

## Project

### **A nurse of the 21<sup>st</sup> century**

#### **A map of risks in the nursing profession in current social and economic conditions**

The work on creating a Risk Map in the nursing profession was carried out in national working teams. It is worth emphasizing that since the second partnership meeting, representatives of head nurses and people involved in the development and training of personnel in hospitals cooperating with partners participated in the project teams. Project teams in all partner countries consisted of representatives of partner organisations and entities cooperating with them, representing the health care or education industry, involved in training human resources for health care. In the case of the Polish team, they were the representatives of the Lower Silesian Oncology Center, the Brzeskie Medical Centre and the Lower Silesian Chamber of Nurses and Midwives. One also established cooperation with the State Higher Vocational School in Głogów, which offers courses in nursing, and invited a representative of a local government unit – a plenipotentiary of disabled people in Siemianowice Śląskie – to cooperate. In the case of the Belgian Partner, the project team was supported by people representing the University Hospital of Antwerp (UZA), as well as Thomas More University of Applied Sciences in Mechelen which educates nursing staff in Flanders. The German Partner invited the representatives of health care industry (hospital directors), as well as those associated with the training of medical staff working at the Institute of Vocational Training, an organisation managing hospitals in Berlin. It is worth emphasizing that each of the Partners displayed a very serious approach towards project tasks. The number of people involved in the preparation of presentations, reports, etc., and participating in project meetings, and above all, their decision-making role (directors, managers of hospitals or other healthcare centres), significantly exceeded the framework planned in the project.

To identify and measure the main risks, the Leader prepared a questionnaire form as an attachment to this study. It was translated into English and presented at kick off meetings to the Belgian and German Partner separately. The Belgian Partner, after consulting UZA employees, decided not to carry out a survey among the mid-level medical staff of a partner hospital (claiming that too many surveys are addressed to hospital nursing staff). Instead, they proposed to prepare the analysed issues by means of individual interviews and desk research conducted as part of existing data. The material prepared in this way was an introduction to the discussion which took place during the partner meeting in Belgium in March 2019. The German Partner, on the other hand, approved the implementation of joint research and determination of similarities and differences in the assessment of nurses from Poland and Germany. The questionnaire form was translated into German, underwent a calibration process and a final language correction. The process appeared to be time-consuming and lasted from December 2018 to March 2019, but at the same time provided a full reflection of the intentions included

in the Polish questionnaire form. Ultimately, the German Partner conducted quantitative research in German hospitals in the period of May-June 2019.

Ultimate implementation of the task by individual Partners:

- The Leader – quantitative research carried out among nursing staff employed in Lower Silesian and Silesian hospitals – **a sample of 632 people**, implementation period of October 2018 – March 2019, support from the Lower Silesian Chamber of Nurses and Midwives, presentation of preliminary research results (sample N = 281 limited to studies conducted in autumn 2018) during a partner visit to Belgium in March 2019.
- The Belgian Partner – development of a desk research report on the needs and risks in the nursing profession, which was presented during a meeting in Belgium.
- The German Partner – quantitative research carried out among nursing staff employed in German hospitals – Neubrandenburg and the surrounding area / City Clinic – **a sample of 115 people**.

The results of quantitative research in Poland and Germany were next analysed by the Leader. One focused on a comparative analysis looking for similarities and differences in opinions given by Polish and German nurses.

Summarising the developed method of project results implementation, one should highly appreciate it due to the multi-faceted approach to the topic. On the one hand, research on a group of nurses conducted by the Leader and German Partner gave the opportunity to directly include representatives of the main target group and thus obtain answers to the questions posed in the project. On the other hand, desk research conducted by the Belgian partner allowed for taking a look at the problem of risks in the nursing profession from a broader perspective, including key issues such as healthcare expenditure or activities undertaken in the context of demographic and social processes observed in Europe, including, in particular, the ageing of the population. The analyses prepared by the project Teams are separate documents. Below one presented only some of the more important results of comparative research based on the primary research carried out in Poland and Germany.

Research samples in Poland and Germany, used in the survey based on metric features such as gender, age, seniority and nature of work (decision-making, non-decision-making), are presented in figure 1 and 2. However, it is worth pointing out that they differed significantly in both analysed groups. In the Polish sample the vast majority was represented by women (94%), while in the German one over 1/4 of the respondents were men (26%). This fact probably results from greater feminisation of this profession in Poland compared to the situation in Germany. Differences were also observed in relation to the character of the position held - in the Polish group there were fewer people performing managerial functions – 16% compared to 21% in the German group. The biggest differences, most likely influencing possible discrepancies in answers to survey questions, were observed in the area of respondents' age and seniority. The Polish sample included people mainly from older age groups – as many as 63% of the respondents were over 45 years old, including 21% of those aged 56 and more. For comparison, in the German sample only 24% of respondents were 45 years old, and only 3% aged 55 and more.

Significant differences in the age of respondents from both groups also influenced the differences in their seniority. In the Polish sample, 53% of respondents were people with over 25 years of work experience, while in the German sample such respondents constituted only 10%. This was also the sample where most respondents had 5-15 years of work experience (42%).

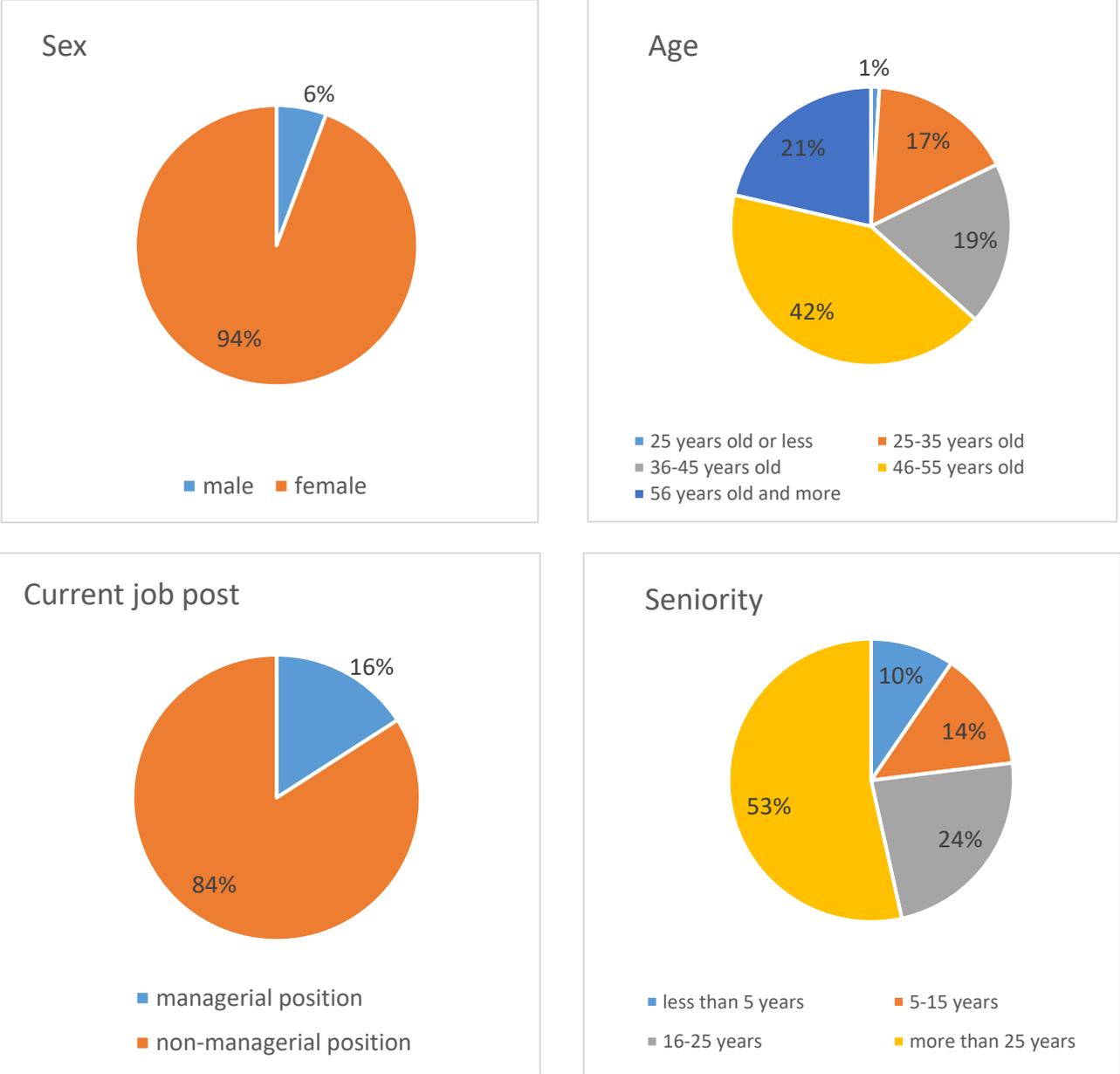


Figure 1. Metrics data for the Polish sample, N = 632. Source: own work.

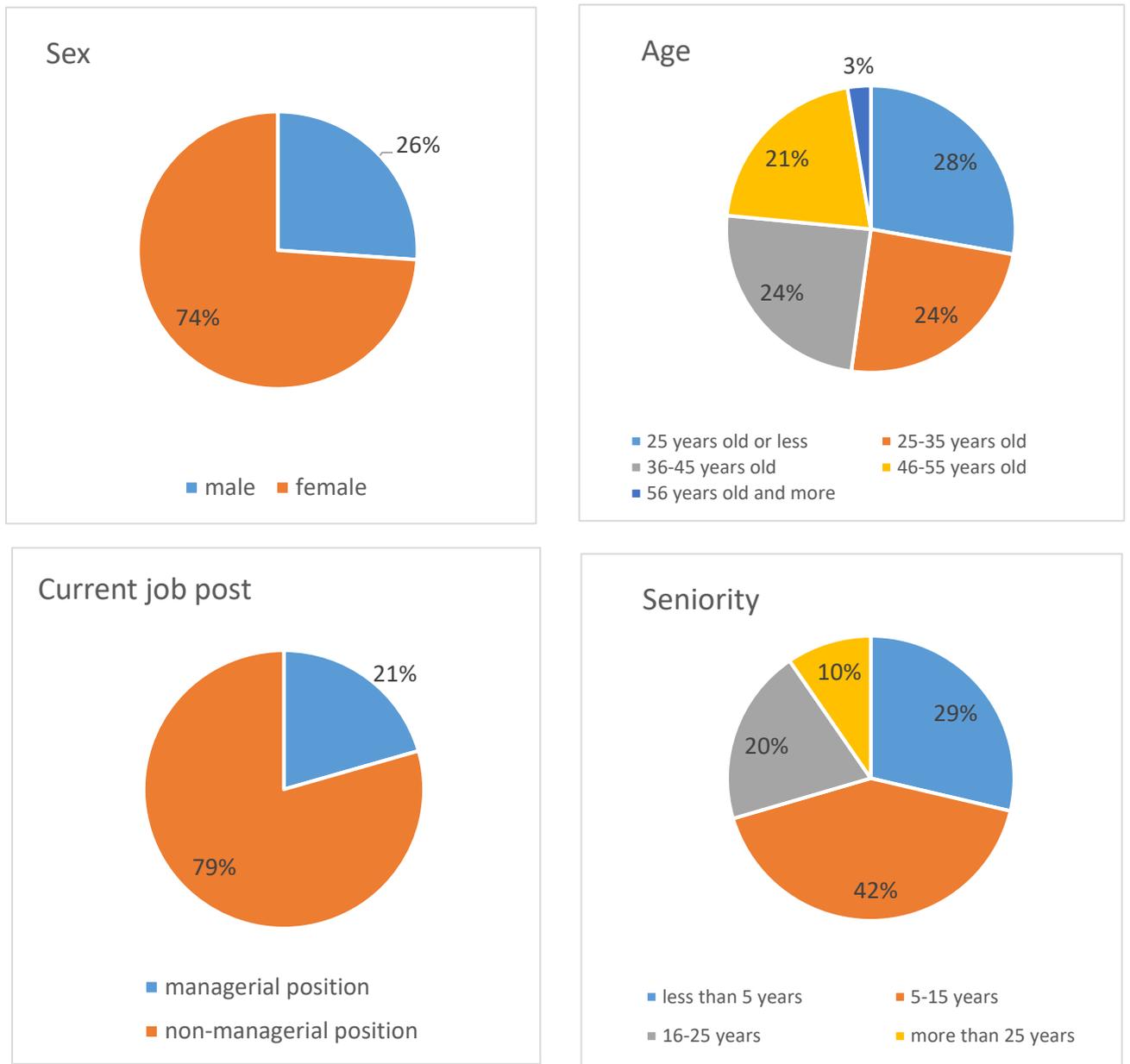


Figure 2. Metrics data for the German sample, N = 115.  
Source: own work.

As part of the survey, the respondents were asked three questions related directly to risks in the nursing profession, desirable skills, as well as lacking skills in nursing profession training. The questions were as follows:

1. What do you think are the biggest risks in the nursing profession in the coming years?
2. What do you think are the most desirable skills in the nursing profession?
3. What do you think are the lacking skills in nursing profession training?

While answering each of those questions, the respondents were asked to mark three most important issues within the cafeteria. They could also enter their own suggestions using “other” option. Figures 3, 4 and 5 show differences in the frequency of responses to individual cafeteria variants obtained in the Polish and German sample.

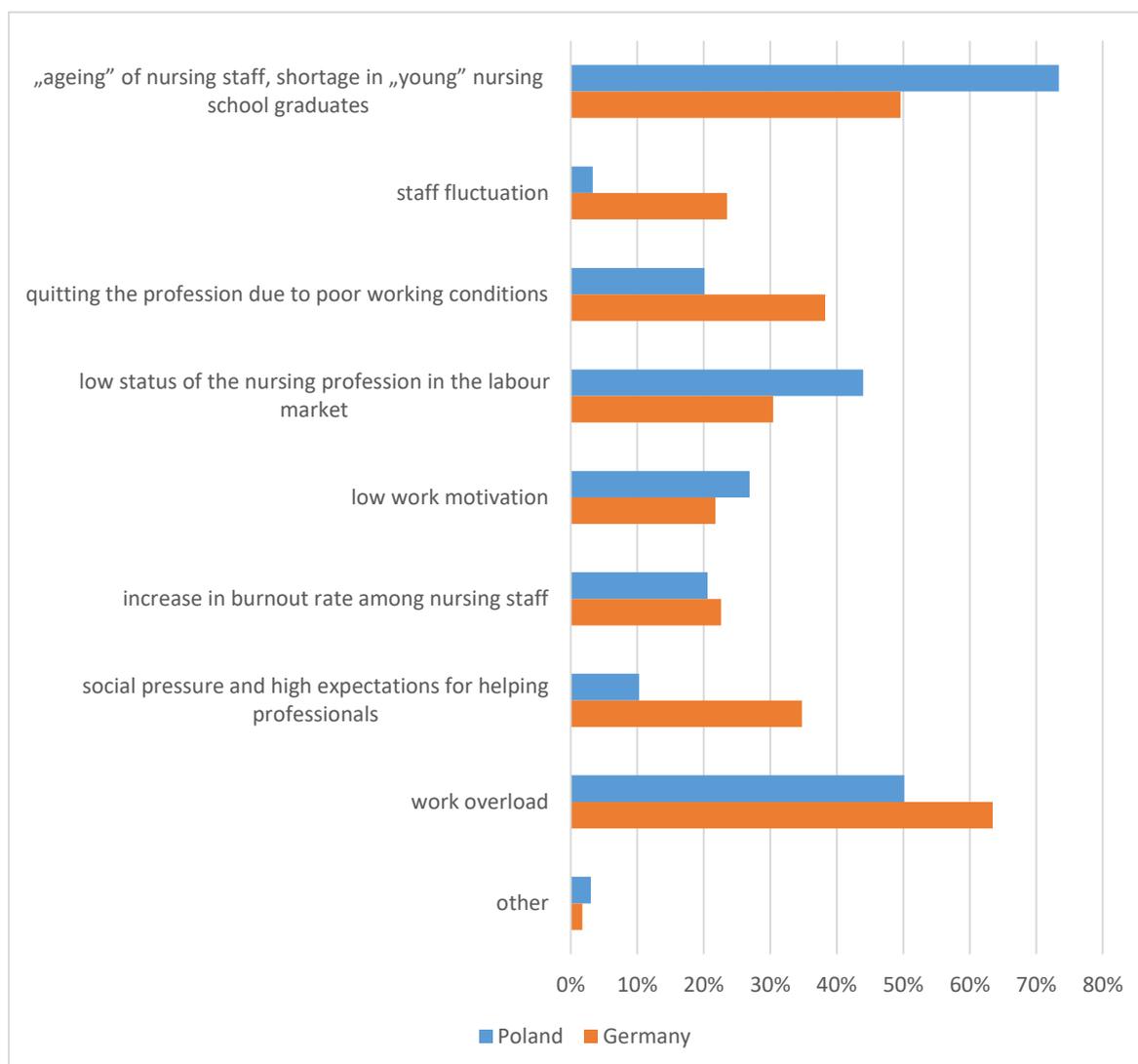


Figure 3. Frequency of answers to the question: *What do you think are the greatest risks in the nursing profession in the coming years?*

Source: own work.

The respondents from both countries perceive the main risks in the nursing profession in a slightly different way (figure 3). According to the Polish respondents, the most serious risk in the coming years is the “ageing” of nursing staff and the lack of “young” nursing school graduates - as many as 73% of respondents indicated this factor. Another factor is work overload (50%), and the third one - low social status of the nursing profession in Poland (44%). In the German group, the most frequently mentioned risk was work overload (63%), ageing of the nursing staff and the lack of young nursing school graduates (50%). The third place took quitting the profession due to poor working conditions (38%). One should also pay attention to significant differences in two factors often indicated by the German respondents and relatively rarely reported by the Polish ones. It is about social pressure and high requirements connected with this profession (35% of indications among the German respondents and only 10% among the Polish ones) and staff fluctuation (23% in the German group and only 3% in the Polish one). Despite the differences in the responses in both groups, two factors seem to be crucial for the

future of this profession - the ageing of the nursing staff due to the lack of young nursing school graduates and work overload.

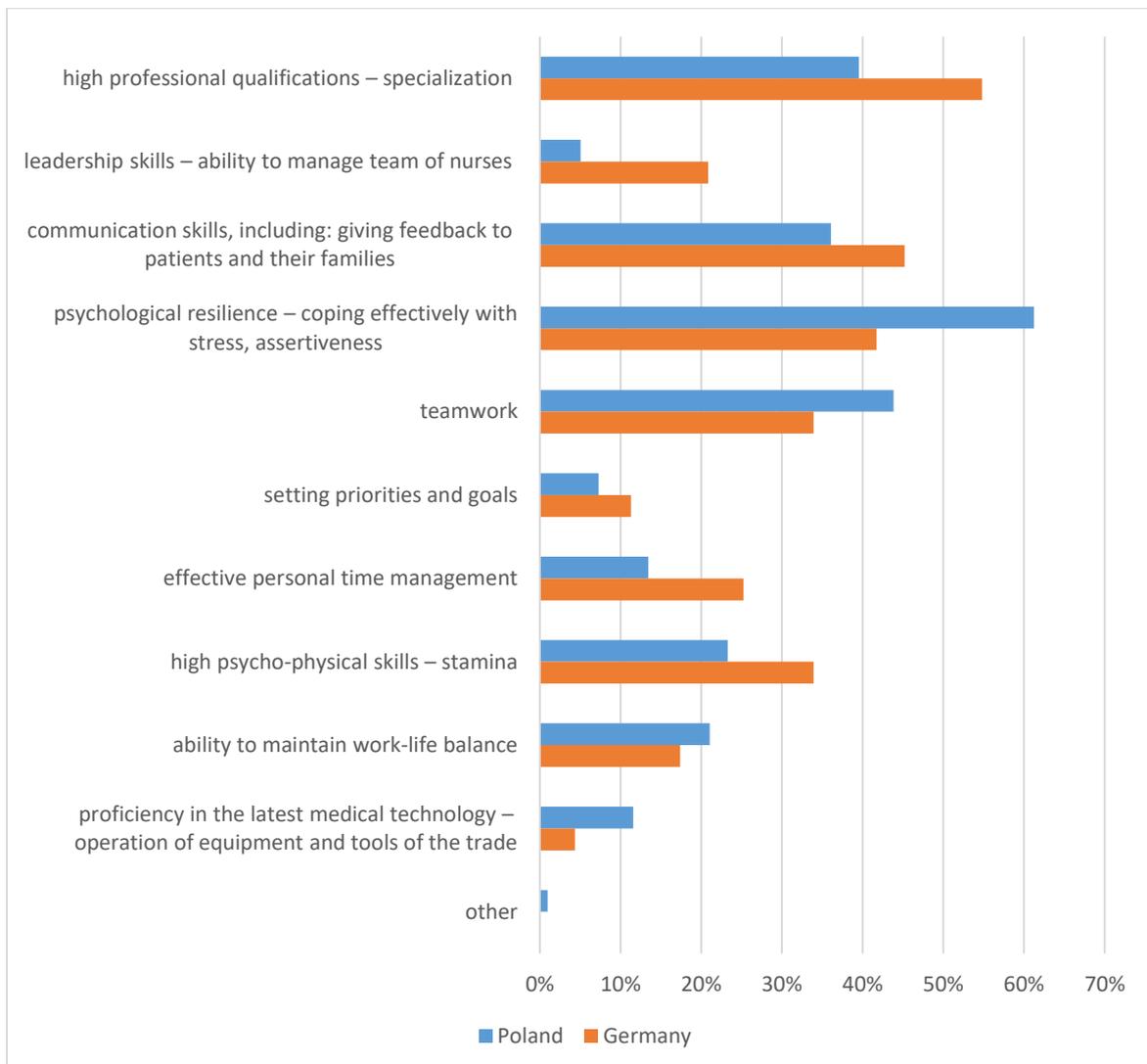


Figure 4. Frequency of answers to the question: *What do you think are the most desirable skills in the nursing profession?*

Source: own work.

Differences were also observed in the answers to the question about the most desirable skills in the profession (figure 4). The Polish respondents indicated most often psychological resilience (61%), teamwork skills (44%) and high professional qualifications (40%). The German ones indicated most often high professional qualifications (55%), communication skills (45%) and psychological resilience (44%). The biggest differences in the perception of the importance of a given type of competence were observed in the leadership skills – 21% of indications in the German group compared to only 5% in the Polish one.

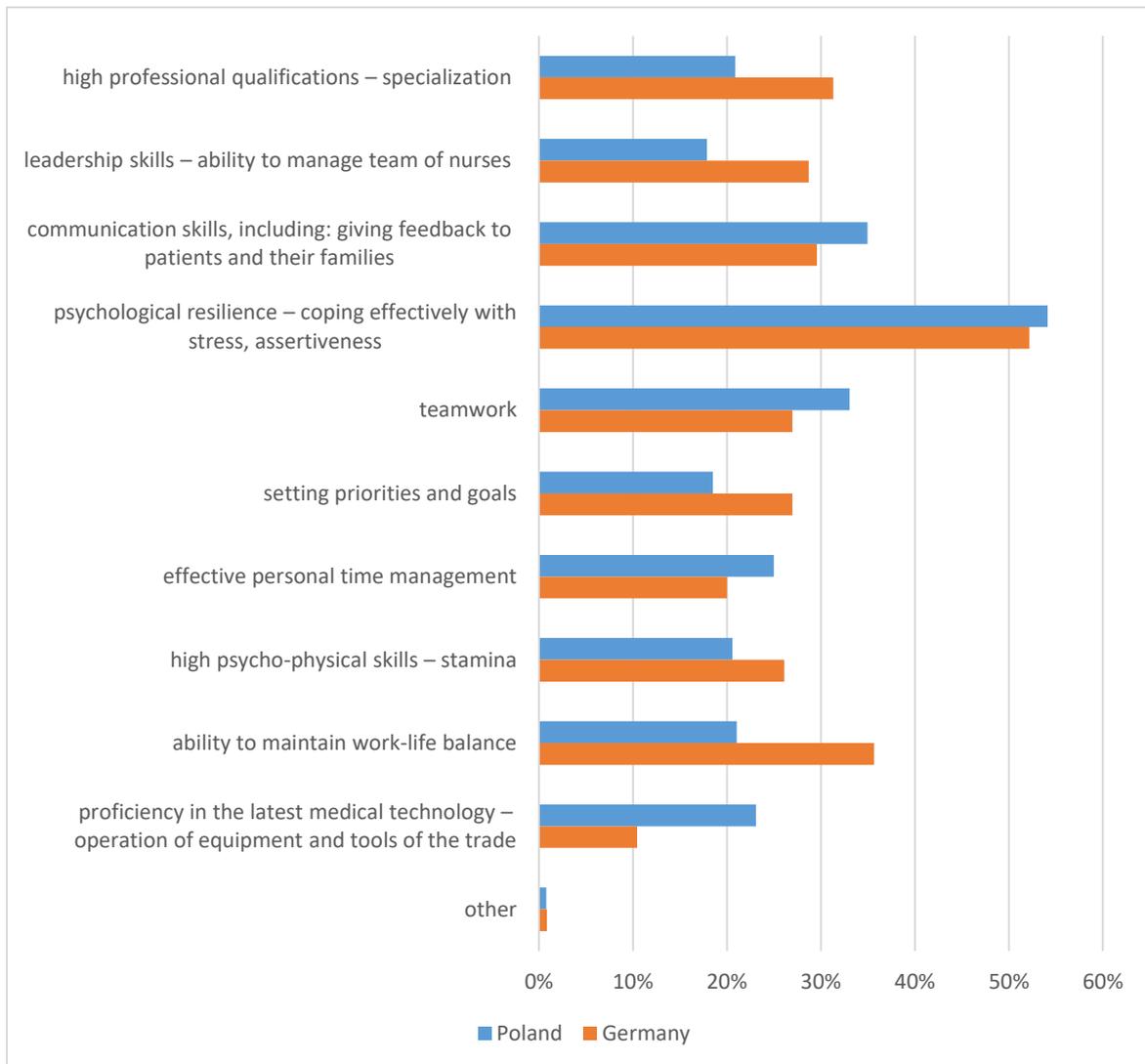


Figure 5. Frequency of answers to the question: *What do you think are the lacking skills in nursing profession training?*

Source: own work.

In the question about lacking skills in nursing profession training (figure 6) one used the same cafeteria as for the question about the most desirable skills in this profession. It was done on purpose in order to better describe the existing situation in the area of needs in formal and non-formal training. It is worth emphasising that when determining the lacking skills, one has not observed such significant differences in both groups as in the previous questions. Respondents from both countries agreed that the most lacking skills are psychological resilience, assertiveness and effective coping with stress - this option was indicated by 54% of respondents from the Polish group and by 52% from the German one. This answer was chosen most frequently in both groups, especially when compared to other possible options. The next two skills indicated by the Polish respondents were communication (35%) and teamwork (33%). In the German group, on the other hand, two other skills were believed to need action in the educational area – work-life balance and high professional qualifications (36% and 31% respectively).

Next, one analysed and compared the consistency of answers in both groups to the questions about the most desirable and lacking skills. In order to do that, one created two rankings, showing the most desirable and the most lacking skills, by putting them in the order from 1 to 10, according to the frequency of respondents' indications. **This means that in the first case, number 1 was assigned to the skill that was most often indicated as the most desirable, whereas in the second one – the skill which nursing profession training lacked the most.** The dependence between the evaluation of the importance of a skill in the nursing profession and the evaluation of its lack has been presented in figures 6 and 7 (respectively for Poland and Germany). Black colour indicates skills which were evaluated in both rankings in a similar way, whereas red – skills for which the difference in the rankings was at least 3 positions.

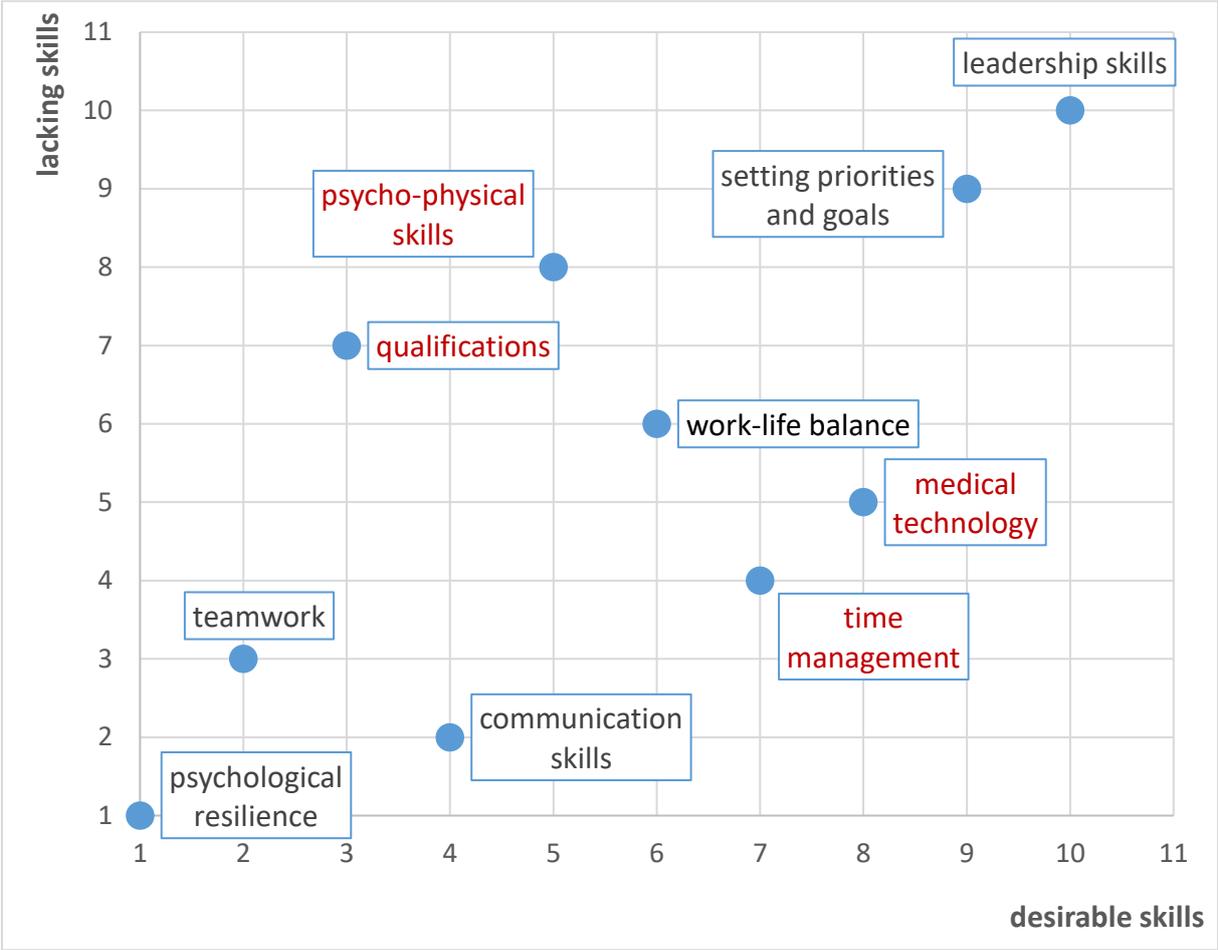


Figure 6. The dependence between the evaluation of the importance of skills and the evaluation of their lack in Poland.  
Source: own work.

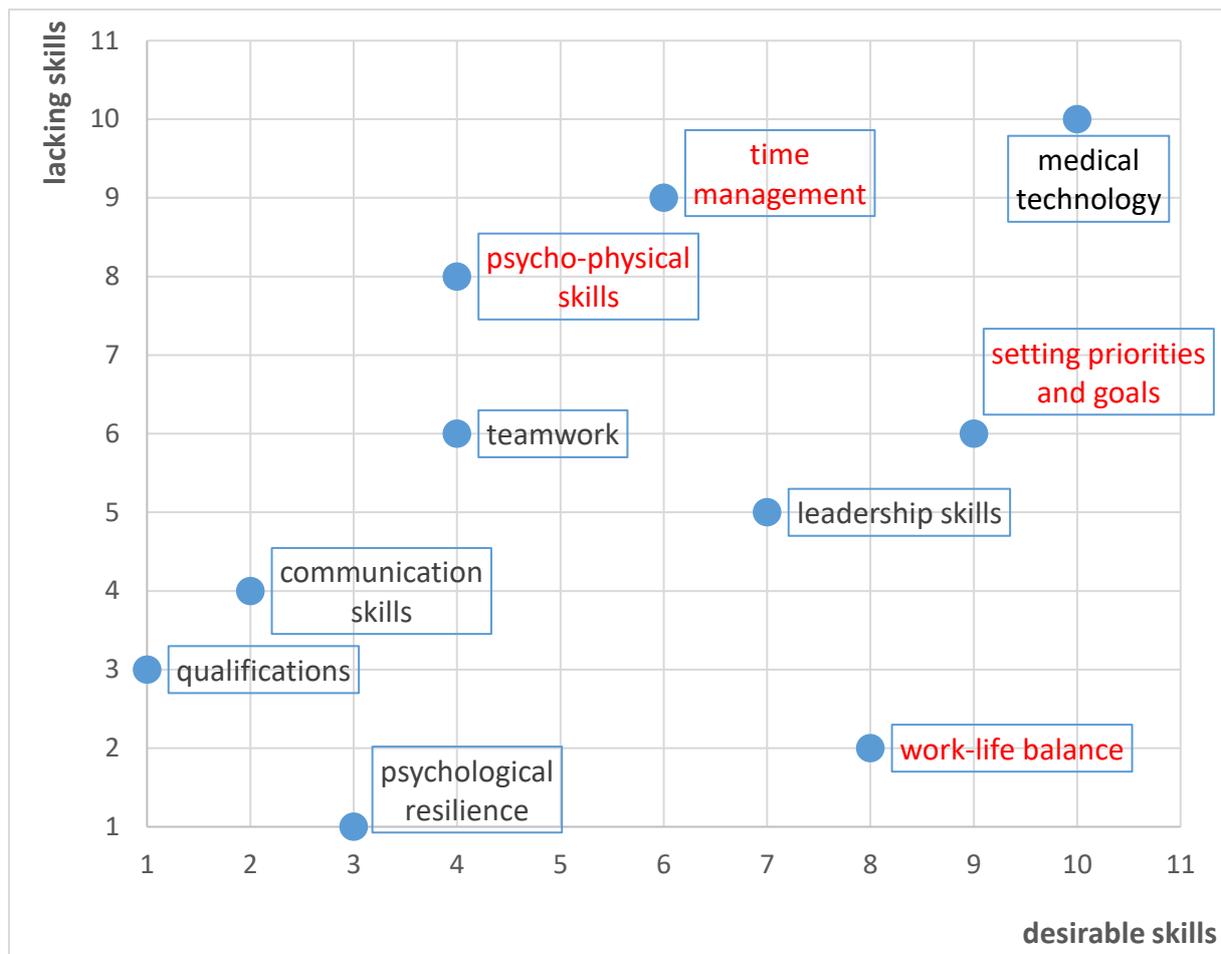


Figure 7. The dependence between the evaluation of the importance of skills and the evaluation of their lack in Germany.

Source: own work.

In both countries there is a positive dependence between the desirable and lacking skills. This means that a skill, which was indicated as desirable, was also believed to be lacking in the nursing profession. To determine the strength of the dependence between the answers to both questions, a measure of dependence between two variables, i.e. the Spearman's rank correlation coefficient, was calculated for both countries – 0,78 for Poland and 0,59 for Germany. Pearson's correlation coefficient was also calculated for the frequency of indications of individual skills in both groups, and was 0,85 for Poland and 0,66 for Germany. Such high values of both coefficients indicate an unfavourable situation observed especially by the Polish respondents. The high positive value of the coefficients determining the dependence between variables means that for the skills that are the most desirable, the largest lack occurs simultaneously. In the case of Poland, this applies mainly to psychological resilience, teamwork skills and communication skills. In Germany, the top three in both evaluations included high professional skills (specialization), communication skills and psychological resilience. The skills which were the least desirable and whose lack was not significantly noticeable in Poland were leadership skills (the ability to manage the work of a nursing team), whereas in Germany – proficiency in the latest medical technologies (operation of medical tools and equipment). The biggest difference in the rankings of the most desirable and lacking skills was noted in Poland for high professional skills (4 positions) – important but not lacking, whereas in Germany –

work-life balance (6 positions) – rather less important but with a significant deficiency. In both countries, among the top five most important skills appeared psycho-physical ones (stamina and physical fitness), for which there were no major shortcomings either in Poland or in Germany.

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