (4.0%) (Figure 1).

The highest mean score for both health behaviour (HBI) and other subscales was noted in the group with high scores for attitudes towards the future. The lowest results for health-related behaviours and other subscales were recorded in the group with low results for the attitude towards the future.

The highest rate of high health behaviour results was recorded in the group with high results attitudes towards the future — 7 people (38.9%), with the lowest rate of low results — 5 people (27.8%). The lowest indicator, or rather the lack of it, was noted among respondents with low attitudes towards the future. Low results — 3 people (75.0%) (Figure 2).



**Figure 1.** Distribution of HBI results in groups of P scale results



**Figure 2.** Distribution of HBI results in groups of results of attitudes towards the future

## Discussion

The nurses’ responsibility for educating the society imposes a formal obligation on them to present correct models of health attitudes.

The results obtained in the authors’ own research, where the respondents obtained an average general level of health behaviours, as well as individual HBI categories, are confirmed in the reports of analyses of health behaviours of professionally active nurses in Poland [11]. The occupational group with professional knowledge supported by experience in the field of broadly understood health promotion achieves only an average or even low level of preventive measures [13–15]. According to research by Janowski et al. [16], health care workers have sufficient knowledge about a healthy lifestyle, but they do not practice it personally, and they rarely spread pro-health principles among the society. Perhaps, according to Wills and Kelly et al. [17], personal health behaviour of healthcare professionals is considered a

private domain and should not be seen as part of the public image. This assessment may be changed by a broader view of the causes of low health behaviour of nurses. Ślusarska et al. [18] pay attention to the need for holistic determination of health determinants, where the health condition depends not only on biopsychosocial factors, but must also be related to the physical, social and sociocultural environment.

The surveyed nurses rated health practices the lowest among the HBI categories, in particular taking care of proportional rest and avoiding overwork; they confirmed this result by giving the fewest readiness points to give up the excess of duties and activities for a healthier lifestyle. Stychno and Kulczycka [19] refer to the problem of nurses’ workaholism both in disturbed social relations (work-family, friends) and health consequences (stress, occupational burnout, exhaustion). The time devoted to pursuing non-professional interests is also limited. The perception of a shortage of time devoted to the family may explain the high ratings of the respondents for having friends and a regulated family life in terms of a positive mental attitude.

Disruption of the biological rhythm of the body causes by the shift system of work, stress and lack of time often contribute to unhealthy eating habits [20]. Nurses who declare frequent consumption of vegetables, fruits and whole grain bread do not avoid excessive intake of salt, animal fats and sugar. Lack of control of calorific value and nutritional value of the consumed products and irregularity of meals concerned almost half of the nurses studied by Kołpa et al. [21], and the same studied indicated that 40% of them were overweight. Ross A., Yang L. et al. [22] point to the increased risk of movement deficit and overweight among nurses who do not take care of the patient directly. The same authors raised the issue of job satisfaction: nurses who like their job are more likely to take up physical activity and follow the principles of healthy eating, they also experience less stress [22]. Higher ratings for the category of positive mental attitude are undoubtedly related to the feeling of satisfaction with one’s job.

Mental predispositions allowing to perceive life, oneself and the future with an optimistic attitude, being the subject of the Positive Orientation Scale research, and attitude to the future, placed the group of respondents at an average level with a slight positive tendency. Mental well-being in the form of a good mood, experiencing positive emotions, joy of life and optimism makes it easier to deal with stressful situations, it also contributes to greater satisfaction in various areas of life, easier interpersonal relations with others, more efficient adaptive mechanism [23]. Low level of these features in a situation of frequent experience of professional stress by employees is the cause of a greater tendency to job rotation, lower level of job satisfaction and commitment to work,

reluctance to make decisions and lower concentration of attention [23].

A higher sense of satisfaction with work and life is conducive to greater efficiency at work, reduces the risk of burnout, improves the comfort of patient care, and improves the relationship between the subordinate and the superior [24]. On the other hand, Andruszkiewicz et al. [25], in a study conducted on over 300 nurses employed in various departments, drew attention to the dependence of the level of satisfaction with the work performed on the financial situation and remuneration. The lower assessment of material status resulted not only in lower satisfaction, but also in an increase in the perception of somatic and anxiety ailments, such as: sleep disorders, depression, anxiety, problems in social functioning.

Optimism and self-esteem recognized as personal resources were the subject of studies by nurses, which found that having a high level of personal resources strengthens adaptability, promotes an optimistic and constructive attitude in taking up challenges, increases mental stability and affects life satisfaction, a sense of success at work, and also facilitates distancing oneself from professional problems [9,26].

The problematic and surprisingly high assessment for undertaking activities that are risky for life and health due to the lack of similar studies is difficult to reference and verify.

The statistically confirmed higher level of health behaviours among the respondents with a greater potential for optimism, high self-esteem, positive attitude to life and the future is confirmed in the more and more frequently undertaken investigations of health psychology, a field dealing with the relationship between the psychological potentials of an individual's health and lifestyle and health protection [27].

One type of positive trait, called dispositional optimism, is defined as a general expectation that good rather than bad things will happen in the future [28]. Randomized controlled trials have shown that optimism can be learned [29], which leads to potential new interventions to improve public health. A higher level of dispositional optimism as assessed by validated quantitative scales is associated with better physical health, especially a lower risk of cardiovascular disease [28], lower mortality [30] and healthy aging [31].

A large-scale study of optimism conducted in Norway among a randomly selected sample of 1790 people confirmed that optimists are more likely to take pro-health measures, report somatic complaints less frequently, are characterized by a higher level of positive perception of the quality of life and better subjective well-being [32]. The aforementioned research by Mościcka-Teske and Potocka indicated greater absenteeism due to more frequent reporting of somatic

diseases by employees subjected to high stress at work [23].

Despite the lack of correlation between health behaviours, the Positive Orientation Scale and the assessment of attitudes towards the future and sociodemographic determinants, the highest level of behaviour in the age group up to 30 years of age and the lowest in the 50+ age group and the lowest HBI results in the group with a master's degree is not confirmed by other research studies, where both higher education and a greater number of lived years lead to an increase in the level of behaviour [20].

## Conclusions

1. The respondents presented the average global level of health behaviours. The categories of positive mental attitude and preventive behaviours were rated the highest, while the categories of health practices were rated the lowest.
2. The studied group presents an average level of positive orientation, which determines the group at an average level of optimism.
3. No statistically significant relationships were observed between socio-demographic factors and the level of health-related behaviours, positive orientation and the respondents' attitude towards the future.
4. The respondents with a high rating of positive orientation showed a higher level of both global health behaviours and their individual categories.

## Implications for Nursing Practice

Having a higher level of optimism and self-esteem as well as a positive attitude to life influences more willingness to take pro-health behaviours, conducive to maintaining somatic and mental health. An optimistic perception of oneself and the environment may help in coping with work stress more effectively, and thus counteract the risk of burnout, strengthen adaptive abilities, contributing to more effective problem solving and the feeling of higher job satisfaction. Presenting the right attitudes towards health may also have an impact on conducting of effective health education.


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