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SOCIAL COMPETENCES OF MEDICAL PERSONNEL – RESULTS OF AN EMPIRICAL STUDY

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Purpose: The main purpose of this article was to assess the level of social competence of medical personnel working in Polish healthcare entities as well as to determine relationship between social competence and selected socio-demographic and work-related factors.
Design/methodology/approach: A questionnaire for medical personnel of Polish healthcare entities was used to collect the data. 747 respondents took part in the research. A five-point Likert scale was adopted to assess individual social competences. In order to examine the properties of the measurement scale and the items that make it up, a reliability analysis was performed. Data were then analyzed using descriptive statistics, Kruskal-Wallis, and Mann-Whitney U tests.
Findings: The study shows that medical personnel rate the social competencies they possess very highly. The male and female personnel differ in their level of: ability to work in a team, commitment and responsibility, ability to communicate and build relationships, own time management effectiveness and self-education. The analyses show that the type of healthcare profession differentiates the level of social competencies.
Practical implications: Exploration of the social competence of physicians and medical personnel is necessary to determine the needs for specialized training to acquire social competence, and to develop programs for the acquisition of the social competence of managing complex professional and social situations.
Social implications: The level of competence of healthcare workers concerns all citizens. The Polish education system is mainly oriented towards professional skills training. Given the importance of social competences in the diagnosis process, treatment, and occupational functioning of health service workers, it seems appropriate to improve and develop them.
Originality/value: This article is based on a thorough analysis of the literature on the topic and the author' own research. In practice, this study highlights problematic areas of management in healthcare entities. It is addressed to researchers dealing with the subject and managers seeking solutions in building a team of competent medical staff.
Keywords: social competence, medical personnel, healthcare entities.
Category of the paper: Research paper.

1. Introduction

The unpredictable and dynamically changing organisational environment, the increasing importance of individual human potential in creating competitive advantage are just some of the elements that make the issue of competencies still an important and broad scientific research area in the discipline of management sciences (Berek, 2016). The need arises to identify areas in which healthcare entities should improve their organisational efficiency and enable the development of employed medical staff. The healthcare system is struggling with a number of management issues. To date, a long-term, coherent and evolutionary vision for its redesign has not emerged (Czauderna et al., 2019; Leggat et al., 2020; Mitosis et al., 2021).

Among the most critical problems in the health, the sector is the shortage of personnel, resulting from generational changes, an ineffective system of pre- and postgraduate education, changes in work styles, migration, obstruction of access to certain specialties by interest groups, and an insufficiently effective system of supporting deficit specialties (residencies) (Haberla, 2022). A shortage of doctors and nurses has been evident in Poland for years (Kludacz, 2015; Pomaranik, 2022). According to Eurostat data, Poland has the lowest number of practicing physicians per 1000 residents in the EU (2.4), and the number of nurses (5.1 per 1000 residents) is also among the lowest in the EU. However, official national estimates are higher - between 3.4 and 4.4 doctors per 1000 residents (Kowalska-Bobko et al., 2021).

The level of competence of healthcare workers concerns all citizens. In Poland, there is a perceived mismatch between the training of medical personnel and actual regional needs (Ministry of Funds and Regional Policy, 2022). There is an inadequate model of competence development in medical professions in public healthcare entities (Czerska et al., 2019). The Polish education system is mainly oriented towards professional skills training. Social competencies are acquired by medical graduates only when they begin their professional work (Haberla, 2022).

Realising the importance of the health workforce is an undeniable task for healthcare providers. The human factor decisively influences the overall functioning of the healthcare system. The medical industry is constantly transforming. The development of medicine boils down to the development of the competencies of those working in the healthcare system. It is thanks to the appropriate competence of medical staff that healthcare entities have the opportunity to conclude a more favourably priced contract with the National Health Fund for the provision of health and medical services. An entity employing specialist medical staff can seek to conclude a contract for the provision of highly specialised services at a higher reference level (which means a higher valuation per point by the National Health Fund). One of the conditions for entering the tender is precisely that the medical entity employs an adequate number of qualified specialist medical staff to provide the contracted health and medical services (Piszczygłowa, 2017).

The analysis of existing knowledge and research has made it possible to identify an important research gap - the paucity of analyses in the literature on the development of medical staff competencies in the public health sector.

There were two objectives in this article. The first was to examine the opinions of medical personnel of Polish healthcare entities on the social competences they possess. The other was to determine the relationship between the characteristics of the respondents (gender and profession) and the declared competences.

2. Competence classifications

The concept of competence emerged in 1973. The author credited with introducing the term is David Clarence McClelland (Mikuła, Pietruszka-Ortyl, 2007; Orlińska-Gondor, 2006). "Competence" is an ambiguous concept (Mikuła, 2001) and interpreted differently. Neither in management theory nor in its practice has a generally accepted definition been adopted so far. They can be understood in the context of having the authority to make decisions or as a set of knowledge, skills and experience (Serafin, 2016). An overview of the definitions of competence in relation to healthcare entities is presented in Table 1.

Table 1.
Selected definitions of the concept of competence

Author	Definition of competence
Boyatzis R.E. (1982)	A set of characteristics of a person, which consists of elements characteristic of that person, such as motivation, personality traits, skills, self-assessment related to group functioning, and the knowledge that that person has acquired and uses.
Butkiewicz M. (1995)	Competence consists of skills, knowledge and responsibility, as well as the power and authority to perform work in a specific field. A competent employee is qualified to give an opinion and has the authority to act and decide.
Filipowicz G. (2004)	Competence can be defined as the individual disposition of each employee in terms of the skills, attitudes and knowledge he or she possesses, which enables that employee to perform effectively the tasks assigned by the organisation.
Whiddett S., Hollyforde S. (2003)	The concept of competence can be understood as: • the ability to carry out the duties of the employment relationship effectively, • the ability to perform the tasks assigned by the supervisor in a manner consistent with the supervisor's intention, • the ability to replicate familiar patterns of behaviour. Thus, competences are seen as the skills and abilities that make it possible to work in a specific position in an organisation. They can also be defined as the set of qualities necessary to perform the tasks of a job correctly. Competence can also be defined as an individual set of characteristics of a given employee, consisting of skills, motivation and self-esteem.
Janowska Z. (2001)	Competence is the knowledge, experience, skills and commitment of employees.
Klemp G.O. (1980)	The set of qualities of a person that enable him or her to perform job-related tasks effectively and outstandingly.

Cont. table 1.

Kwiatkowski S.M., Sepkowska Z. (2000)	The ability to perform the activities of an occupation well or effectively, according to the standards required for the jobs, supported by specific ranges of skills, knowledge and psycho-physical characteristics that the worker should possess.
Rostkowski T. (2004)	These are all employee characteristics that foster the achievement of results in line with managers' expectations. Their use and development add value to the organisation.
Sajkiewicz A. (2002)	Competencies are a set of performance styles, aptitudes, professed beliefs, interests and knowledge, as well as qualities that are used in the course of the employment relationship, and their development is conducive to achieving the results desired by the organisation.
Skrzypczak J. (1998)	The ability to do something, depending both on the knowledge of the messages, skills and abilities that go into it and on the degree of belief in the need to use that ability.

Source: Own study based on the sources included in the table.

The core of competence is knowledge and skills. Knowledge means knowledge of theories, facts, procedures related to a given position or profession. Skills are proficiency (in this case, proficiency in carrying out medical procedures). Both of these components are supported by qualifications, abilities and experience while additional components that do not form the core of the concept of competence definition are: social competence and emotional intelligence (which facilitate the execution of procedures under conditions of communication with others), psychophysical condition (which influences the preparation for work in a given position), work style (i.e. the way in which the assigned tasks and rules are carried out), values and beliefs (which influence behaviour in the workplace) (Prusaczyk et al., 2020). The author's definition of professional competence within the healthcare system refers to a set of the following characteristics of healthcare personnel: knowledge in a specific field, the ability to use this knowledge in the practice of treatment, and the willingness to use this knowledge in a manner consistent with the interests of the healthcare entity.

The literature on the subject indicates a division of competences into two key types, namely soft competences and hard competences. Hard competences refer to specific, measurable qualities necessary to perform a specific job. These qualities, due to their measurability, should be supported by documentation such as certificates, attestations or diplomas. Therefore, they can be considered as basic competences, without which it is not possible to participate in the recruitment for a specific position. Soft competences, on the other hand, are all personal, social, interpersonal and communication skills. These competences mainly revolve around the way a person behaves depending on the situation they are in. It can be said that they are the result of the summation of emotional, communication and social skills (Szmit, 2018).

A number of classifications of competences and their division into specific types, groups and categories have emerged.

Types of competence according to Michael Armstrong (Armstrong, 2007):

- general - required of persons in a specific profession or of employees in similar positions,
- specific - distinguish a particular job or defined organisational role from others,

- threshold - necessary to meet the minimum requirements in a given position,
- differentiators - characterise the behavioural traits observable in high performing employees and their absence in those who perform less well.

Types of competence according to Tomasz Rostkowski (Szczęsna, Rostkowski, 2004):

- core competencies - are common to all staff within the company. The role of core competencies is to create a uniform and consistent organisational culture within the company for all employees. They can be used in the work value survey as a basis for comparison between company employees;
- function-specific competencies - found in people working in specific organisational units of the company (e.g. accounting, sales, marketing). On their basis, comparisons can be made between the employees of a particular company department;
- role-specific competencies - otherwise known as hierarchical competencies, are required of employees depending on the role they play in the organisation (e.g. leader, strategist). They enable comparisons to be made between employees who perform specific functions at equal levels in the company's organisational hierarchy.

Competency groups according to Tony Cockerill, John Hunt and Harry Schroder (Cockerill et al., 1995):

- threshold competencies - refer to a group of managerial behaviours that indirectly influence the good results obtained by the manager,
- high performance managerial competencies - refer to a set of behaviours correlated in research with high managerial performance, e.g. concept generation competency;

Competence groups according to Aleksy Pocztowski (Pocztowski, 2003):

- basic - are critical to the proper performance of the job. These usually include knowledge and skills,
- distinctive - help to distinguish an effective employee from an average one. This group of competences includes motives, attitudes and values.

Competence groups according to Małgorzata Sidor-Rządkowska (Sidor-Rządkowska, 2008):

- company-specific - (corporate, organisational) - refer to the employees of an organisation. All people working for a company should have this type of competence regardless of their position,
- professional (vocational) - are closely related to the nature of the work performed. Depending on the type of work, appropriate competences are required (e.g. different from an accountant and different from a computer network administrator),
- social - refer to interpersonal contacts. In relation to a manager, this mainly means relations with subordinates, in the case of a sales representative - relations with customers, etc. To the competences of this group we can include: team cooperation, motivating employees or efficient customer service.

Categories of competence according to Justyna Kubicka-Daab (Kubicka-Daab, 2002):

- basic - refer to all persons in a specific professional group (e.g. all teachers) or functional group (e.g. all commercial directors). Core competences can also be distinguished in relation to selected organisational divisions of the company, e.g. those related to marketing,
- specific - distinguish some jobs from others, or organisational roles from each other, e.g. numerical skills needed for accounting positions.

The division of competences according to Grzegorz Filipowicz includes the area of basic competences (i.e. cognitive, social and personal competences) and executive competences (i.e. business, corporate and managerial competences) (Filipowicz, 2004):

- cognitive (problem-solving, broad-mindedness, flexibility of thinking, readiness to learn, creativity),
- business (business orientation, industry knowledge, diagnosing customer needs, sales techniques),
- social (negotiating, international familiarity, relations with superiors, relations with colleagues, written communication, communication skills, making presentations, influencing, teamwork, personal culture),
- corporate (identification with the company, customer focus, openness to change, ethics and values, foreign languages, organisational agility, professional knowledge),
- personal (action orientation, taking initiative, coping with stress, perseverance, commitment, efficiency, organising own work, conscientiousness, decision-making, setting priorities, striving for results, self-confidence),
- managerial (team building, caring for subordinates, delegating, motivating, managerial courage, leadership, organising, planning, process management, project management, strategic thinking, change management).

The most popular division found in the literature is the one distinguishing four types of competences: professional, personal, managerial and social (Lula et al., 2018). Professional competences, otherwise known as specialist competences, are closely related to the industry or the specifics of the profession. Personal competences are a set of attributes of an employee, among which we can mention their commitment or creativity. Managerial competences will undoubtedly include delegating, organising the work of a team, etc. (Różański, 2018). The last group in the described division are social competences, which significantly affect the effectiveness of an individual's functioning (Bandach, 2013). Social competences can include: communicativeness, exerting influence, conflict resolution, building relationships, sharing knowledge and experience, and identifying with the organisation (Szmit, 2018). Thanks to social competences, it is possible to create social interactions correctly. They also influence the facilitation of cooperation, through the creation of social networks or the building of trust. They are regarded as a requirement, necessary in the process of creating

social relations, through which they form the basis for the formation of social capital (Miłaszewicz, 2015). Social competences are also the basis for formulating an effective strategy for dealing with conflicts occurring not only in private life, but also in professional life (Schuller, Demetriou, 2018).

3. Desirable social competences of medical staff of healthcare providers

Specific professions require specific social competences, so no job can be performed by people who do not have the right predisposition for it and are not fully committed to it (Czerw, Borkowska, 2012; Krzysztoń, Walicka-Cupryś, 2016). Social competences are an integral part of everyone's work, but especially of people who are in constant contact with other people, such as doctors, nurses, midwives or physiotherapists, for whom creating interpersonal relations with patients is the basis of proper medical care (Matczak, 2007).

One of the professional groups in a healthcare provider whose social competences are of vital importance are nurses. The daily, constant contact with the patient forces nurses to develop not only their professional competences but also their soft competences, mainly social competences. The essence and importance of social competences in the nursing profession influences the adaptation of care to the individual needs of the patient, depending on the patient's situation (Chrzan-Rodak, Ślusarska, 2019a).

Social competences are also an essential part of doctors' work. These skills facilitate building a relationship with the patient, conducting a culturally sensitive medical history, foster the performance of diagnostic and therapeutic tasks and allow taking care of one's own psychological well-being (Zarek, Wyszadko, 2018).

Doctors and nurses should be able to cooperate among themselves and with other healthcare professionals, establish and maintain respect between staff and patients, show tolerance towards different views, cultures and peoples, act with empathy and continuously improve their knowledge. In addition, doctors should be more involved in scientific activities than other professional groups of healthcare providers. Thus, the following desirable competencies of medical personnel in healthcare entities can be distinguished: patient-centredness, inspiring trust, teamwork, ability to remove fears and inspire hope, leadership, communication, planning and organisation, stimulating the development of others, problem-solving skills (Epstein, Hundert, 2002; Sokołowska, 1986).

It should be noted that the formation of social competences in both the professional group of doctors and nurses starts as early as the university stage.

The Minister of Education and Science, in consultation with the Minister of Health, has signed a decree amending the decree on the standards of training to prepare for the profession of doctor, dentist, pharmacist, nurse, midwife, laboratory diagnostician,

physiotherapist and paramedic in the part concerning the profession of doctor and dentist. The revised standards will be effective from the 2024/2025 academic year. The change in regulations is due to new challenges facing modern medical higher education, to ensure the highest possible quality of education (table 2).

Table 2.
Social competences listed in the Regulation of the Minister of Education and Science of 29 September 2023 amending the Regulation on standards of education preparing for the professions of doctor, dentist, pharmacist, nurse, midwife, laboratory diagnostician, physiotherapist and paramedic

Standards of training to prepare for the profession	
Doctor	Nurse
General learning outcomes In terms of social competence, the graduate is ready to	
1) establish and maintain deep and respectful contact with the patient and show understanding for worldview and cultural differences; 2) be guided by the welfare of the patient; 3) respect medical confidentiality and patient rights; 4) take action based on ethical principles, with an awareness of the social determinants and limitations of the disease; 5) perceive and recognise their own limitations, make self-assessments of deficits and learning needs; 6) promote healthy behaviour; 7) use objective sources of information; 8) formulate conclusions from their own measurements or observations; 9) implement the principles of professional camaraderie and teamwork, including with representatives of other health professions, and in a multicultural and multinational environment; 10) form opinions on various aspects of professional activity; 11) accept the responsibility associated with decisions taken during professional activities, including in terms of the safety of themselves and others.	1) be guided by the welfare of the patient, respect the dignity and autonomy of those entrusted to their care, show understanding of worldview and cultural differences, and show empathy in their relationship with the patient and his family; 2) Compliance with patient rights; 3) Independently and diligently perform the profession in accordance with ethical principles, including adherence to moral values and duties in patient care; 4) bear responsibility for professional activities performed; 5) to consult experts in case of difficulties in solving the problem on their own; 6) Anticipate and take into account factors that influence their own and the patient's reactions; 7) Recognizing and recognizing their own limitations in terms of knowledge, skills and social competence, and making self-assessments of deficits and educational needs.

Source: Regulation of the Minister of Education and Science of 29 September 2023 amending the Regulation on standards of education preparing for the professions of doctor, dentist, pharmacist, nurse, midwife, laboratory diagnostician, physiotherapist and paramedic

The curricular implementation of social competences by universities and the emphasis on their implementation is a great success and such aspirations should be adopted as obligatory, not only because of the changes introduced in connection with the National Qualifications Framework. There are several reasons for this:

- Polish students judge themselves to be socially incompetent in many aspects, such as dealing with difficult and unexpected situations, being the object of attention and evaluation, being open to society, being able to help, etc. (Jagiełło-Rusiłowski, 2011).

- For years, experts from the European Union have been stressing the crucial importance of social competences, which are indispensable for a citizen of modern Europe. The DeSeCo Project (the acronym of Definition and Selection of Competencies: Theoretical and Conceptual Foundations) assumes their indispensable role for personal fulfilment and development, being an active citizen, as well as for social integration and employment. The Lisbon Declaration recognised social competences as key for citizens of the Member States obliged to develop them in the education and social support system (Seweryn, Spodaryk, 2014).
- Compared to other European countries, Poland performs very badly in the rankings in terms of so-called soft capital. Our society has intellectual capital, but lacks creativity, social trust, ethics and civic activity (Czapiński, Panek, 2009).

Developments in science and technology are making it possible to understand illnesses better, to diagnose and treat them more accurately, but it is still communication skills that are among the basic abilities that healthcare professionals should acquire and develop. Good interpersonal communication results not only in patients' satisfaction with their interactions with medical staff, but, above all, has a positive impact on the process of treatment itself and supports the patient in adopting the right attitude towards the disease. In turn, the basis for a good staff-patient relationship is good communication within the therapeutic team, as one of the factors counteracting professional burnout.

4. Methods

A questionnaire for healthcare professionals was used to collect data. A total of 747 respondents participated in the research. The survey was conducted in 2022. Participation in the study was voluntary, and confidentiality and anonymity were ensured. A five-point Likert scale was adopted to assess social competences. A scale was used from 1 (strongly disagree) to 5 (strongly agree). The collected data were analysed with the SPSS 17 software. In order to examine the properties of the measurement scale and the items that make it up, a reliability analysis was performed. The total (combined) result of social competence did not have a normal distribution, as determined by the Shapiro– Wilk test. Data were then analyzed using descriptive statistics, Kruskal-Wallis tests and Mann-Whitney U tests. In all tests, p values less than 0,05 were interpreted as statistically significant.

5. Results

5.1. Characteristics of respondents

The following socio-demographic characteristics were assessed in the study to find out the description of the respondents and whether they were well suited for the study: gender, age, healthcare profession, marital status and working experience. The results are as shown in Table 3.

Table 3.
Socio-demographic characteristics of the study participants (N = 747)

Construct		Frequency (N)	Percent (%)
Gender	Male	523	70.0
	Female	224	30.0
	Total	747	100.0
Age category	Less than 30 years	62	8.3
	Between 30-40 years	139	18.6
	Between 41-50 years	212	28.4
	Between 51-60 years	291	39.0
	Above 60 years	43	5.8
	Total	747	100.0
Years of experience	Between 1-5 years	84	11.2
	Between 6-10 years	49	6.6
	Between 11-15 years	94	12.6
	Between 16-25 years	126	16.9
	Above 25 years	394	52.7
	Total	747	100.0
Marital status	Never married	84	11.2
	Married	561	75.1
	Widowed	39	5.2
	Divorced/separated	63	8.4
	Total	747	100.0
Healthcare profession	Doctor	234	31.3
	Doctor dentist	63	8.4
	Nurse	323	43.2
	Midwife	47	6.3
	Other	80	10.7
	Total	747	100.0

Source: Own elaboration.

The study findings indicate that over half (70.0%) of the respondents in the study were female; and 30.0% were male. The findings therefore show that there was not relative gender balance among the staff of Polish healthcare entities as the number of female and male respondents was not close. Almost half (39.0%) of the respondents were aged between 51 and 60 years. The mean age was 47 years. It can therefore be concluded that majority of the staff in Polish healthcare entities were not in their youth.

The study sought to establish the period under which the respondents have worked with the healthcare entities. This was meant to establish whether the respondents can articulate the issues in this study relating to working in Polish healthcare entities. The study findings indicate that

majority (52.7%) of the respondents in the study had a working experience of above 25 years, 16.9% had a working experience of between 16 to 25 years, 12.6% had a working experience of between 11 to 15 years, 11.2% had a working experience of between 1 to 5 years, 6.6% had a working experience of between 6 to 10 years. The fact that respondents had worked between 1 to 5 years and above illustrated that they were able to articulate the issues in this study.

Respondents indicated their marital status. Married people predominated (561 respondents, i.e. 75.1% of all respondents). Single individuals accounted for 11.2% of respondents, divorcees for 8.4% of the total, and widows and widowers for 5.2% of all respondents.

Respondents with a medical function accounted for 39.7% of the total number of respondents; these were doctors (234 people) and dentists (63 people). The remaining group consisted of non-physician respondents (60.3%). The survey involved 323 nurses, 47 midwives and 80 representatives of other medical professions (the largest group were paramedics and laboratory diagnosticians).

5.2. Analysis of medical personnel competences

In order to investigate the properties of the measurement scale and the items constituting it in the survey questionnaire for personnel of healthcare entities, a reliability analysis was conducted. The exact values obtained from this analysis are shown in Table 4 and Figure 1.

Table 4.
Analysis of the reliability of the dimensions included in the survey questionnaire addressed to personnel of healthcare entities and descriptive statistics of survey variables (N = 747)

Construct	Variable	Mean	Standard Deviation
Social competences $\alpha = 0{,}759$	SC1. I can work in a team	4.60	0.909
	SC2. I manage my time effectively	4.37	0.957
	SC3. Self-education is my strength	4.27	0.953
	SC4. I have communication and social relationship-building skills	4.49	0.884
	SC5. I am an assertive person and able to work under stress	4.38	0.995
	SC6. I demonstrate commitment and responsibility	4.79	0.569

Source: Own elaboration.

Cronbach's alpha values greater than 0,70 indicate a high level of reliability of the scale (Azhar et al., 2022). The significance of the individual variables assumes a very low level (less than 0.001). This means that the null hypothesis of the Shapiro-Wilk test, which states that, the distribution of the variables is normal - cannot be accepted. Thus, the distributions of the variables described above are not normal.

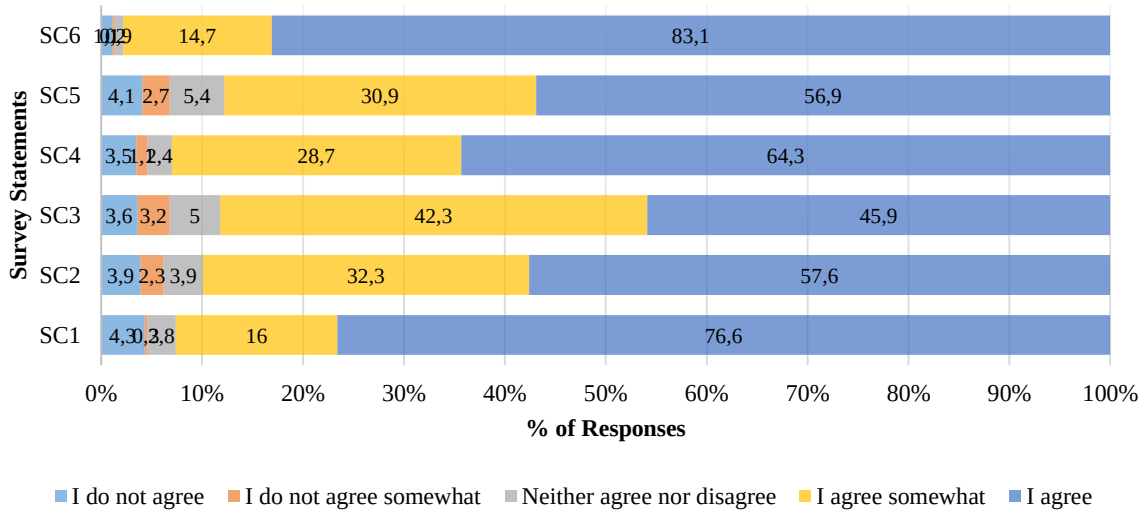

Figure 1. Distribution of survey responses.

Source: Own elaboration.

The study shows that medical personnel rate the social competencies they possess very highly. The following deserve special mention: ability to work in a team (SC1: M = 4.60; SD = 0.909), commitment and responsibility (SC6: M = 4.79; SD = 0.569), ability to communicate and build relationships (SC4: M = 4.49; SD = 0.884). Respondents rated their own time management effectiveness (SC2: M = 4.37; SD = 0.957), assertiveness and ability to work under stress (SC5: M = 4.38; SD = 0.995) and self-education (SC3: M = 4.27; SD = 0.953) slightly lower.

5.3. Factors differentiating the social competences of medical personnel

It was then examined whether ratings of individual social competences differed according to selected demographic and social characteristics. Effects of the demographic variables viz., gender and healthcare profession, were tested using nonparametric tests. Gender was analyzed with the help of Mann-Whitney U-test (Table 5) whereas Kruskal Wallis H-tests was used to analyze of other demographic variable — healthcare profession (Tables 6 and 7 respectively) (Wądołowska, 2013; Mondal et al., 2022).

Initially, the Mann-Whitney U-test (Table 5) shows that of the six types of social competences, the difference between the mean ranks of five responses, i.e., ability to work in a team (SC1: Z = -5.754; $p < 0.001$), own time management effectiveness (SC2: Z = -3.712; $p = 0.001$), self-education (SC3: Z = -3.239; $p = 0.001$), ability to communicate and build relationships (SC4: Z = -2.837; $p = 0.005$), commitment and responsibility (SC6: Z = -4.408; $p<0.001$),were found to be significant between male and female respondents under the study.

Table 5.
Differences the social competences of medical personnel by gender

Variable	Gender				*Z*	*p*	η^2
	Female (*n* = 523)		Male (*n* = 224)				
	Mean rank	*Me*	Mean rank	*Me*			
SC1. I can work in a team	395.98	5.00	322.67	5.00	-5.754	**<0.001**	0.08
SC2. I manage my time effectively	390.88	5.00	334.58	5.00	-3.712	**0.001**	0.06
SC3. Self-education is my strength	389.22	4.00	338.46	4.00	-3.239	**0.001**	0.04
SC4. I have communication and social relationship-building skills	386.36	5.00	345.14	5.00	-2.837	**0.005**	0.05
SC5. I am an assertive person and able to work under stress	378.68	5.00	363.08	5.00	-1.021	0.307	0.02
SC6. I demonstrate commitment and responsibility	388.80	5.00	339.45	5.00	-4.408	**<0.001**	0.04

Note. Me – median; Z – statistics of the Mann–Whitney u test, η2 – eta square, a measure of the strength of the association; p – an estimate of the probability that the observed difference between groups is random. The result of the analysis is statistically significant if the p-value is less than the assumed alpha threshold, which is 0.05.

Source: Own elaboration.

The value of η2 (eta square) indicates the percentage of the dependent variable variation explained by the independent variable. The higher its value, the greater the variation is (more substantial effect). It is assumed that: around $\eta2 < 0.06$, there is a weak effect, between $0.06 < \eta2 < 0.14$, there is a moderate effect and $\eta2 > 0.14$, there is a strong effect (Richardson, 2011).

Null hypothesis was rejected in these five cases and in the case of the SC5 variable null hypothesis were accepted. So the rejected hypothesis shows that the male and female personnel differ in their level of: ability to work in a team (moderate effects), commitment and responsibility (weak effect), ability to communicate and build relationships (weak effect), own time management effectiveness (moderate effects) and self-education (weak effect). Thus, the monitored group of women perceives the own social competences better than the monitored group of men.

Next, Kruskal-Wallis tests were performed to test whether healthcare profession differentiated the social competences (table 6).

Table 6.
Comparison of dimensions of the social competences according to healthcare profession

Variable	Healthcare profession	Mean rank	*Me*	*H(4)*	*p*	η^2
SC1. I can work in a team	doctor (*n* = 234)	350.82	5.00	33.717	**<0.001**	0.06
	doctor dentist (*n* = 63)	316.00	5.00			
	nurse (*n* = 323)	410.70	5.00			
	midwife (*n* = 47)	333.79	5.00			
	other (*n* = 80)	362.94	5.00			
SC2. I manage my time effectively	doctor (*n* = 234)	344.03	5.00	19.870	**0.001**	0.06
	doctor dentist (*n* = 63)	312.27	4.00			
	nurse (*n* = 323)	396.87	5.00			
	midwife (*n* = 47)	404.71	5.00			
	other (*n* = 80)	399.88	5.00			

Cont. table 6.

SC3. Self-education is my strength	doctor (*n* = 234)	359.81	4.00	21.216	**<0.001**	0.04
	doctor dentist (*n* = 63)	281.43	4.00			
	nurse (*n* = 323)	392.07	4.00			
	midwife (*n* = 47)	422.72	5.00			
	other (*n* = 80)	386.84	5.00			
SC4. I have communication and social relationship-building skills	doctor (*n* = 234)	346.23	5.00	10.183	**0.037**	0.03
	doctor dentist (*n* = 63)	384.10	5.00			
	nurse (*n* = 323)	394.33	5.00			
	midwife (*n* = 47)	381.49	5.00			
	other (*n* = 80)	360.80	5.00			
SC5. I am an assertive person and able to work under stress	doctor (*n* = 234)	371.71	5.00	4.413	0.353	0.02
	doctor dentist (*n* = 63)	338.79	5.00			
	nurse (*n* = 323)	383.93	5.00			
	midwife (*n* = 47)	344.87	4.00			
	other (*n* = 80)	385.43	5.00			
SC6. I demonstrate commitment and responsibility	doctor (*n* = 234)	372.46	5.00	12.740	**0.013**	0,04
	doctor dentist (*n* = 63)	328.32	5.00			
	nurse (*n* = 323)	390.06	5.00			
	midwife (*n* = 47)	367.01	5.00			
	other (*n* = 80)	353.74	5.00			

Note. The following were included as other types of healthcare profession: paramedics and laboratory diagnosticians.

Me - median, H - Kruskal-Wallis H test; η2 - eta square, a measure of the strength of the association; p - an estimate of the probability that the observed difference between groups is random. The result of the analysis is statistically significant if the *p-value* is less than the assumed alpha threshold, which is 0.05.

Source: Own elaboration.

The social competences that differ by type of healthcare profession (for which $p < 0.05$) are ability to work in a team (moderate effects), commitment and responsibility (weak effect), ability to communicate and build relationships (weak effect), own time management effectiveness (moderate effects) and self-education (weak effect).

The analyses show that the type of healthcare profession differentiates the level of social competencies. In order to investigate the exact differences, post hoc tests with Bonferroni correction were performed, the results of which are presented in Table 7.

Table 7.

The significance value of pairwise comparisons with Bonferroni correction for the social competences according to healthcare profession

Variable	Healthcare profession	1	2	3	4
SC1. I can work in a team	1. Doctor	-			
	2. Doctor dentist	1.000	-		
	3. Nurse	**0.001**	**0.001**	-	
	4. Midwife	1.000	1.000	**0.020**	-
	5. Other	1.000	0.807	0.165	1.000
SC2. I manage my time effectively	1. Doctor	-			
	2. Doctor dentist	1.000	-		
	3. Nurse	**0.012**	**0.012**	-	
	4. Midwife	0.457	0.116	1.000	-
	5. Other	0.232	0.062	1.000	1.000

Cont. table 7.

SC3. Self-education is my strength	1. Doctor	-			
	2. Doctor dentist	**0.049**	-		
	3. Nurse	0.555	**0.001**	-	
	4. Midwife	0449	**0.002**	1.000	-
	5. Other	1.000	**0.014**	1.000	1.000
SC4. I have communication and social relationship-building skills	1. Doctor	-			
	2. Doctor dentist	1.000	-		
	3. Nurse	**0.021**	1.000	-	
	4. Midwife	1.000	1.000	1.000	-
	5. Other	1.000	1.000	1.000	1.000
SC6. I demonstrate commitment and responsibility	1. Doctor	-			
	2. Doctor dentist	0.266	-		
	3. Nurse	1.000	**0.014**	-	
	4. Midwife	1.000	1.000	1.000	-
	5. Other	1.000	1.000	0.381	1.000

Note. The following were included as other types of healthcare profession: paramedics and laboratory diagnosticians.

Source: Own elaboration.

It has been shown that:

- The social competence dimension related to the ability to work in a team was at a higher level in nurses than in doctors, dentists and midwives. Other comparisons are not statistically significant.
- The social competence dimension related to the ability to manage time effectively was at a higher level in nurses than in doctors and dentists. Other comparisons are not statistically significant.
- The social competence dimension related to the ability to self-educate was at a higher level in nurses than in the other groups (except for midwives). Other comparisons are not statistically significant.
- The social competence dimension related to the ability to communicate and build social relationships was at a higher level in nurses than in doctors. Other comparisons are not statistically significant.
- The social competence dimension related to commitment and responsibility was at a higher level in nurses than in dentists. Other comparisons are not statistically significant.

6. Discussion

The functioning of people in the work environment, as well as their satisfaction with professional achievements are highly determined by their social competence, attitudes towards work, strategies adopted to cope with problems, and an emotional stance on the professional roles (Rongińska, Gaida, 2012).

Mroczek et al. (2017) describe relationships between the level of social competence and work-related behaviors in a group of physicians, nurses and paramedics. The majority of the healthcare workers (62.7%) had average general social competence, and 15.3% had low competence. High levels of general social competence and A competencies (which refers to attaining one's own goals and satisfying needs through persuasion, and the ability to influence other and resist the influence of others which refers to attaining one's own goals and satisfying needs through persuasion, and the ability to influence other and resist the influence of others), I competencies (which refers to competence determining the effectiveness of behaviors in situations of close interpersonal contact with patients, listening to patients, showing understanding and empathy for their fears, and tolerance for their impatience and dissatisfaction with therapeutic effects) and SE competencies (which refers to being an object of attention and potential appraisal from many people) were observed in every sixth medical worker.

A study of medical staff on social competence using the Social Competence Questionnaire by Matczak (2007) was conducted by Zaborniak-Sobczak, Walicka-Cupryś and Ćwirlej-Sozańska (2012). The results of their research were used to develop the first publication on competence assessment among physiotherapists. The authors showed that physiotherapists scored high on social competence (Matczak, 2007; Zaborniak-Sobczak et al., 2012). Also in the present study, physiotherapists scored high on social competence both in their self-assessment and in the assessment of their patients. However, it should be noted that the physiotherapists' self-assessment scores were slightly lower than the patients' scores. Thus, it is easy to see that the physiotherapists were more critical of themselves. Therapists and their patients felt that physiotherapists were able to behave impeccably in intimate and close interpersonal situations. At the same time, patients rated the social competences of physiotherapists very highly, including, among other things, their assertiveness, which shows that patients have a high degree of trust in their physiotherapists.

Physiotherapists fulfil their professional role in teamwork (Matczak, 2007). Therefore, they should be distinguished by certain qualities necessary to be effective in carrying out their tasks: agreeableness - reliable and appropriate cooperation, extraversion - being communicative, emotional stability - not succumbing to emotions and stress, conscientiousness - being dutiful, accurate and responsible. These are known as predictors of performance Traits such as acceptance, tolerance, caring and sincerity and openness also play an important role in the physiotherapist's work, which inspire trust and confidence in the patient (Jones, Day, 1997).

Interesting research results were obtained by Rutkowska (2005), who assessed social competences in a group of nurses. According to the author, they received an average rating, and it is worth noting that this profession requires constant interpersonal contact. A study conducted by the Chrzan-Rodak team (2019b), also showed that nurses represent low and average levels of social competence. In contrast, our own research showed high levels of social competence among medical staff. It should be noted that these studies were conducted in an interval of several years. Despite the significant change in the perception of their own social competence,

there is a further need for research on social competence among nurses and implementation of training programmes that will help them develop higher levels of social skills.

The analyses show that the type of healthcare profession differentiates the level of social competencies. It should be noted that in the nursing profession social competences play an important role due to the regulation of processes that involve self-creation (Bandach, 2013). Thanks to them, it becomes possible to improve interpersonal relationships, which is determined not only by efficient communication, but also by the process of getting to know other people or influencing them. In addition, having highly developed social competences has a positive impact on reducing work-related stress levels (Smarżewska, 2019). Rutkowska also points out that developed social competences contribute to reducing the probability associated with early exit from the profession (Rutkowska, 2012). Social competences can significantly contribute to inhibiting burnout, especially in the nursing profession. It is known that the longer the length of service a person has, the greater the risk of professional burnout occurring. However, the literature indicates that social competences provide a kind of protection against this syndrome (Chrzan-Rodak et al., 2019b).

Another aspect investigated in relation to social competence was differences in self-assessment according to age and gender. Walicka-Cupryś and Smolarz (2017) found no statistically significant age-related differences in their study, while gender was a differentiating variable in the assessment of physiotherapists' level of social competence. Men assessing themselves on the Social Competence Questionnaire scored high, while women scored average. It is possible that men are more decisive, more precise in their actions and physically strong, which has an impact on the performance of certain treatments or therapeutic exercises.

In our own study, the gender dependence of the self-assessment of one's social competences was confirmed. However, the monitored group of women perceives their own social competences better than the monitored group of men. It should be noted that the author included in the study not only physiotherapists, but also doctors, dentists, nurses and midwives.

In a study conducted by Rutkowska (2005), it was interesting to note the dependence of the social competences held by the author on age in a group of nurses. Respondents aged between 31 and 38 years were characterised by higher competences than younger or older nurses. In her study, she showed that the seniority or place of work of the medical staff did not significantly differentiate the self-assessment of social competences, which turned out to be consistent with the results of studies by other authors (Zaborniak-Sobczak et al., 2012). However, it is worth noting that seniority is a quite significant factor influencing the consolidation and learning of various skills, including interpersonal skills. Low levels of competence can be expected from physicians with less seniority, not belonging to scientific societies, not involved in students' education, working in only one place, and not participating in third cycle degree studies (Tychmanowicz, Kuśpit, 2012).

Walicka-Cupryś and Smolarz (2017) noted that the educational background of medical staff did not differentiate their self-assessment in relation to their level of social competence, whereas in the study presented in Zaborniak-Sobczak et al. (2012) such a difference was found. This may imply that social competences are shaped with the development of professional skills and numerous situations requiring appropriate interpersonal behaviour when working with patients during practice.

Pursuing the medical profession with only substantive qualifications without appropriate interpersonal skills does not guarantee the expected results (Brzozowska et al., 2013). Interpersonal competences are a condition for effectiveness and professional success. Their deficit prevents the development of skills and the proper performance of professional functions. Everyone working should improve their interpersonal competences in order to be able to solve problems that arise when working with patients. Social skills can be developed through social training or natural training, based on everyday professional experience, involving drawing constructive conclusions from various situations arising during work, as well as training in the nature of specialised training interventions (Smółka, 2008b). Correct assessment of the situation, logical thinking and making decisions adequate to the situation is the basis for obtaining the desired work results, therefore it is worth using various educational methods, which play a very important role in the development of social competences (Smółka, 2008a). Efficient functioning at work depends on social skills (Chrzan-Rodak et al., 2023). Highly developed social competences are the basis for practising this profession (Hebda, Madejski, 2004).

7. Summary

This study aimed to examine the medical personnel perception of the own social competences. This study assessed social competences, particularly work in a team, manage time effectively, self-education, communication and social relationship-building skills, assertive and work under stress, commitment and responsibility.

The study showed that medical personnel rate the social competencies they possess very highly. It has also been shown that the way medical personnel perceive the own social competences varies depending on the type of profession and gender.

Several practical implications can be derived from the results presented in this study. It seems that the most important conclusion is that exploration of the social competence of physicians and medical personnel is necessary to determine the needs for specialized training to acquire social competence, and to develop programs for the acquisition of the social competence of managing complex professional and social situations.

Polish higher education should support and recommend intensive implementation of social competence education and promote its importance in the entire catalogue of educational outcomes. In addition, the academic community's knowledge of social competences in Poland should be deeper and more forward-looking, and the understanding of the concept itself should be broader. An additional argument for raising the profile of social competences, not only in relation to Polish society, but to medical science, is the alarming data on the level of social trust in health care in Poland, including ambulance service and hospital emergency departments (Seweryn, Spodaryk, 2014). Patients expect medical professionalism from healthcare entities, elements of which should be included in the field of social competences.

In conclusion, it should be emphasised once again that it is social competence that is a prerequisite for medical personnel to do their job well, and it is undoubtedly important for the self-esteem of the latter to know that they are doing their profession well, thus helping the sick.

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