

# NURSING IN THE OPINION OF HIGH SCHOOL STUDENT

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A. Study design/planning • B. Data collection/entry • C. Data analysis/statistics • D. Data interpretation • E. Preparation of manuscript • F. Literature analysis/search • G. Funds collection

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SUBMITTED: 27.01.2022

ACCEPTED: 02.02.2022

DOI: <https://doi.org/10.5114/ppiel.2021.115833>

## ABSTRACT

**Introduction:** Image and prestige are factors that strongly determine the choice of future career. The period of secondary school education is the time of making decisions concerning further education and, consequently, profession. People who would like to make their future in nursing should make their decisions based on the real image of this job.

**Aim of the study:** The objective of the study was to get feedback on the opinions and beliefs of high school students about nursing.

**Material and methods:** The study included 172 high school students. The study used the diagnostic survey method with the author's survey questionnaire.

**Results:** About 75% of the respondents recognized an important role of the nurse in a therapeutic team, but only 19.77% perceived this profession as independent. The biggest group of students assessed nurses' work as "good" (43.60%), the smallest group as "very bad" (1.74%). Half of the respondents formed their opinion about nursing based on the Internet, and 18.60% based it on their own experience. The largest percentage of high school students considered factors that might encourage them to choose nursing as a profession: job satisfaction (61.63%), guaranteed employment (50.00%), and high salary (46.51%).

**Conclusions:** Adolescents recognize an important role of nurses in the therapeutic team; however, they lack knowledge about their broad professional competence. It is important to improve the image of nursing in society.

**Key words:** nursing, image, high school students, professional prestige.

## INTRODUCTION

The image of nursing, i.e. the way in which this profession is perceived by the general public, is significantly correlated with its prestige and position in the hierarchy of professions. The most important factors that affect the assessment of this profession include the following: nurses' good manners, their professional knowledge and skills, their attitude and personal value system, social relations, and, finally, remuneration. The image of a nurse who is only a doctor's assistant taking care of patients has been well-established in the public opinion for many years [1]. It is the media that are responsible for shaping such an image because the information they present is not always reliable and often one-sided. Such distorted coverage related to nursing may, in consequence, lead to the formation of negative opinions about the profession

of nursing in society [2]. On the other hand, personal experience with nursing staff may verify stereotypes and have a positive impact on forming opinions about this profession. However, Polish nurses themselves are not convinced of their own worth even though they rank higher than doctors among professions of public trust. They are generally perceived by society as polite, helpful, and kind-hearted people [3, 4].

Nursing may have many different meanings. According to Virginia Henderson, "the unique function of the nurse is to assist the individual, sick or well, in the performance of activities contributing to health or its recovery" [5, p. 23]. From this perspective, nursing means not only satisfying basic patients' needs but also keeping them company and providing support in difficult life situations such as illness or hospitalization [6].

Young people who would like to choose a nursing profession should make their decisions based on the actual image of this job. Unfortunately, the image created by the media discourages potential candidates from taking up this subject at university. Young people seem to be unaware of the fact that nursing means not only work in an outpatient clinic or hospital but also continuous improvement of one's own qualifications, personal growth, and progress in nursing as a science [7].

## AIM OF THE STUDY

The objective of the study was to get feedback on the opinions and beliefs of high school students about nursing.

## MATERIAL AND METHODS

The study was conducted among a group of 172 second- and third-year high school students from the Małopolska region. Detailed sociodemographic characteristics of the examined group are presented in Table 1.

The study was carried out between 17 February and 5 March 2020 after obtaining appropriate consent of the head teachers responsible for the aforementioned educational institutions. The respondents were informed about the aim of the study, the method of filling in the questionnaires, and their complete confidentiality, after which they gave their informed consent for participation in the study. The study was carried out as part of a proprietary project "Let's talk about nursing", which consisted of conducting a diagnostic survey and giving lectures about nursing with a view to improving the image of this profession. The survey was carried out before the lecture. Only 3 meetings were held as part of the project in 3 high schools in the Małopolska region because, due to the SARS-CoV-2 pandemic, the other meetings were cancelled.

The study was conducted as a diagnostic survey with the application of the authors' own question-

naire. The questionnaire consisted of 2 parts. The first was related to basic sociodemographic data (age, sex, place of residence), whereas the second included questions about young people's opinions and beliefs about nursing, such as necessary education, professional duties, or the image and prestige of the nursing profession.

## RESULTS

The respondents were asked questions about their perception of the nursing profession and what, in their opinion, the duties of the nursing staff include. The largest group of respondents believed that nurses play an important role in a therapeutic team (70.93%,  $n = 122$ ), but they are subordinate to doctors (66.86%,  $n = 115$ ). Only 19.77% ( $n = 34$ ) of students recognized the independence of the nursing profession (Table 2).

According to the majority of respondents, nurses' professional duties include the following: measuring life parameters (96.51%,  $n = 166$ ), administering medicines (95.35%,  $n = 164$ ), and nursing patients (90.69%,  $n = 156$ ). The duties that were mentioned the least frequently were writing prescriptions (4.65%,  $n = 8$ ) and independent administering non-pharmacological treatment (3.48%,  $n = 6$ ) (Table 3).

Most students had some previous contact with the nursing staff, usually in hospital (68.03%,  $n = 117$ ) or a clinic (47.09%,  $n = 81$ ). Therefore, they were asked to assess nurses' work based on their own experience. The largest group of respondents assessed nurses' work as "good", and the smallest group as "very bad" (Table 4).

Some examples of the justification for the answers given by respondents are listed below: "Well-done job, diligence, paying attention to safety",

**Table 1.** Sociodemographic characteristics of the examined group

Variable	M	SD
Age	17.08	1.09
	<i>n</i>	%
Gender		
Women	143	83.14
Men	29	16.86
Place of residence		
Village	92	53.48
Town (population < 20,000)	34	19.76
City (population > 20,000)	46	26.74

**Table 2.** Respondents' perception of the nursing profession

Perception of the nursing profession	Percentage of respondents	Number of respondents
A nurse is a person who doesn't do anything	22.67	39
It is a job with low social status	29.07	50
It is a highly respected job	15.70	27
A nurse only acts under the doctor's instructions	66.86	115
A nurse is on a par with a doctor	16.86	29
A nurse plays an important role in a therapeutic team	70.93	122
A nurse is an inferior staff member	28.48	49
A nurse performs an independent job	19.77	34

**Table 3.** Nurses' professional duties

Nurses' professional duties	Percentage of respondents	Number of respondents
Informing patients about their health condition	32.56	56
Independent administering non-pharmacological treatment	3.48	6
Health education	54.65	94
Helping patients become independent	45.35	78
Nursing patients	90.69	156
Completing medical records for a doctor	19.18	33
Participation in diagnostic tests	61.63	106
Completing nursing medical records	79.65	137
Administering medicines	95.35	164
Writing prescriptions	4.65	8
Measuring life parameters	96.51	166

“The nurse was kind and provided professional care to me and other patients”,  
 “They were nice, but they showed little interest in what I was saying or what I wanted to know”,  
 “The nurses I met were kind and helpful”,  
 “Lack of gentleness when performing tests”,  
 “I was afraid to lie in the room alone at night, so I went to the nurses' room and they gave me some tasks to do, e.g. to write down all the numbers I knew, so that I kept my mind busy”,  
 “When I had my collarbone broken a nurse took off my blouse applying force even though I asked her to cut it because my shoulder hurt a lot”,  
 “They do their job well as it is their calling”,  
 “She took blood samples without wearing gloves”,  
 “She helped patients in all situations and gave them some advice”,  
 “Sometimes their qualifications and skills are not sufficient”,  
 “Their qualifications were good but their attitude to patients could be different”.

The examined high school students were also asked what affected their opinion about the nursing profession and what factors could make them choose nursing as a subject to study at university. Half of the respondents formed their opinion about the nursing profession based on the Internet (50.00%,  $n = 86$ ), whereas 18.60% of them ( $n = 32$ ) relied on their own experience resulting from frequent contact with nursing staff (Table 5). The main factors that could make them choose nursing as a profession included job satisfaction (61.63%,  $n = 106$ ), guaranteed employment (50.00%,  $n = 86$ ), and high salary (46.51%,  $n = 80$ ) (Table 6).

**Table 4.** Assessment of nurses' work based on one's own experience

Assessment	Percentage of respondents	Number of respondents
Very good	19.18	33
Good	43.60	75
Hard to say	20.93	36
Bad	6.40	11
Very bad	1.74	3
No answer	5.23	9
Other	2.91	5

**Table 5.** What affects your opinion about the nursing profession?

Influence on opinion about the nursing profession	Percentage of respondents	Number of respondents
Frequent contact with nursing staff	18.60	32
I have a nurse in my family	23.84	41
I have a nurse among my friends	15.70	27
Television	32.56	56
Media	10.46	18
Friends	33.14	57
Internet	50.00	86
Other	4.07	7

**Table 6.** What could make you choose nursing as a profession?

Motivators for choosing the nursing profession	Percentage of respondents	Number of respondents
High salary	46.51	80
Job prestige	13.95	24
An opportunity for professional development	34.30	59
Guaranteed employment	50.00	86
Job satisfaction	61.63	106
An opportunity to work abroad	27.33	47
Other	3.48	6

## DISCUSSION

Despite an increasing number of employed nurses, a significant shortage can still be observed in this profession [8]. According to OECD data, in 2018 in Poland there were 5.1 nurses per 1000 citizens, whereas in Finland this ratio reached 14.3 [9], and the minimum employment standards for nurses and midwives in healthcare institutions recommended by the Polish Ministry of Health cannot be achieved. High school students are potential students of nursing and consequently future professionals in the healthcare sector. Their ideas related to a particular profession are vital while choosing a career path. The aim of

the study was to collect and analyse opinions and beliefs related to nursing in a group of 172 students from 3 high schools in the Małopolska region. Most of the respondents had some previous contact with the nursing staff (93%), and were able to evaluate nurses' work and to create their own image of nursing.

Although the authors' study showed that young people recognize the importance of nurses' role in a therapeutic team, in their opinion, nurses were subordinate to doctors, and only 19.7% of high school students thought that a nurse did an independent job and could indicate nursing duties that accounted for the autonomy of the job and nurses' high professional qualifications. A comparably small group of respondents (16.8%) believed that a nurse is on a par with a doctor. Koo and Lin, having analysed the Google and Shutterstock images that appeared as a response to "nurse" keyword, showed that nurses are often excluded by doctors from making decisions about providing care to patients [1]. On the other hand, an analysis of Centre for Public Opinion Research (CBOS) surveys assessing the prestige of particular professions in society, showed that there is great respect for the nursing profession. Moreover, in a survey conducted in 2019, nurses ranked higher than doctors as far as public trust was concerned [4]. On the other hand, in the study by Mędrzycka-Dąbrowska *et al.* teenagers perceived modern nurses as people who are reliable and accurate in performing their duties, systematically broaden their knowledge, and earn great social trust; however, more than half of the respondents considered the nursing profession to be a job of average prestige (51% of women and 48% of men) [11]. It was confirmed in the study by Siwek and Nowak-Starz, which proved that in young people's opinion nursing is a low-prestige job [12]. Similarly, in the authors' own study nearly 30% of respondents perceived nursing as a profession with a low social status, whereas 28.5% of them thought that nurses belong to inferior staff.

The perception of the nursing profession is shaped by numerous factors and is based on various sources. The media coverage (radio, television, social media) is a vital element of image creation, especially for young people. In the study conducted by the authors every second respondent considered the Internet to be a significant source of image building, whereas only 18.6% of them based their opinion about the job on their own experience and frequent contact with the nursing staff. Even the nursing staff themselves realize how the enormous role the media play in creating the image of the profession frequently points to a negative character of the presented coverage, which shows nursing in a bad light. Most of the respondents examined by Sykut-Dobrowolska were of the opinion that television shows the nursing job as inferior to that of a doctor (76.8%). In their opinion,

a similar image of nursing is created by the Internet, which emphasizes nurses' mistakes, difficulties, and problems as well as the problem of understaffing [13]. Nursing students also found the media coverage to be quite unfavourable [14].

In the authors' own study, the knowledge about the scope of nurses' duties was also assessed. Most respondents thought that these duties include measuring life parameters (96.5%), administering medicines (95.4%), and nursing patients (90.7%). Similar conclusions were reached by Koo and Lin based on their analysis of Internet photos presenting nurses most frequently in situations when they were only looking after patients or comforting them and were never involved in activities related to clinical tasks, scientific research, or education [1].

Over a half of the respondents (54.6%) participating in our study believed that health education also belonged to nurses' duties. The evaluation of nurses' work in this area was also undertaken by Jurkiewicz and Kobos, who conducted their research among patients of 10 hospital departments of either surgical or conservative type. Taking into account all the evaluated areas of nurses' work (satisfying basic patients' needs, practical activities, emotional support, providing patients with information and education, communication between a nurse and a patient, coordinating nursing care, showing attention and kindness), it was informing patients about proper performance of nursing activities that respondents evaluated the highest, whereas the quality of education about health care after being discharged from hospital was evaluated lower [15]. Similarly, in the study conducted by Wyrzykowska most respondents agreed that nurses helped patients to become independent [16]. Also, the results of Wasilewski's study assessing the quality of nursing care provided to patients in neurology and neurosurgery departments indicate that in the respondents' opinion the assistance provided to patients and aimed at their regaining self-reliance was highly ranked [17]. In the authors' own study 45.3% of respondents pointed out that helping patients regain independence is among nurses' duties.

Motivation is an important internal factor determining the choice of a future career path. According to the data collected in 2013 by the Polish Central Statistical Office (GUS, Główny Urząd Statystyczny), the most frequent motivation for choosing medical studies for people aged under 30 was the compliance of this subject with young people's interests (54%) [18]. The aforementioned data are consistent with the results obtained in the study by Aleksiejczuk, Koralewicz *et al.*, in which more than half of the nursing students claimed that their main motivation for starting this type of studies was their interest in the job or in medicine (70% and 60.7%, respectively) [2, 19]. In a comparable study conducted by Smoleń and Kędra

the percentage of respondents interested in nursing or in medicine was 41% and 53%, respectively [20].

Other, equally frequent, external reasons for choosing this type of studies are labour market demand (for 50% of respondents in the study by Koralewicz *et al.*), job security (for 48.9% of respondents in the study by Sobczak and Skuzińska), and an opportunity to find a job in one's country (for 54.8% of respondents of Aleksiejczuk's study and 92.8% of respondents surveyed by Smoleń and Kędra) [2, 19-21]. Also, the prospects of finding a job abroad can easily be an incentive to choose this subject at university. In the authors' own study almost 1/3 (27.3%) of teenagers thought it was a good motivation to start nursing studies. In turn, in the study conducted by Smoleń and Kędra, 75.1% of nursing students were guided by a similar motivation [20].

The results of various studies indicate that the nursing profession is associated with performing a difficult job, which requires hard work and readiness to help others. In the study carried out by Mędrzycka-Dąbrowska *et al.* 27.6% of women and 23.3% of men perceived a nursing job as helping other people [11]. Similarly, in the study by Dziubak and Motyka, the majority of respondents (56.3%) identified the nursing job with a caring attitude towards a patient and willingness to provide them with help and support [22]. Undoubtedly, when choosing the subject to study at university many young adepts are motivated by their willingness to help others, which is confirmed by the study of Smoleń and Kędra, Sobczak and Skuzińska, as well as Aleksiejczuk in which most respondents declared that their willingness to help others was the motivation to choose nursing studies [19-21], whereas in the study by Koralewicz *et al.* such a motivation was declared by 50% of respondents [2]. Willingness to help others was also the prevailing motivation for choosing nursing studies among high school students. It was declared by 57% of young people surveyed by Franek *et al.* and 20.2% of respondents in Pierzak's study [7, 23].

The authors' own study was focused on external motivation (perception of the profession) when choosing the future area of education. Most respondents indicated that the main factor encouraging them to become a nurse was job satisfaction (61.6%), whereas half of them said it was guaranteed employment. These results are confirmed by the statistics of the Polish Central Statistical Office (GUS, Główny Urząd Statystyczny) related to the motivation for choosing nursing studies [18]. However, in the study by Franek *et al.* job security was only the fifth on the list of the most important factors encouraging young people to study nursing [7], and in Pierzak's study only 5.0% of respondents claimed it was an incentive to follow the nursing educational career [23].

High salary is not always a decisive factor when choosing a professional career. It was the main mo-

tivation for a relatively small percentage of respondents surveyed by Franek *et al.*, Pierzak, Aleksiejczuk, as well as by Sobczak and Skuzińska [7, 19, 21, 23]. On the other hand, in the authors' own study as many as 46.5% of high school students believed it could encourage them to choose nursing as a profession. In the study by Smoleń and Kędra a similar motivation was observed in every fourth student (25.4%) [20].

The opportunity for professional development turned out to be a relatively weak motivation to start nursing studies, as only 34.3% of respondents chose this option in the authors' own study. On the other hand, 12% of the respondents in the study conducted by Franek *et al.* and only 1.7% of the respondents surveyed by Pierzak indicated the necessity to develop professionally as a motivator to start nursing studies. The differences might result from choosing different study groups in the authors' own study and in the study carried out by Franek *et al.* [7, 23].

The least significant factor that could encourage young people to choose nursing as a profession was the prestige of this job. In the authors' own study 13.9% of respondents chose this option, whereas in the study by Pierzak it was 11.8%, in the study by Mędrzycka-Dąbrowska *et al.* it was 11% of men and 10% of women, and in the study by Franek *et al.* it was only 2% of the surveyed group of young people [7, 11, 23].

The authors' own study involved high school students living in urban-rural communities in towns and villages the population of which was below 50,000. Approximately half of the respondents were residents of rural areas (53.5%) and their contact with nursing staff was usually limited to primary health care clinics and the medicine of their educational environment, which might account for limiting their perception of nursing duties, and consequently affect their image of the nursing profession. In the future such research should be continued in schools located in big cities also in other parts of the country. It would also be worthwhile to include in the study students learning in other types of secondary schools, which would allow for a more accurate and overall picture. Additionally, due to the fact that the image of the nursing profession among young people is not explicitly positive, it is essential to shape public opinion and strengthen the image of the nursing profession. Proper job promotion may encourage high school graduates to choose nursing studies [24].

## CONCLUSIONS

Young people realize that nurses play an important role in a therapeutic team; however, they lack sufficient knowledge about competences and a broad and specialist scope of the professional duties of the nursing staff.

Young people's opinion about nursing is usually shaped by information found on the Internet; therefore, it is important to make an effort so that the content presented there shows the nursing profession as an autonomous one and nurses as professionals with great competences.

An important task for the future is to increase young people's awareness of the competences of particular members of a therapeutic team.

### Disclosure

The authors declare no conflict of interest.

### References

1. Koo M, Lin SC. The image of nursing: A glimpse of the Internet. *Jpn J Nurs Sci* 2016; 13: 496-501.
2. Koralewicz D, Kuriata-Kościełniak EI, Mróz S. Opinia studentów pielęgniarstwa na temat wizerunku zawodowego pielęgniarzek w Polsce. *Piel Zdr Publ* 2017; 7: 285-292.
3. Machul M, Chrzan-Rodak A, Bieniak M et al. Wizerunek pielęgniarzek i pielęgniarstwa w Polsce w mediach oraz w opinii różnych grup społecznych. *Systematyczny przegląd piśmiennictwa naukowego z lat 2010-2017. Pielęg XXI* w 2018; 17: 44-49.
4. Fundacja Centrum Badania Opinii Społecznej (2019). Komunikat z badań CBO. Które zawody uważamy? 2019; 157: 1-9 [https://www.cbos.pl/SPISKOM.POL/2019/K\\_157\\_19.PDF](https://www.cbos.pl/SPISKOM.POL/2019/K_157_19.PDF) (dostęp: 08.04.2021).
5. Collins S, Parker E. *Propedeutyka pielęgniarstwa*. Państwowy Zakład Wydawnictw Lekarskich, Warszawa 1989.
6. Leszczyńska M. Zanim pielęgniarstwo stało się zawodem. *Mag Pielęg Położ* 2018; 6: 6-11.
7. Franek G, Kulik H, Ferdyn M. Zainteresowanie zawodem pielęgniarstwa wśród młodzieży szkół licealnych. *Probl Pielęg* 2012; 20: 423-430.
8. Naczelna Izba Pielęgniarek i Położnych. Liczba pielęgniarzek i położnych zarejestrowanych i zatrudnionych. <https://nipip.pl/liczba-pielęgniarek-polożnych-zarejestrowanych-zatrudnionych/> (dostęp: 08.04.2021).
9. Bartosiewicz A, Jacek A. Strategie rozwoju i wyzwania pielęgniarstwa w Polsce i na świecie. *Zeszyty Naukowe Uniwersytetu Rzeszowskiego* 2020; 112: 69-84.
10. Ministerstwo Zdrowia. Analiza w zakresie stosowania minimalnych norm zatrudnienia pielęgniarzek i położnych przez podmioty lecznicze w 2016 r. Warszawa 2017. [analiza\\_w\\_zakresie\\_stosowania\\_minimalnych\\_norm\\_zatrudnienia\\_pip\\_w\\_2020r.pdf](https://mz.gov.pl/analiza_w_zakresie_stosowania_minimalnych_norm_zatrudnienia_pip_w_2020r.pdf) (mz.gov.pl) (dostęp: 10.04.2021).
11. Mędrzycka-Dąbrowska W, Bąkowska G, Kwiecień-Jaguś K, et al. Postrzeganie zawodu pielęgniarstwa przez młodzież szkół ponadgimnazjalnych jako wybór przyszłego zawodu — doniesienia wstępne. *Probl Pielęg* 2012; 20: 192-200.
12. Siwek M, Nowak-Starz G. Współczesny wizerunek pielęgniarstwa w opinii społeczeństwa. *Pielęg Pol* 2017; 65: 487-500.
13. Sykut A, Dobrowolska B. Media elektroniczne i ich wpływ na kreowanie wizerunku zawodowego pielęgniarzek według opinii pracujących przedstawicieli tej profesji. *Pielęg Pol* 2016; 61: 347-352.
14. Jakubowska K, Sykut A. Działania poprawiające wizerunek pielęgniarstwa w mediach elektronicznych. Opinia młodzieży studiującej na kierunkach medycznych. *Pielęg XXI* w 2017; 60: 42-50.
15. Jurkiewicz A, Kobos E. Opinia pacjentów na temat pracy pielęgniarzek. *Pielęg Pol* 2017; 65: 473-480.
16. Wyrzykowska M. Ocena opieki pielęgniarstwa w opinii pacjentów. *Pielęg Chir Angiol* 2007; 1: 3-10.
17. Wasilewski TP. Ocena jakości usług świadczonych przez pielęgniarstwo oddziałów neurologii i neurochirurgii. *Zdrowie i Dobrostan* 2015; 2: 393-401.
18. GUS. Wybory ścieżki kształcenia a sytuacja zawodowa Polaków. Warszawa 2013; 83-84. Główny Urząd Statystyczny / Obszary tematyczne / Edukacja / Edukacja / Wybory ścieżki kształcenia a sytuacja zawodowa Polaków (dostęp: 08.04.2021).
19. Aleksiejczuk A. Motywy wyboru kierunku studiów medycznych w województwie podlaskim. *Med Og Nauk Zdr* 2015; 21: 428-434.
20. Smoleń M, Kędra EM. Motywy wyboru kształcenia na kierunku pielęgniarstwo w opinii studentów Państwowej Medycznej Wyższej Szkoły Zawodowej w Opolu. *Pielęg Pol* 2018; 68: 141-151.
21. Sobczak M, Skuzińska A. The youth are coming. A new image of female and male nurses. *Piel XXI* w 2016; 15: 11-16.
22. Dziubak M, Motyka M. Motywy wyboru zawodu pielęgniarstwa i ich uwarunkowania — badania studentów kierunku pielęgniarstwa Collegium Medicum Uniwersytetu Jagiellońskiego. *Probl Pielęg* 2013; 21: 281-289.
23. Pierzak M. Pielęgniarstwo jako zawód uprawiany w przyszłości — opinia młodzieży klas maturalnych. *J Educ Health Sport* 2017; 7: 125-140.
24. Kózka M. Co czeka polskie pielęgniarstwo? Analiza Przypadków w Pielęgniarstwie i Późnictwie 2016; 1: 37-40.