

RESEARCH

Open Access



Why do young people choose nursing as their future profession? – a qualitative study on polish nursing students' motivating factors to apply to nursing and work in the profession after graduation

Artur Chmielewski¹, Piotr Przymuszała^{2*} and Ryszard Marciniak²

Abstract

Background The existing staff shortages and growing worldwide demand call for action to increase the number of practicing nurses. Following the identified gap in the literature, this qualitative study aims to analyze what motivated nursing students to choose nursing as their field of study and whether they still plan to pursue it after graduation, including the factors influencing their intentions.

Methods Thirty semi-structured interviews were conducted with nursing students from Poznan University of Medical Sciences (Poland) on this matter, and the obtained data were subjected to thematic analysis performed by two researchers. Before starting the study, its protocol was also submitted to the Poznan University of Medical Sciences Bioethics Committee, which decided that since it is not a clinical trial, its opinion is not necessary under the Polish legal system (Decision number: KB-987/22).

Results Three themes were generated in this study. The first theme described what prompted respondents to apply for nursing studies. In this aspect, students mentioned factors like, e.g., their interests, subjects taken at high school, previous life experiences with the healthcare sector giving them a chance to observe nurses at work, having a nurse among family members or friends, or the positive presentation of healthcare professionals in the media or TV series. However, as the second theme demonstrated, some students reported a discouraging effect of negative reactions toward this choice from some family members, acquaintances, or even nurses, making them feel as if they had to defend this choice. The respondents attributed these reactions to some outdated stereotypical views on the nursing profession. Finally, the third theme summarized students' current intentions to enter the profession after graduating and the factors influencing them, including the quality of their studies and whether they feel prepared for the requirements of the profession, the role of support and interpersonal relations among staff members, observed

*Correspondence:
Piotr Przymuszała
pprzyusza@ump.edu.pl

Full list of author information is available at the end of the article



© The Author(s) 2025. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

conditions of medical personnel's work, physical and emotional burden and the responsibility of nurses' work, the financial stability and abundance of different job prospects for nurses, or the issue of the prestige of the profession.

Conclusions The study's findings offer insight into the motives of nursing students for choosing nursing and their intentions to start working in the profession after graduation, which may help respond to identified problems, enhance the intentions of becoming a nurse among young people, and thus contribute to increasing the number of nurses in the healthcare sector.

Keywords Nursing students, Nurses, Professional intentions, Nursing studies, Nursing staff shortages

Background

Medical staff shortages are becoming a serious and urgent problem in the healthcare sector. For instance, the number of doctors in Poland was reported to be the lowest in the European Union, with 238 physicians per 100,000 inhabitants in 2017 [1]. Although the number of practicing nursing professionals was bigger and amounted to 510 per 100,000 inhabitants, it was still lower than in most European countries. Additionally, their number was reduced compared to 2013 (around 520 per 100,000 inhabitants), and a one-third decrease in the number of nursing graduates was also observed [2]. The recent pandemic may have additionally exacerbated these already low indicators. According to the report of the Cracow University of Economics [3], 15% of doctors and 10% of nurses reported their intention to leave the Polish labor market after the pandemic, either emigrate or leave the profession altogether. However, similar problems with the shortage of medical staff seem to be a common problem in different parts of the globe. The results of one study showed that 15% of American nurses regretted their choice of becoming a nurse [4]. Meanwhile, worldwide demand for nurses is estimated to reach 36 million by 2030, creating a global shortage of 5.7 million nursing professionals [5].

Alarmingly, the research conducted by Pieniawska et al. [6] also warned about the risk of burnout among medical students even before entering the profession and looking for alternative career paths. In fact, studies show higher rates of mental health issues among medical students when compared with the general population, with more than half of them experiencing elevated stress levels and burnout [7, 8]. The multiplicity of stressors includes the competitive and burdening character of studies, issues like the tight study schedule with many activities and strict deadlines, work-life balance, fear of failure or making mistakes, or subjection to people's suffering and death [8–10]. Given the existing staff shortages among healthcare workers and unfavorable demographic prognosis, it can lead to the risk of not securing the population's health needs in the future. A recent review study conducted by a team of researchers from China analyzing intention to leave the profession among newly registered nurses based on studies from, among others, the

USA, Japan, Canada, Finland, China, Australia, Taiwan, and Turkey indicated several factors associated with it, including demographic ones, workplace-related (challenges, work environment, availability of support, or response to work), as well as the presence of role models, resilience, or source of motivation, among others [11]. Previous research in the form of both a systematic review and original research papers from, among others, Singapore and Morocco has also described several factors that are taken into consideration by young people when applying to nursing or other healthcare faculties, like the willingness to help other people and contribute to society, previous personal experiences with healthcare (e.g., looking after an ill relative, voluntary work, or the opportunity to observe healthcare professional's work as a patient or patient's family), family influence, role models and encouraging accounts of someone close working in healthcare, personal interests, ones' academic abilities, subjects taken at school, earnings, prestige, and job security [12–15]. Depending on their nature, they have also been grouped in a systematic review by Wu et al. [14] into intrinsic, extrinsic, socio-demographic, and interpersonal factors, with an observation that intrinsic factors (e.g., personal interests or willingness to help other people) prevailed as motivation for choosing a career in healthcare in general, but the way that nursing is perceived in terms of future earnings, status, and prestige may limit the willingness of potential applicants to choose it. Furthermore, it has also been noted that some students may consider nursing as a provisional alternative option for candidates who could not get into their first-choice field of study and intend to switch to other courses later, for instance [12]. Therefore, a need was observed for studies analyzing whether nursing students actually pursue their chosen profession after graduation [12].

The results of studies conducted so far suggest the existence of distinct time points that could be distinguished as crucial to increasing the number of nursing students and enhancing the chance of them becoming practicing nurses. The first would be the moment when young people decide on their future career paths and choose the fields of study to apply. Then, as nursing students progress through their studies and get a glimpse of their future profession, other factors may also be of importance and

influence their decisions to continue with their chosen profession or resign from either further study nursing or joining the nursing profession after graduation. Due to many potential factors that may be of importance at different time points and the above-mentioned gap in the literature, there seems to be a need for a complex evaluation and comparison of how these deciding factors may progress or change over time to increase our understanding of this matter and enhance young people's intentions of choosing nursing as their future profession. Consequently, this qualitative study aims to offer a comprehensive analysis of what prompts young people in Poland to choose nursing as their future career path and apply to nursing, what motivating factors then influence their further intentions regarding continuing their career in nursing, and how their hitherto personal, educational and professional experiences may have influenced them.

Methods

Study design and setting

As the first step of the research procedure, its protocol was submitted to the Poznan University of Medical Sciences (PUMS) Bioethics Committee, which decided that since the study is not a medical experiment, its approval is not necessary under the Polish legal system (Decision number: KB-987/22). Under Polish law, the approval of the Bioethics Committee is required only in the case of research projects involving patients or volunteers in situations in which the safety of the research participant may be in any way threatened or in which the research protocol violates or changes routine practices regarding patient care, e.g., diagnostics and treatment [16]. However, realizing their importance, much attention was paid to ensuring that the study met the highest ethical standards described in the BERA Guidelines [17]. Before starting each interview, the participants were informed of the purpose of the study, its anonymity, the voluntary character of their participation, and that they could withdraw from the study at any time. They were also informed that the interviews were being recorded to facilitate the data processing and analysis, but they would be encoded and anonymized in order not to allow for the identification of any participant. To ease their participation in the study and ensure that the duration of the interviews was not too burdensome for the participants, they were also conducted at a time convenient and chosen by the respondents. The respondents were informed before the start of the interviews that they could stop them at any time or choose not to answer a question if they felt uncomfortable or if the interview was taking too long.

The study was conducted from May to June 2023 in the form of semi-structured interviews with final-year nursing studies. The semi-structured format of the interviews was chosen due to the flexibility they offer, allowing to

investigate the topic and obtain a thorough understanding of respondents' experiences and accounts on issues under interest with the help of pre-formulated questions in the form of a thematic guide, while allowing the respondents with the possibility to explore particular topics to a greater extent or introduce new ones, which may not have been previously considered by the interviewer [18]. A thematic guide developed following a previous literature search on the topic [12–14, 19–23] was used during each interview, the outline of which was presented in Table 1.

The interviews were conducted by the first author, who is a nurse with a master's degree and specialization in anesthesiology and intensive care who works in a pediatric ward. Given his previous educational and professional experiences and the potential risk of bias associated with them on the topic of the study, the study team also included two other researchers with different backgrounds - the second author and the senior author, who are physicians with respectively a doctoral degree and the title of professor of medical sciences, and experience in conducting research using qualitative methodology. Although the first author had previously been involved in qualitative research as a co-author, this study was his first time conducting the interviews, so before starting the study, he was prepared for this role by the second author, which included, among others, information on how to conduct interviews and ask questions, the assumptions and principles of qualitative methods, as well as, a trial session where he practiced conducting the interview and asking questions. Additionally, after the first few interviews, their recordings were verified by the second author, and some additional feedback was provided on these aspects. The first author was also supported in the analysis of the data, which was performed with the second author (researcher triangulation), as described in greater detail below.

Sampling

Convenience sampling was used during the study. The inclusion criteria for the study were the status of a final-year nursing student in the academic year 2022/23 of PUMS and their consent to participate. The rationale for the decision to conduct the research during the last year of their studies was the fact that they could potentially provide more comprehensive perspectives on the topic of the study, taking into account both their accumulated experience of their hitherto educational path as well as the near-future context of their graduation, receiving the title of a licensed nurse, and deciding on their professional future. In total, interviews were conducted with 30 students, including 5 men and 25 women. The detailed demographic characteristics of the participants are presented in Table 2. The average duration time

Table 1 Interviews’ thematic guide outline

Topics covered during the interviews:
1. Factors prompting and motivating participants to choose and apply to nursing
2. Students’ opinions on the quality of healthcare in Poland, the conditions and comfort of the work of healthcare personnel in general and nurses in particular
3. Participants’ description of their typical day during the studies
4. Students’ observations on stress during the nursing studies and in the work of a nurse
5. Students’ assessment of their studies in terms of conveyed knowledge and practical skills, teachers, demands, or organization of curriculum, as well as general impression
6. Students’ relations with patients, personnel, teachers, and other students
7. Students’ sense of self-efficacy in performing their duties associated with studying, learning, or performing tasks during clinical classes
8. Nursing studies during the COVID-19 pandemic and student volunteering
9. Students’ sense of satisfaction and fulfillment from choosing nursing as well as whether they would choose it once more if they had to choose their field of study again
10. Participants’ intentions to enter the profession after graduation
11. Factors motivating or discouraging participants from entering the profession after graduation, including any advantages or disadvantages, positive and negative feelings associated with it, influences of other people, or any circumstances facilitating/impeding it
12. Additional issues that the respondent may want to add on the topic that was not covered by the questions

of the interviews was 1 h and 12 min (ranging between 32 min and 2 h and 28 min). The estimated sample size was first determined before the study due to the need to submit a proposal for the opinion of the Bioethics Committee with respect to such aspects described by Braun and Clarke as the aim and scope of the study, the research questions asked, and the potential diversity in the sample and depth of data regarding their individual motivations, intentions, and experiences with nursing [24]. Since Braun and Clarke bring up the incoherence or lack of particular usefulness of the concept of data saturation in their version of the thematic analysis that we used in this study, opting for the concept of information power instead [24], after discussions within the research team, the collected 30 interviews and data obtained from them were recognized as sufficient in terms of richness and complexity to address the research question.

Data collection

Potential participants were invited into the study with the help of student class representatives via e-mails and the Teams platform. They received a message informing them about the scientific purpose of the study, its anonymity, and the completely voluntary character of their participation. Respondents did not receive any remuneration for participating in the study. They were also informed that they could stop their participation in the study at any time without consequences or refuse to answer any of the questions during the interview. During the interviews, attention was also paid to encouraging participants to speak freely on a given topic, emphasizing the importance of all their opinions and experiences. In order to increase the willingness of potential respondents to participate in the study, the interviews were conducted on the MS Teams platform at a time convenient for the respondents.

Data analysis

In order to facilitate the process of data analysis, the interviews were recorded with students’ prior consent. Immediately after the interviews, the recordings were encoded, anonymized, transcribed, and then subjected to thematic analysis. It followed the methodology described by Braun and Clarke [25], namely initial familiarization with data, generation of initial codes, searching for themes, reviewing them, defining and naming them, and then producing the final report. The first and second authors performed this process to increase the insight into the data and the study perspective (researcher triangulation). At first, they worked independently, reading the transcripts of the interviews several times and familiarizing themselves with the data, making notes, searching for patterns within the data, generating codes, and then initial themes. The process of coding and theme

Table 2 The detailed demographic characteristics of the participants

Respondent's number	Age	Gender	Educational background
R1	23	Female	Nursing student
R2	23	Female	Nursing student
R3	23	Female	Nursing student
R4	23	Female	Nursing student
R5	23	Female	Nursing student
R6	27	Female	Nursing student
R7	23	Female	Nursing student
R8	26	Female	Nursing student
R9	23	Female	Nursing student
R10	23	Female	Nursing student
R11	23	Female	Nursing student
R12	23	Female	Nursing student
R13	23	Female	Nursing student
R14	23	Female	Nursing student
R15	23	Female	Nursing student
R16	23	Male	Nursing student
R17	23	Female	Nursing student
R18	23	Male	Nursing student
R19	23	Female	Nursing student
R20	23	Female	Nursing student
R21	23	Male	Nursing student
R22	23	Male	Nursing student
R23	26	Male	Nursing student
R24	23	Female	Nursing student
R25	23	Female	Nursing student
R26	23	Female	Nursing student
R27	23	Female	Nursing student
R28	23	Female	Nursing student
R29	34	Female	Nursing student, Paramedic graduate
R30	23	Female	Nursing student

development was inductive, which means that the codes were generated from the data using transcripts of the interviews. The process of themes generation involved organizing and clustering the codes into tentative themes, keeping in mind that a theme, according to Braun and Clarke, should depict “some level of patterned response or meaning within the data set”, while being of importance in regard to the research questions posed [25]. After they were both finished, they discussed their notes and impressions from the data as well as compared and reviewed their tentative themes and subthemes. Based on their discussions, the final themes and subthemes were defined and named, and the final report was produced. In case of any discrepancies, they were resolved through discussions within the team since, as was mentioned above, researcher triangulation was more focused on sharing the perspective and increasing insight into the data. When writing the manuscript, we also followed the standards for reporting qualitative research described by O'Brien et al. [26].

Rigor and trustworthiness

Throughout the study, we have taken several steps to ensure the accuracy and validity of the data. Firstly, in order to account for the potential risk of researcher bias, given the professional experiences of the first author, other researchers with different backgrounds and experience in conducting qualitative research studies were involved in the study from the very beginning. Additionally, researcher triangulation was used during data analysis to broaden the research perspective and insights into the data. In order to ensure the quality of the data, all interviews were recorded and transcribed. Furthermore, students were assured on many occasions during the recruitment and data collection phases about the validity and importance of all of their observations and experiences for us, either positive or negative. As our primary goal was to collect their true opinions, we wanted to minimize the risk of them hiding or suppressing some of their true thoughts on the topic. Finally, the data were analyzed using a recognized method, and the study was reported following established guidelines for reporting qualitative research papers.

Results

As a result of the analysis, we generated three themes related to nursing students' narratives about factors influencing their decision to pursue nursing as their future profession. They were presented and discussed in more detail below and summarized in Table 3, as well as in the form of a thematic map in Fig. 1.

Theme 1: making the choice – motivations behind the decision to apply for nursing studies

The first theme focuses on what prompted the respondents to choose nursing as their future profession in the first place. In their narratives, students circled back to when they had to decide on their future field of study and career path. At that point, most of them were fresh high school graduates, but some also had other prior educational and professional experiences. Therefore, the main focus of this theme is on the factors that aided their decision to apply for nursing studies, which we also tried to emphasize in the name of the theme.

The impact of previous decisions or life experiences

One of the factors mentioned by the students was their previous personal experiences, such as an illness of their own or a loved one's. Witnessing firsthand the work of medical professionals and the aid they bring to their patients made them want to pursue a profession that was useful to society and in which they could help other people. Before specifying their choice of study, students described themselves as very empathetic, wanting to help others, or caring for their siblings. As they pointed out, this was very helpful in choosing a field of study where they could continue their sense of caring for another person. Some of them described understanding this feeling only after starting their studies and completing their first internships with patients. Some of them also hesitated about which medical profession to choose but finally decided to become nurses due to factors like personal preferences after comparing the character of work and responsibilities of these professions or their plans for their private lives.

R2: "Actually, it is two things. First, I spent a lot of time in hospitals as a patient, both in my early childhood and later. I wanted to work in the hospital, and it seemed cool to me. The second thing was that I always wanted to study medicine, but then I went to the hospital for a few months and saw the work of nurses and decided that I absolutely did not want to be a doctor - I wanted to be a nurse, so that was deciding factor."

For other respondents, the choice of nursing as their field of study was a natural consequence of their earlier plans

or dreams of becoming a medical professional, which in some cases dated back even to their early childhood, as well as the educational decisions that resulted from them, including the biological-chemical profile of their high school education (in Poland, high school students often choose so-called profiled classes, in which some subjects are in the extended form to prepare them for their final exams and applying on their dream fields of study – in the case of medical faculties, these subjects are biology and chemistry).

R9: "Actually, it has been my dream since childhood. I always said I would work in a hospital and wanted to help people. And so, I am studying nursing."

Some respondents also admitted that nursing was not their first choice among the medical professions, as they initially intended to become physicians. However, they chose nursing instead after not having enough points on their final exams to get accepted.

R7: "I didn't originally get into medical studies, but I wanted to start studies related to medicine and work in a hospital and with a patient."

The impact of family and friends

The respondents' decision to become nursing professionals was also impacted by their willingness to follow in the footsteps of their family members and friends, who were medical professionals. In their narratives, they described how, even from an early age, they would hear different stories about situations in the hospital or saving human lives, which inspired their choice. In Polish conditions, the family can be an important aspect of a young person's decision-making process. As evidenced in some of the respondents' narratives, they may be guided to a specific profession based on family advice or a familiar type of work, such as having a nurse in the family. Therefore, in the examples provided below, we can observe how the family may positively influence the choice of field of study.

R1: "My grandmother was a nurse. These stories, well, when I was a child, they were very interesting to me."

R15: "My aunt, my mother's sister, is a surgical nurse, and she always told hospital stories at every family gathering. The whole family listened to them with open mouths."

Some respondents were also actively encouraged by their family members to become nurses due to the financial stability it offers and the good selection of available job positions.

Table 3 The outline of themes generated during the study

Making the choice – motivations behind the decision to apply for nursing studies.	
the impact of previous decisions or life experiences	"My grandfather was sick, and we had to take care of him. Well, actually, that's when the thought occurred to me that maybe this was it."
the impact of family and friends	"And my family encouraged me to do so, too. Go study nursing; you will have a good choice of jobs."
the impact of the media and television	"I often watched House, M.D. with admiration, how medical mysteries were solved, how dying patients were coming out of it completely healthy. I wanted that so much, too."
Defending the choice – experiences of external pressure undermining nursing as a career path.	
negative comments from family members or friends	"My mother is not happy. She thinks I am crazy and could not have chosen a worse job."
negative comments from other nurses	"Often, the nurses (older ones) have such an approach: My God, child, what are you doing? Such a young girl! Go work in the office!"
Re-evaluating the choice – confronting previous expectations and perceptions with the reality of nursing studies and nurses' work.	
the quality of nursing studies and feeling prepared for the requirements of the profession	"I think that I am prepared. Maybe my knowledge and skills are not at a super high level, but I think they are at such a level that, at the beginning, I can manage."
the role of support and interpersonal relations among staff members	"Something that discourages [from starting a work in the profession]? Such a toxic environment. I am so afraid of this."
observed conditions of medical personnel's work	"It depends largely on the hospital and the ward because some are clearly underfinanced. There are equipment shortages. Nurses have to work very hard to make up for that."
physical and emotional burden and the responsibility of nurses' work	"It is hard work, 12 h a day. We work from the morning until the evening, or vice versa, when there are night shifts, and this worries me very much, and I am afraid of it."
the financial stability of the nursing profession	"The opportunity to quickly earn money - it does not require long years of study, but you immediately enter this profession and earn money."
the abundance of different job prospects	"Nursing offers many paths you can follow - you can be on the wards, you can be in primary care, you can be a hospice nurse."
the prestige of the profession in the society	"Somewhere in Polish society, the nurse's position is still lower than that of other members of the therapeutic team, so often the perception of a nurse's work by patients or other staff members lowers their qualifications."

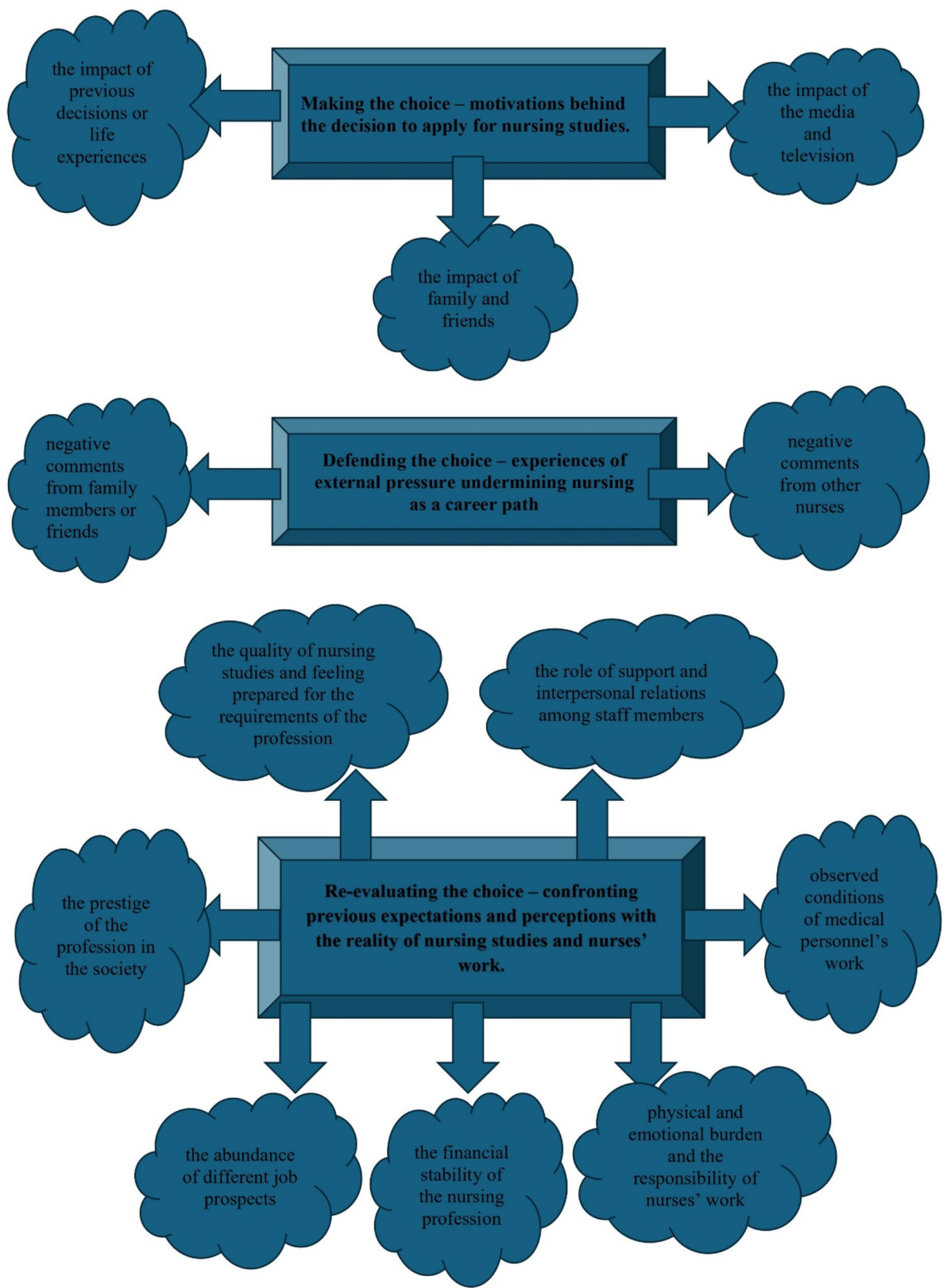


Fig. 1 Thematic map showing the outline of themes generated during the study

R6: “And my family encouraged me to do so, too. Go study nursing; you will have a good choice of jobs.”

The impact of the media and television

Finally, how the nursing profession is represented and portrayed in the media and television (e.g., TV shows) also positively impacted respondents’ willingness to pursue it as their future profession. They noticed that the image of medical professionals and their work created in these shows was mostly positive, making it appealing and attractive for them to want to become a part of this community. However, some respondents also acknowledged that the plotlines of these TV shows were more focused on romantic and social storylines than medical issues. Moreover, now, from the perspective of time, they also started to notice that the accuracy of the portrayal of the work of medical professionals may differ from reality.

R5: “I used to watch medical series. Well-known ‘*Na dobre i na złe*’ [For better and for worse – a Polish medical TV series], and I enjoyed it even though now, as time went by, I know that it is fiction and does not look like that. Well, the hospital was presented nicely, the employees were nice, and these relations were also shown at the doctor-nurse level. However, there were more physicians and such romances than actual medical things.”

Theme 2: defending the choice – experiences of external pressure undermining nursing as a career path

The second theme captures the narratives of some nursing students on recurring situations in which they felt their decision to study nursing was not received positively or even discouraged by some of the people relevant to them due to the stereotypes associated with the nursing profession, viewing it as less ambitious than becoming, e.g., a doctor, hard working conditions or the expected salary. The sense of hard work combined with the low prestige of the nurses’ profession in society and the limited respect it commands were also brought up in this context. Some examples of such situations recounted by the students gave the impression that they almost had to defend their choice, which prompted our decision to capture it in the name of this theme. Although, as also evidenced below, such a negative reaction to them wanting to become a nurse was fortunately not reported by all of them, it may have a tremendous negative impact on the individuals it happens to. Therefore, this theme attempts to analyze this phenomenon and focuses on different groups of people relevant to nursing students who negatively reacted to their choice of future profession and even tried to talk them out of it.

R12: “The fact that when people ask where you work or where you study, and the answer is a nurse [and they reply]: ‘Do you really want to wipe butts all your life?’ - such a typical old stereotype that’s totally discouraging.”

Negative comments from the family members or friends

The first important group of people showing disapproval of choosing nursing studies surfacing in students’ accounts were their family members and friends. In their case, the lack of support or negative feelings toward choosing nursing as a future profession seemed to stem from the desire to protect their loved ones from pursuing a profession that they believed was associated with hard work and low earnings, among others. It also manifested in mentioning these perceived negative factors associated with the profession. Although the respondents were aware that their family members were only trying to look after their best interests by suggesting alternative work opportunities, it made the respondents feel like their loved ones no longer regarded them as ambitious or making wise life-choices. As a result, the occurrence of such situations was a difficult experience for them, which tended to negatively influence their confidence in their choice of nursing.

R14: “My mother is not happy. She thinks I am crazy and could not have chosen a worse job. [...] A few of my friends did not even go to college, just doing some advertising, photography, or multimedia work. Well, they always tell me: you will be sitting from 7 a.m. to 7 p.m. in the ward, and well, for the same money, I will go and take a couple of photos.”

R18: “Well, over these three years, I have heard many comments that it is not a good profession. Some members of my family are still surprised by this choice.”

However, at this point, it should also be emphasized that although the decision to study nursing was not met with understanding and acceptance in some cases, other students reported a sense of pride and support from people close to them.

R8: “My husband, family, friends, everyone rooted for me very much all the time, and they really supported me and were interested in me during these three years. Everyone was really interested and always happy about my smaller and bigger successes, so there is a group of people who support me and are always rooting for me.”

Negative comments from other nurses

Some students also reported negative comments on their profession choice coming from members of the nursing profession, which was regarded as ironical and self-contradictory as it was quite neatly explained by the student quoted below:

R12: "Often the nurses (older ones) have such an approach: My God, child, what are you doing? Such a young girl! Go work in the office! And so, they tend to emanate such negative emotions [...] Although it's strange because, after all, a nurse knows what this job is like, she should also somehow be grateful and proud since they have done it all their life, and not just say to run away."

In this context, some of the negative comments of the personnel were also associated with students expressing their willingness to work in Poland after graduation.

R11: "Sometimes, the staff also approach us like, why are we studying this? We will not change anything anyway; it is best to leave immediately. In fact, whenever we go to a ward somewhere, everyone is surprised that we want to stay in Poland and work here as it's such a hole and nothing is happening and if we want better money, we have to move, preferably to Switzerland, because it's normal in Switzerland."

Theme 3: re-evaluating the choice – confronting previous expectations and perceptions with the reality of nursing studies and nurses' work

The last theme elaborates on nursing students' experiences associated with their studies, how they corresponded with their needs and expectations, and the influence they had on their current intentions regarding becoming a nurse. The time of their studies provided them with the first glance into their future profession, involving both their own observations and shared perspectives of their teachers, allowing them first opportunities to evaluate their choice of profession and confront them with their previous notions and ideas regarding the job of nurses. Since most of their classes took place at the hospital wards, many of the students' observations also reflect their experiences and impressions of the conditions of the work of medical personnel members in Poland and how they may have differed from what they previously imagined. As such, this theme serves as an overall product of students' hitherto educational and personal experiences and a final re-evaluation of the decision to work in the nursing profession after graduation. We tried to present the spirit of this theme in its title and the subthemes with examples of students' narratives on

factors influencing their current intentions to enter the profession after graduating.

The quality of nursing studies and feeling prepared for the requirements of the profession

In their narratives, participants were rather satisfied with the quality of the education provided during their nursing studies. Generally, they felt prepared for their future work, which worked in favor of their intentions to work in the profession in the future.

R21: "I think that I am prepared. Maybe my knowledge and skills are not at a super high level, but I think they are at such a level that, at the beginning, I can manage."

Moreover, one student even expressed joy that they might soon be able to use the acquired knowledge and skills in the work.

R27: "I am very happy. I can't wait for it [to start working in the profession] because finally, I will reach a slightly higher level than I am now, and I will finally be able to do what I have been learning for three years and put into practice the knowledge and practical skills I have acquired in my work."

However, respondents also noticed shortcomings in how their studies or particular classes were organized and conducted. Among them, they paid attention to the prevailing emphasis on theoretical knowledge during some classes and wished for a more practice-oriented learning approach as well as putting more emphasis on soft and communication skills learning. Moreover, while they understand that in the case of some practical skills, their learning may not be possible directly with patients, they both believed that they could be performed in simulated conditions and appreciated the efforts of their teachers who provided them with such occasions. Regarding the organizational aspects, students also made some observations on the need for a more careful analysis and coordination of details of their curriculum (e.g., learning outcomes) between the departments conducting the classes to avoid the chaos or confusion they sometimes experienced. A demand for more frequent updates of the literature sources used during the classes was also made, as students noticed that on rare occasions, the materials or sources used during the class were outdated, and the information presented was no longer accurate due to the changes in medicine.

R11: "We were not at all prepared in terms of how to talk to the family of patients, for example, in serious

conditions or after death, how to convey this death to this family.”

Given that the beginnings of their studies also overlapped with the COVID-19 pandemic ongoing at that time, some students noticed that the quality of their education at that time had also suffered due to their limited motivation and ability to focus during the online classes.

R1: “In contact form, one would certainly remember more. Mainly because sitting in front of the computer for so many hours is not effective. One can get very tired, especially the eyes, and it is harder to concentrate remotely at home than in a lecture hall where it is only the lecturer.”

Many respondents also noticed that the requirements and expectations towards them during the studies were high, and they sometimes struggled to keep up. Their narratives provide many examples of situations in which they felt overwhelmed, tired, and did not have enough time to learn, rest, or even eat due to their numerous obligations imposed by the university.

R6: “There were also days when we had classes all day long, and, for example, I left the house at 6 a.m. and came back at 7 p.m. It was hard; without any bigger break during the day, we were eating hot dogs in a hurry to get to our next class on time.”

The role of support and interpersonal relations among staff members

A significant part of students' impressions from their studies were also connected to their lecturers or members of the medical personnel they encountered during their classes. Some of them, who were supportive, helpful, and engaged in the didactic process, were positively assessed by students and seemed to positively influence their opinions toward the profession and reaffirm students' decision to pursue nursing as their future career. However, students also provided some examples of unacceptable behaviors they witnessed, which were directed toward them, other personnel members, or even patients. Students also cooperated with members of the medical staff during their internships. While, in many instances, they were able to meet people they described as role models by showing empathy for patients and professionalism of the profession, in other places, they also encountered people discouraged by their profession and with poor attitudes to work or toward them. For young people unfamiliar with the realities of work, it was a very discouraging experience, as evidenced by some of the exemplary quotes provided below.

R2: “There were departments that made me question my even being in those studies. And in the second year, I felt this the most when we had internships in one subject, and the teacher definitely tried to show us that we were not suited for the profession.”

R3: “It depends on the ward and the staff because we were in wards where it was really great - the medical equipment was there, and nurses were great, understanding and patient with patients and friendly towards us too because it was also important. But we were also in departments where simply the patients themselves were afraid to come to the hospital because they were afraid of the nurses.”

Consequently, students attach great importance to the quality of the interpersonal relations at their future workplace in making future decisions on their professional path.

R19: “[Regarding things impacting respondents' professional decisions] I think that maybe also people, that this is of great importance, because we also know, for example, that we would go to work in some place and not go in others. [...] I do not know if I would choose a completely random ward. I mean, I can enter a ward and watch people, but it is not like we will suddenly find out everything, and when we sit with people for a month during internships, we can see how the staff behaves and what contacts they have with doctors.”

R11: “Something that discourages [from starting a work in the profession]? Such a toxic environment. I am so afraid of this because recently, I was thinking and talking to my ward nurse about which operating theater I could go to work in, and she could not tell me which place would be good for me. She said it's like this there, it's like that there, there's a bad ward nurse there, the staff over there has a negative attitude.”

Observed conditions of medical personnel's work

During their practical classes at hospital wards, respondents also had the opportunity to observe the everyday conditions of nurses' work. Having the opportunity to go through several different departments with different work profiles and patient severity levels over the three years of their study, the respondents get to know the diverse nature and surroundings of a nurse's work. As they admit, in some cases, they differed from what they previously imagined. Among other things, the respondents paid attention to an equipment deficit, difficult working conditions or limited space and overcrowding in some of the wards and hospitals they visited. Such experiences show the students the potential problems and the

working conditions they might face in their future work, making them less-likely to want to work in those places.

R9: "It depends largely on the hospital and the ward because some are clearly underfinanced. There are equipment shortages. Nurses have to work very hard to make up for that."

A limited amount of space was also observed regarding the facilities intended for the personnel members to rest or have lunch. Respondents also observed that nurses' social rooms are often poorly equipped and do not have comfortable conditions.

R3: "It is mediocre, even worse than mediocre, because even the social rooms are not very well equipped. [...] even in those wards that were well-equipped with medical equipment, there were shortages when it comes to rest facilities for the staff"

Moreover, the respondents also had an impression that the position of nurses in this aspect seemed worse than that of physicians, for instance.

R11: "The hospital itself provides very few opportunities when it comes to the comfort of even simply eating a meal [...] I know, for example, that they are really very, I would say tragic places, where you eat standing up, or there is no microwave or anything at all [...]. Some letters are being written about, for example, I do not know, changes in social room or something, and they respond to doctors' complaints faster than to nurses', so there is still, unfortunately, injustice here."

Physical and emotional burden and the responsibility of nurses' work

Next, students also note the heavy burden of working with patients. They express concerns about the responsibility associated with it and making decisions that may affect the lives and health of other people.

R4: "I am afraid that I may not be able to cope mentally with, for example, the death of a patient, even though we have already dealt with death and the post-mortem toilet during our internship. I am also afraid of how I will react when, for example, a distraught family comes to me to pick up the belongings of a patient who is dead or for advice regarding, for example, a patient who is terminally ill. I am afraid that I will not be able to handle it mentally. Although I may not be able to cope physically either, for example, I do not know, because of some back

pain, which I already have now, and who knows what will happen when I start working."

Finally, also the staff shortages noticed by the students and the resulting overload and need for the medical personnel to work overtime were factors contributing to students' assessment of the conditions of nurses' work. Among the challenges of nurses' work, they also mentioned the night shifts and the need to work during the holidays.

R17: "[Regarding disadvantages of working as a nurse] I am very afraid of night shifts, so this is a disadvantage for me because I am a morning person. I can get up at 5 a.m., but at midnight, I'm already asleep, so it's more about the shift work because it's supposed to be a contract job, but you'll have to work those nights, so I guess that's what I'm afraid of - this irregularity in functioning"

The financial stability of the nursing profession

Another important factor listed by students considered by them is the ability to start earning money quickly and support themselves immediately after graduation. In this aspect, nursing was viewed as a source of financial stability and steady income.

R9: "The fact that you quickly gain experience, have a secure profession, and secure money at a young age. Compared to, for example, the physicians' profession, where the time of study is much longer, here, after three years, you already are in the profession."

The abundance of different job prospects

Another advantage of the nursing profession that students noticed was the wide variety of job opportunities available for nurses. They notice that nurses have greater liberty to change their workplace or type of work (different wards or hospitals, outpatient clinics, becoming an academic teacher, etc.). They note that it is a profession with a future that will always be in demand and in which it will always be possible to find a job.

R5: "Nursing offers many paths you can follow - you can be on the wards, you can be in primary care, you can be a hospice nurse [...], and you can also work in scientific research."

R10: "Simply many possibilities. I am currently planning to work in the operating theater. If I do not like it in the operating theater, I can always go to a completely different department, so there are many possibilities."

The prestige of the profession in the society

The respondents also brought up the sense of the low prestige of the nurses' profession in society and the limited respect it commands among the patients. As they noticed, some patients or members of the society still present very limited knowledge of nurses' competencies and qualifications, narrowing them down to tasks like helping with patients' personal hygiene or changing bedsheets.

R11: "Recently, someone told me that the nurse only changes diapers and does not do anything else, so I explained that the nurse can do other things. And this person asked whether we actually do these [other] things. The public does not really know what we do in the hospital, and they really still think that we change diapers all the time. It is sad because there is a profession of a medical caregiver, and some people still think that it is one and the same, that a medical caregiver and a nurse are the same."

Some students also notice that this outdated perception slowly begins to change both in terms of patients' awareness and the legal regulations broadening nurses' competencies. However, this process of changing public awareness seems to require an active effort from the nursing community to change common misperceptions.

R2: "It is slowly getting better now, but somewhere in Polish society, the position of a nurse is still lower than that of other members of the therapeutic team, so often the perception of a nurse's work by patients or other staff members lowers their qualifications. And yet you must put much work into defending your position."

Interestingly, several respondents also considered that some of the representatives of the nursing community might impede the process of broadening nurses' competencies or professional independence due to, for instance, their fatigue, work overload, and resulting avoidance of taking up more tasks.

R9: "The nurses are well trained but do not fully use all their competencies. They do not fully use this knowledge, mainly because there is too little staff, and this fatigue is visible."

Discussion

In this qualitative study, three themes were generated to capture different factors that influence the decision of young people in Poland to choose nursing as their future career path, as well as how they change or progress over time during their studies.

The first theme captured participants' narratives on reasons why they applied to nursing in the first place, shortly after leaving high school. For many of them, the provided rationale involved their own personal experiences, such as an opportunity to observe the nursing personnel's work during their hospital stay or the hospitalization of a family member. This seems consistent with the reports of Natan and Becker [27], demonstrating a correlation between intrinsic factors and choosing nursing as a career and a predisposition for this choice among individuals with motivation to help others. Other reports even show a bigger influence on nursing students in choosing this profession of altruistic factors, like helping others or professional interest, than more materialistic ones [28]. However, the importance of the latter should not be underestimated. It has been shown that although intrinsic motivation seems to be a common trait for healthcare professionals in general, the presence of some misguided conceptions about the nursing profession in society regarding the remuneration, character, and recognition of nurses' work may deter young people from choosing it [12, 14]. Noteworthy, our students did not mention issues like good salary, job prestige, or social status as factors that prompted them to apply for nursing, which may be connected with the fact that in Polish society, the profession of a nurse is still stereotypically considered as a low paid job with fewer development opportunities. However, it should be emphasized that the situation has been changing over the last few years, as our respondents have also observed.

Having a family member or a close role model in the nursing profession was also indicated as an important factor influencing the choice, serving as an inspiration sometimes even from an early childhood. Meanwhile, previous research also points to the significance of similar factors like prior exposure to healthcare (in the form of, e.g., looking after an ill relative, receiving care and having the opportunity to observe the work of a healthcare professional, voluntary work and different activities at school, or accounts of someone close), personal interests and subjects taken at school, or ones' academic abilities [12, 13]. During the interviews, some respondents also presented their decision to become a healthcare professional due to their educational interests and previous plans. However, some of them also admitted that they initially wanted to become doctors and nursing was rather a second choice, which may serve as another indication of the above-mentioned stereotypical perception of the nursing profession still persistent in society. A similar observation was made in the study by Liaw et al. [12], where the respondents perceived nursing as the only choice due to being unable to get into other courses, and as a result, it was even named a "dumping course."

On the other hand, some respondents in our study were also encouraged to apply to nursing studies because of the positive image of healthcare professionals, including doctors and nurses, in the media and on television. This finding seems comparable with observations of Terry and Peck [29], where fictional medical TV programs ranked sixth place among the motivations of students to become a nurse, following some of the aforementioned factors (e.g., wanting to help people or make a difference, previous personal or family health history, having a nurse relative, or job flexibility), but preceding factors like job security, good income, always wanting to be a nurse, or following the wishes of family members. Such programs were recognized as introducing a positive and appealing image of healthcare professionals' work, which also seems consistent with the observed correlation between the image of the profession and the decision to pursue nursing [27]. Moreover, not only were such TV programs shown to encourage the choice of nursing among some students, but they also helped them better understand the reality of patient care [29]. However, from the time perspective, our students have acknowledged several issues with these programs. Apart from discovering occasional inaccuracies in the portrayal of the medical plotlines and the reality of healthcare professionals' work, which was also reported in previous studies [29], or bigger focus on their characters' romantic entanglements than medical issues, our respondents were also under the impression that the work of nurses in TV series they follow is often unnoticed, marginalized, or presented as subservient to physicians, which may inadvertently contribute to the societal image of the profession in Poland.

Meanwhile, this image often stems from stereotypes, misbeliefs, or misinterpretations of nurses' profession in the media and varies from the nurses' image of their profession [30]. Previous research has pointed out that the still prevalent historical and unidimensional public image of nursing and existing negative stereotypes may negatively influence the decision to choose nursing as a career and discourage students potentially interested in it [31, 32]. Some common examples of stereotypes and misconceptions regarding nursing referenced in the literature include its image as a feminized profession with fewer development opportunities, nonautonomous, subordinate to physicians' orders, and focused on performing physical tasks [5, 12, 13, 30, 33]. Another stereotypical trait regarding the presentation of nursing in the media involves the over-sexualization of nurses' image, for instance, the portrayal of nurses dressed in sexy clothes on social media diminishing the societal perception of the professionalism of the profession [33]. In fact, several types of stereotypical representations of the nurses' profession in the media have been distinguished by other

authors, including "angels of mercy, the doctor's handmaiden, battleaxe, and sexy nurse" [30].

Additionally, the way that the nursing profession is perceived in the eyes of the general public also impacts the reception of students' choice to study nursing by other people, as evidenced in the second theme. During the interviews, some respondents described how they almost had to 'defend' their choice to study nursing due to its stereotypical image as a subservient profession, only taking orders from a doctor and without prospects for making a career. One of the groups of people that were mentioned by students in this regard were their parents and relatives, pointing out some common stereotypes like low income, limited opportunities for professional development, and the fact that main activities would involve taking care of patients' hygiene. These findings seem to be mirrored by a study conducted in Singapore [12]. As described by its authors, for culturally determined reasons, Asian students tend to attach greater importance to the expectations of their parents than their own choices. In the meantime, Asian parents may object to their children's choice of nursing as a field of study due to their high expectations regarding the prestige and competence fulfillment of their progeny's future profession. What is more, choosing nursing by students with good grades was regarded as 'wasting' them, and their parents and peers even attempted to persuade them to consider other options [12]. On the other hand, receiving support and encouragement from family members or spouses or having a nurse as a family member were shown to constitute important factors enabling students to continue studying nursing [34].

Some negative comments regarding respondents' choice of nursing as their career path also came from other nurses encountered, for instance, during internships in hospital wards. Some of them expressed unfavorable opinions about the profession, suggesting quitting nursing altogether or leaving Poland and working abroad. This may, in turn, serve as a symptom of possible occupational fatigue, burnout, and regret regarding career choice in this professional group. A recent survey study among American nurses showed, for example, that 15% of them regretted their choice of nursing [4]. Moreover, this feeling of regret showed a high association with burnout [4], to which, as it was already mentioned before, healthcare professionals are highly susceptible. Many of the literature-referenced factors connected to burnout among nurses, including work overload, low staff numbers, long working hours, the stressful and demanding character of the job, poor leadership and leader support, conflicts in the team, or low control, autonomy and variety of performed tasks [35], seem to be also present in the Polish healthcare setting. A recent study on nurses in Poland highlighted the importance of factors like

increased staff numbers, better salary and working atmosphere among their expectations towards reducing professional burnout [36]. Finally, the last theme describes how students' initial perceptions regarding their choice of nursing were confronted with the reality of nursing studies and observed conditions of nurses' work and what now, after almost finishing their studies and close to graduation, influences their decision on continuing their further career in nursing. In this context, our study recognized several factors considered by students, including the quality of their studies and whether they feel prepared for the requirements of the profession, the role of support and interpersonal relations among staff members, observed conditions of medical personnel's work, physical and emotional burden and the responsibility of nurses' work, the financial stability and abundance of different job prospects for nurses, or the issue of the prestige of the profession. Although these issues were mentioned by students contemplating the issue of entering the profession after graduation, some of them generally seem comparable with the aforementioned factors associated with newly registered nurses' intention to leave nursing referenced in previous studies [11]. This shows that some of the problems experienced by the nursing community are also observable to students and may influence their career decisions. Moreover, a change can be noticed in the character of factors motivating students to apply for nursing and then enter the profession after graduation. While in the former case, the intrinsic factors seemed to predominate, which is consistent with previous literature reports [14], in the latter case, the extrinsic factors started to occur in students' narratives. In Polish conditions, this may again be explained by the stereotypical notion of nursing as a low-paid job with limited promotion and development opportunities, described in greater detail above. Meanwhile, the time of their studies seemed to allow the respondents to challenge these stereotypes, showing the advantages of working in the profession, such as a steady income, job security, and the availability of different professional opportunities. A similar point was also previously raised in the literature in a context that expected future income, career prospects, and easiness of finding a job are important factors for students, and the societal notion of insufficient earnings in the nursing profession, for instance, might deter potential applicants from choosing it [12, 14]. However, it would seem that the situation may depend on a given country and the attractiveness of wages and work conditions in healthcare. For example, a study in Mauritius showed that nurses are rather motivated by extrinsic factors, and nursing was considered attractive due to good income, job security, or social status, as well as paid education and migration possibilities [37]. Regarding their impressions from their studies,

students generally felt they were adequately prepared for their professions, although few suggestions for improvement were mentioned, including increasing emphasis on practical or communication skills learning, bigger involvement of simulated conditions in the learning process, and the need for coordination of curriculum details between different departments conducting the classes. Additionally, similarly to the impressions expressed by the participants in our study, previous research on nursing students conducted in Poland also showed their insufficient preparedness for dealing with the death of a patient and the need for more education on that topic [38]. Respondents also paid attention to the material overload they experienced, indicating that the number of activities during the day was excessively burdensome for them. Meanwhile, it has been observed that as the education level and requirements are increasing at medical universities along with new subjects and more learning hours, instead of an increase in their professionalism, students give accounts of being overloaded and under constant stress [39]. This situation may be additionally exacerbated by the accounts of some unacceptable behaviors they encountered as students from some of the healthcare staff members. Nursing students in our study seemed to attach great importance to their teaching nurses because they were the first to show them what their future profession is and what it involves. In this sense, they seemed to serve as role models, encouraging and supporting them in their career choices. Therefore, the quoted instances when the students were discouraged or even told they did not have what it takes to be a nurse must have been especially painful for them. The time of their studies also gave the students the opportunity to observe the conditions of nurses' work along with some of its problems like staff shortages, conditions at wards, occupational stress, overwork, and burdening character of the nursing profession. It seems worth reminding that similar problems were linked in research to burnout among nurses [35]. The notion of nursing as demanding, burdening, and stressful work was also evidenced in previous studies among healthcare students [12]. Some students in our study expressed particular concerns regarding the burdening character of shift work. Interestingly, in a study conducted on a group of nurses in Poland, the ones working in a shift system reported feeling most burden (both physical and mental) and rated their conditions of work as worse [40]. Although stress can occur in practically every occupation, healthcare professionals are especially susceptible to it [10]. For example, the profession of a nurse is considered the fourth most stressful profession [41]. On the other hand, the fact that students had the opportunity to familiarize themselves with the conditions of work at certain wards may help reduce their stress and reality shock and ease

their smooth transition into the role of a nurse, which in turn seems crucial for ensuring staff retention [42]. Additionally, students surveyed on the choice of their first post were shown to prefer the ones they regarded as most supportive [42]. This seems to be mirrored by the results of a recent study conducted on Polish nurses working in a clinical hospital, showing a positive association between the levels of support received at work and their well-being [43]. Another study among the factors affecting the nurses' choice of the first ward mentioned the leading role of the type of patients, being able to utilize the knowledge from the studies, or professional development opportunities [44]. Therefore, the results of this study, along with previous literature reports, seem to suggest a strong need for action in terms of increasing the support offered to the students and easing their transition into assuming their future professional life. These may involve, e.g., offering the nursing students the opportunity to complete parts of their vocational internships at wards chosen by them, allowing them the chance to inspect them, or introducing tutoring programs for nursing students to provide them with more individual support, professional advice and mentoring throughout their studies.

Overall, given the above-mentioned gaps in the current state of knowledge, the strength of this study lies in the provided new information on the issues identified during the literature review and a detailed overview of the factors influencing the choice of nursing as the field of study on the example of young people in Poland, their motivations to further pursue nursing as their profession after graduation, as well as potential changes in their motives in the course of their educational path. As a result, it offers a unique perspective, allowing a comparison of their motives over time, something which, to the authors' best knowledge, was not previously attested in the literature. However, the presented results should also be interpreted within the study's limitations, which we want to acknowledge. Although the decision to limit the inclusion criteria only to students' consent to participate and them being in the final year of their study was aimed at increasing the research perspective, allowing any potential respondent willing to share their opinions to participate, it also could create a risk that students interested in participating could have more potent views on the topic than the rest. Additionally, students participating in the interviews may have felt the need to conceal or suppress some of their true thoughts on the topic. Trying to minimize these risks, we emphasized on many occasions during the recruitment and data collection phases that our primary goal was to collect their true opinions and that all of their observations and experiences, either positive or negative, were valid, important, and valuable for us. There is also a risk of researcher bias that should be mentioned, given

the first author's educational and professional experiences as a nurse. However, in order to mitigate this, a second author with different professional and educational experiences was involved in the process of data analysis (researcher triangulation). Next, as it was a single-center study from Poland, the perspectives of nursing students from other settings and countries may differ. Nevertheless, given the qualitative character of the present study, which allowed us to obtain in-depth insights into students' perspectives on the topic and previously identified gaps in the literature, its findings may prove helpful and relevant to the broader audience outside of Poland. However, further research is needed to investigate the topic in other settings. Additionally, to increase the generalizability of our findings, we intend to use the results of this study to create a survey and examine this phenomenon further in a cross-sectional study on a broader sample of nursing students in Poland. Finally, given that due to the adopted methodology, students were only retrospectively asked about what prompted them to apply to nursing for instance, which may be viewed as another limitation of this study, another prospective research project is also planned, in which we plan to collect data from a group of students over an extended period of time to gain a better understanding of the issues identified during this study.

Conclusions

Among the motivations behind the decision to apply to nursing, students tended to mention the impact of intrinsic factors, like their previous decisions, personal interests, subjects taken at high school, previous life experiences involving the healthcare sector, and the associated ability to observe nurses or other healthcare professionals at work, as well as having a close role model among family members or friends. The positive influence of the presentation of healthcare professionals' work in the media was also mentioned as an important factor. However, some students also reported negative emotions, reluctance, or objection from their family members or friends regarding their decision to become nurses, giving the impression that they almost had to defend their choice. Similar aversion was also reported to come from some of the members of the nursing community, creating a cognitive dissonance for the respondents. Another challenge was the confrontation of their initial motivations and expectations with the reality of nursing education and the work of the nurses observed during their studies. The identified factors taken into consideration by students in their decision to enter the profession after finishing their studies involved the quality of their studies and whether they feel prepared for the requirements of the profession, the role of support and interpersonal relations among staff members, observed conditions of medical personnel's work, physical and emotional burden and

the responsibility of nurses' work, the financial stability and abundance of different job prospects for nurses, or the issue of the prestige of the profession. While most of the respondents seemed rather inclined to work in the profession after graduation, the detailed analysis of associated factors seems beneficial to both offer support to struggling students and enhance the experience of future young nursing staff members. From the practice point of view, the positive aspects mentioned by the respondents can be used as a reinforcement to strengthen the intention to enter the profession among students and fresh graduates or promote the nursing profession and the advantages of working as a nurse in society, including young people potentially willing or hesitating to choose nursing as their field of study. On the other hand, the negative aspects, disadvantages, or problems described by the students could serve as an indication for decision-makers on necessary steps for improvement to increase the support offered to young adepts of nursing and the comfort of their work in the profession.

Abbreviations

PUMS Poznan university of medical sciences

Acknowledgements

We would like to thank all our respondents for participating in the study.

Author contributions

AC and PP contributed to the study conception and design; AC contributed to the data collection; AC and PP contributed to the analysis and interpretation of the data; AC and PP wrote the initial draft of the article with revision by RM. All authors read and approved the final manuscript.

Funding

No funding was received for this research.

Data availability

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

The project of the study was submitted to the Bioethical Committee of the Poznan University of Medical Sciences, which decided that its approval was not necessary under Polish law since the study was not a medical experiment and did not involve patients (Decision No. KB-987/22). Informed consent was obtained from all participants of the study. All methods were performed in accordance with the Declaration of Helsinki.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Author details

¹Department of Medical Simulation, Poznan University of Medical Sciences, Poznan, Poland

²Department of Medical Education, Poznan University of Medical Sciences, 7 Rokietnicka St, Poznan 60-806, Poland

References

1. Eurostat. Healthcare personnel statistics - physicians. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Healthcare_personnel_statistics_-_physicians#Healthcare_personnel. Accessed 17 May 2021.
2. Eurostat. Healthcare personnel statistics - nursing and caring professionals. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Healthcare_personnel_statistics_-_nursing_and_caring_professionals#Healthcare_personnel_E2.80.94_nursing_professionals. Accessed 17 May 2021.
3. Puls Medycyny. Raport: po pandemii 15 proc. lekarzy zamierza odejść z rynku pracy. 2020. <https://pulsmedycyny.pl/raport-po-pandemii-15-proc-lekarzy-zamierza-odejsc-z-rynku-pracy-1006274>. Accessed 19 Dec 2020.
4. Dyrbye L, West C, Johnson P, Cipriano P, Peterson C, Beatty D, et al. Original research: an investigation of career choice regret among American nurses. *AJN. Am J Nurs.* 2020;120:24–33.
5. Zhang Z, Yang C, Wang Y, Deng G, Chang J. Investigating the intentions and reasons of senior high school students in registering for nursing education in China. *BMC Nurs.* 2023;22:311.
6. Pieniawska K, Śmiech K, Bar K, Pawlas K. Zawód Przez zawodem – czy Wypalenie Może Objawiać Się Już Na Studiach? Badanie Populacji Polskich Studentów Medycyny can burnout manifest itself in college? A study of Polish medical students' population. *Med Srod.* 2017;20:22–31.
7. Halperin SJ, Henderson MN, Prenner S, Grauer JN. Prevalence of anxiety and depression among medical students during the Covid-19 pandemic: A Cross-Sectional study. *J Med Educ Curric Dev.* 2021;8:238212052199115.
8. Luberto CM, Goodman JH, Halvorson B, Wang A, Haramati A. Stress and coping among health professions students during COVID-19: A perspective on the benefits of mindfulness. *Glob Adv Heal Med.* 2020;9:216495612097782.
9. Zis P, Artemiadis A, Bargiotas P, Nteveros A, Hadjigeorgiou GM. Medical studies during the COVID-19 pandemic: the impact of digital learning on medical students' burnout and mental health. *Int J Environ Res Public Health.* 2021;18:349.
10. Pulido-Martos M, Augusto-Landa JM, Lopez-Zafra E. Sources of stress in nursing students: a systematic review of quantitative studies. *Int Nurs Rev.* 2012;59:15–25.
11. Lyu XC, Huang SS, Ye XM, Zhang LY, Zhang P, Wang YJ. What influences newly graduated registered nurses' intention to leave the nursing profession? An integrative review. *BMC Nurs.* 2024;23:1–19.
12. Liaw SY, Wu LT, Holroyd E, Wang W, Lopez V, Lim S, et al. Why not nursing? Factors influencing healthcare career choice among Singaporean students. *Int Nurs Rev.* 2016;63:530–8.
13. Liaw SY, Wu LT, Chow YL, Lim S, Tan KK. Career choice and perceptions of nursing among healthcare students in higher educational institutions. *Nurse Educ Today.* 2017;52:66–72.
14. Wu LT, Low MMJ, Tan KK, Lopez V, Liaw SY. Why not nursing? A systematic review of factors influencing career choice among healthcare students. *Int Nurs Rev.* 2015;62:547–62.
15. Ait Ali D, Ncila O, Ouhamou S, Rizzo A, Chirico F, Khabbache H. Motivations driving career choices: insights from a study among nursing students. *SAGE Open Nurs.* 2024;10.
16. Bioethics Committee at the Poznan University of Medical Sciences. https://bioetyka.ump.edu.pl/EKSPERYMENTY_MEDYCZNE_BADANIA_NAUKOWE_NIES_PONSOROWANE.html
17. British Educational Research Association (BERA). Ethical Guidelines for Educational Research, fourth edition. (2018). 2018. <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2018>
18. Trainor LR, Bundon A. Developing the craft: reflexive accounts of doing reflexive thematic analysis. *Qual Res Sport Exerc Heal.* 2021;13:705–26.
19. Volpe RL, de Boer C, Wasserman E, Van Scoy LJ. Can an arts course help mitigate medical student burnout? *Med Sci Educ.* 2022;32:1023–32.
20. Agarwal SD, Pabo E, Rozenblum R, Sherritt KM. Professional dissonance and burnout in primary care. *JAMA Intern Med.* 2020;180:395.
21. Kelly LA, Lefton C, Fischer SA. Nurse leader burnout, satisfaction, and Work-Life balance. *JONA J Nurs Adm.* 2019;49:404–10.
22. Tavella G, Parker G. A qualitative reexamination of the key features of burnout. *J Nerv Ment Dis.* 2020;208:452–8.
23. Francis J, Eccles MP, Johnston M, Walker AE, Grimshaw JM, Foy R, et al. Constructing questionnaires based on the theory of planned behaviour: A manual for health services researchers. Newcastle upon Tyne: Centre for Health Services Research, University of Newcastle upon Tyne; 2004.
24. Braun V, Clarke V. To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qual Res Sport Exerc Heal.* 2021;13:201–16.

25. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3:77–101.
26. O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med*. 2014;89:1245–51.
27. Ben Natan M, Becker F. Israelis' perceived motivation for choosing a nursing career. *Nurse Educ Today*. 2010;30:308–13.
28. Halperin O, Mashiach-Eizenberg M. Becoming a nurse — A study of career choice and professional adaptation among Israeli Jewish and Arab nursing students: A quantitative research study. *Nurse Educ Today*. 2014;34:1330–4.
29. Terry D, Peck B. Television as a career motivator and education tool: A Final-Year nursing student cohort study. *Eur J Investig Heal Psychol Educ*. 2019;10:346–57.
30. ten Hoeve Y, Jansen G, Roodbol P. The nursing profession: public image, self-concept and professional identity. A discussion paper. *J Adv Nurs*. 2014;70:295–309.
31. Price SL, McGillis Hall L. The history of nurse imagery and the implications for recruitment: a discussion paper. *J Adv Nurs*. 2014;70:1502–9.
32. Price SL, McGillis Hall L, Angus JE, Peter E. Choosing nursing as a career: a narrative analysis of millennial nurses' career choice of virtue. *Nurs Inq*. 2013;20:305–16.
33. Andina-Díaz E, Ventura-Miranda MI, Quiroga-Sánchez E, Ortega-Galán ÁM, Fernández-Medina IM, Ruiz-Fernández MD. Nursing students' perception about gender inequalities presented on social networks: A qualitative study. *Int J Environ Res Public Health*. 2023;20:1962.
34. Cameron J, Roxburgh M, Taylor J, Lauder W. An integrative literature review of student retention in programmes of nursing and midwifery education: why do students stay? *J Clin Nurs*. 2011;20:1372–82.
35. Dall'Ora C, Ball J, Reinius M, Griffiths P. Burnout in nursing: a theoretical review. *Hum Resour Health*. 2020;18:41.
36. Marczak P, Milecka D. Professional burnout of nurses and the level of rationing of nursing care: an observational preliminary study. *BMC Nurs*. 2024;23:269.
37. Hollup O. Nurses in Mauritius motivated by extrinsic rewards: A qualitative study of factors determining recruitment and career choices. *Int J Nurs Stud*. 2012;49:1291–8.
38. Szczupakowska M, Stolarek P, Roszak M, Głodowska K, Baum E. Patient's death from the perspective of nursing students. *Front Public Heal*. 2021;9.
39. Chmielewski J, Łoś K, Łuczyński W. Mindfulness in healthcare professionals and medical education. *Int J Occup Med Environ Health*. 2021;34:1–14.
40. Misiak B, Sierżantowicz R, Krajewska-Kulak E, Lewko K, Chylińska J, Lewko J. Psychosocial Work-Related hazards and their relationship to the quality of life of Nurses—A Cross-Sectional study. *Int J Environ Res Public Health*. 2020;17:755.
41. LIAO R-W, YEH M-L, LIN K-C, WANG K-Y. A hierarchical model of occupational burnout in nurses associated with Job-Induced stress, Self-Concept, and work environment. *J Nurs Res*. 2020;28:e79.
42. Wareing M, Taylor R, Wilson A, Sharples A. The influence of placements on adult nursing graduates' choice of first post. *Br J Nurs*. 2017;26:228–33.
43. Tomaszewska K, Kowalczyk K, Majchrowicz B. Correlations between well-being of nurses and psychosocial working conditions – a descriptive cross-sectional study. *Front Public Heal*. 2024;12.
44. Palese A, Tosatto D, Mesaglio M. Process and factors influencing Italian nurse graduates' first choice of employment. *J Nurses Staff Dev*. 2009;25:184–90.

Publisher's note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.