

ROLE OF AGE AND EXTRAVERSION LEVEL IN SHAPING THE SELECTED SOCIAL SKILLS IN MIDWIFERY STUDENTS

ROLA WIEKU I POZIOMU EKSTRAWERSJI W KSZTAŁTOWANIU WYBRANYCH KOMPETENCJI SPOŁECZNYCH STUDENTEK POŁOŻNICTWA

Mariusz Jaworski¹, Agata Tomala², Mariusz Panczyk¹, Mirosława Maria Adamus³

¹ Department of Teaching and Outcomes of Education, Faculty of Health Science
Medical University of Warsaw, Poland

² A graduate of Obstetrics Direction, Faculty of Health Science
Medical University of Warsaw, Poland

³ Department of Medical Psychology, Second Faculty of Medicine
Medical University of Warsaw, Poland

DOI: <https://doi.org/10.20883/pielpol.2017.77>

ABSTRACT

Aim. The aim of the study was to characterize midwifery students in terms of the level of selected social skills, such as empathy and the ability to work with emotions, assertiveness in a conflict situation and communication skills. The study was also an attempt to determine the role of age and extraversion level in shaping these competencies.

Material and Methods. The study group consisted of 228 purposefully selected students of Midwifery. Midwives' Social Competence Questionnaire was used to assess social skills. The level of extraversion was assessed by using the NEO Five-Factor Inventory.

Results. Depending on the study year, the midwifery students significantly differed in relation to the level of communication skills. These differences were not observed in the context of empathy and assertiveness in a conflict situation. Students' age significantly correlated with the level of their communication skills. In addition, this relationship was observed particularly in respondents with low and medium level of empathy. The level of extraversion played the key role in shaping communication skills and assertiveness in a conflict situation.

Conclusion. Our results suggest the need for using individualised education forms, which will enable efficient acquisition of social skills by midwifery students, especially interpersonal communication skills and assertive behaviour.

KEYWORDS: empathy, midwifery, communication, extraversion, social skills.

STRESZCZENIE

Cel. Celem pracy była charakterystyka studentek położnictwa pod względem poziomu kompetencji społecznych, takich jak: empatia i umiejętność pracy z emocjami, asertywność w sytuacji konfliktów oraz umiejętności komunikacji. Przeprowadzone badanie było także próbą określenia roli, jaką pełni wiek oraz poziom ekstrawersji w kształtowaniu tych kompetencji.

Materiał i metody. Grupę osób badanych stanowiło celowo wybranych 228 studentek położnictwa. Do oceny kompetencji społecznych wykorzystano Kwestionariusz Kompetencji Społecznych Położnych (KKSP). Natomiast Kwestionariusz Osobowości NEO-FFI był zastosowany do oceny poziomu ekstrawersji.

Wyniki. Studentki położnictwa istotnie statystycznie różniły się w zależności od roku studiów pod względem poziomu umiejętności komunikacyjnych. Takich różnic nie odnotowano w przypadku empatii oraz umiejętności asertywnego rozwiązywania konfliktów. Wiek studentek istotnie korelował z poziomem ich umiejętności komunikacyjnych. Dodatkowo, omawiana zależność była szczególnie obserwowana u badanych z niskim oraz przeciętnym nasileniem empatii. Kluczową rolę w nabywaniu kompetencji komunikacyjnych i asertywnych miało nasilenie ekstrawersji.

Wnioski. Uzyskane dane wskazują na konieczność stosowania zindywidualizowanych form kształcenia, co umożliwi efektywne nabywanie kompetencji społecznych przez studentki położnictwa, zwłaszcza umiejętności w zakresie komunikacji interpersonalnej i zachowań asertywnych.

SŁOWA KLUCZOWE: empatia, położnictwo, komunikacja, ekstrawersja, kompetencje społeczne.

Introduction

Apart from necessary knowledge and skills strictly assigned to the particular specialisation, in the training of health professionals more attention is being paid now to developing social skills necessary for efficient functioning of the interpersonal relationship with a patient.

Such skills are also necessary for practising as a midwife. In accordance with their assumptions, curricula in higher education, both for the first-cycle degree programme (three-year Bachelor's degree) and second-cycle degree programme (two-year Master's degree), compulsorily improve a number of skills necessary for

establishing good relationships and maintaining a good contact with a patient. Therefore, a midwife is supposed to master not only substantive and practical skills that are well-established and typical of the profession but also social skills as well [1, 2]. It is a complex scope of abilities that enable individuals to undertake activities in order to deal with certain, sometimes difficult, situations. Social skills were defined for the first time in 1959 by Robert White as “*specific human skills contributing to the effective interaction with the environment*” [3]. Different social skills need to be developed for effective functioning in diverse conditions in the workplace. A proper level of skills in this area may be reached either through a social training or during theoretical and practical classes run at university [4].

Important social skills include good interpersonal communication skills. It is a dynamic process of exchange of information between individuals, that is particularly important in medicine, especially in terms of developing good patient-health professional relationship and treatment efficiency [1, 5, 6, 7, 8].

Assertive behaviour constitutes another important element of social skills, closely related to communication skills. The first definition of assertiveness was coined by Salter [9] who described it as an ability to express both positive and negative emotions. At present, it is believed that assertiveness is an ability to pursue one's own interests while respecting the rights of others [10]. Lazarus emphasised that assertive skills concern the ability to initiate, sustain, and conclude conversations [11]. In addition, it is emphasised that, on the one hand, assertiveness may be developed with experience over a person's life or learned through appropriate training, but, on the other hand, there are indications emphasising genetic background of assertiveness and its correlations with temperament traits [12]. Assertive skills are important in effective resolution of conflicts that are frequently encountered in medical practice and most often concern conflicting objectives of healthcare personnel and patients [12, 13, 14, 15]. Therefore, it is important that health professionals are able to prevent conflicts or seek to solve them, when necessary. Assertive skills of expressing needs, beliefs, and opinions, without being aggressive or insulting, are crucial for effective resolution of conflicts [16].

Apart from communication skills and assertive resolution of conflicts, it is also important to have an appropriate level of empathy and ability to work with emotions. A number of definitions of empathy can be found in the literature devoted to this issue. A lot of them focus on describing the ability to recognise feelings of other

people [15, 17, 18]. Empathy is one of the important factors for understanding behaviours of other people as well as establishing satisfactory relations and ties with others [19]. Many publications on empathy and its importance in medical practice have focused mostly on the functioning of physicians [20, 21] and nurses [22, 23]. However, there is a lack of research on social skills of midwifery students. It is also difficult to find data allowing for characterisation of midwifery students in terms of communication skills as well as assertiveness in resolving conflicts and empathy.

Social skills cannot be discussed without referring to personality traits. Although social skills have a behavioural nature and can be learned over a person's life, the process of acquiring them (e.g. a learning process), using them in everyday life and monitoring them is closely dependent on the already established important personality traits [24, 25, 26]. Therefore, an analysis of acquiring social skills needs to refer not only to the aspects associated with life experience but also to personality dispositions. Extroversion is one of the key personality traits that can be treated as a regulator for acquiring and using social skills. Extraversion constitutes one of the Big Five personality traits and is related to sociability and maintaining positive relationships with others [27, 30]. It seems that too little attention has been drawn to the mechanisms that explain the role of extraversion in shaping social skills while the main focus has been placed on the correlation between the level of extraversion and group-working skills [28, 29].

The main aim of the study was to characterise midwifery students in terms of the level of social skills, such as empathy, assertiveness in resolving conflicts, and communication skills. An empirical study was also conducted to define the role of age and extraversion level in shaping of the aforementioned skills. The following research questions were formulated with reference to the study objectives:

1. What is the level of extraversion and other selected social skills such as empathy, assertiveness in resolving conflicts, and communication skills among midwifery students?
2. Are there any differences between students of various years of study (1st, 2nd, and 3rd) in terms of the level of extraversion and the remaining social skills (empathy, assertiveness in resolving conflicts, and communication skills)?
3. How do age and extraversion level influence the process of acquiring the social skills in question (empathy, assertiveness in resolving conflicts, and communication skills)?

Material and Methods

Characteristics of the study participants

The study group comprised 300 purposively selected first-cycle students of Midwifery at Warsaw Medical University. In accordance with the procedure, 100 first-year students (Group 1), 100 second-year students (Group 2), and 100 third-year students (Group 3) were qualified to the study. In the end, 228 correctly completed questionnaires were returned (76 from each year of study). In the case of the remaining 72 questionnaires, answers to certain questionnaire items were found missing, which made it impossible to sum up the results correctly. Therefore, they were excluded from the next part of the statistical analysis. The study was performed between October and November 2015. The inclusion criteria encompassed the following: (1) female gender of the study participants, (2) being a first-, second-, or third-year student of the first-cycle degree programme in Midwifery, (3) providing free consent to the participation in the study. In addition, measurement of age of the study participants was introduced as a controlled variable.

The Jonckheere-Terpstra test for ordered alternatives used for independent samples demonstrated a statistically significant correlation between the age of the study participants and the year of study ($Z = 11.25$; $p < 0.01$). As expected, students starting university education were the youngest (19.5 ± 1.70 years) and those on the third year were the oldest (21.5 ± 1.50 years). The mean age of the second-year students amounted to 20.6 ± 1.00 years.

Research tools

Midwives' Social Competence Questionnaire (in Polish: Kwestionariusz Kompetencji Społecznych Późnych, KKSP), developed by Tomal and Jaworski was used in the study (Midwives' Social Competence Questionnaire (KKSP) was developed by A. Tomala and M. Jaworski and then assessed by M. Panczyk with the use of psychological parameters for the purpose of a diploma thesis by the first author of the present study). It comprised 26 statements grouped according to three subscales:

- Subscale One – “Communication skills” – comprised 14 statements that allowed for the assessment of the level of communication skills on a 5-point Likert scale (1 – strongly disagree, 2 – disagree, 3 – difficult to say, 4 – agree, 5 – strongly agree). The higher the score, the better the communication skills. The following statement was a sample item in the subscale: “I can communicate important information in a way that is clear and comprehensible for a patient.” Cronbach's alpha reliability coefficient for the study group amounted to 0.90.
- Subscale Two – “Empathy and ability to work with emotions” – included 6 statements that allowed for assessing the level of empathy and ability to work with emotions. As before, a 5-point Likert scale was used to assess the level of the features (with 1 meaning “strongly disagree” and 5 meaning “strongly agree”). A sample statement was as follows: “I can understand annoyance/irritation of a patient waiting in the admission room or for a gynaecologist”. The higher the score, the better the empathy and ability to work with emotions. Cronbach's alpha reliability coefficient for the study group amounted to 0.66.
- Subscale Three – “Assertiveness in a conflict situation” – consisted of 6 statements allowing for assessment of the level of assertive behaviour in a conflict situation. The study participants used a 5-point Likert scale (with 1 meaning the lowest level and 5 meaning the highest level of a particular feature) to assess their own personality dispositions. The following statement is a sample statement used in this particular subscale: “In a conflict situation I care about mutual agreement between both sides.” Cronbach's alpha reliability coefficient for the study group amounted to 0.65.

NEO Five-Factor Inventory (NEO-FFI) was used to measure extraversion level [30]. The questionnaire was developed by P.T. Costa and R.R. McCree and Polish adaptation was made by Bogdan Zawadzki, Jan Strelau, Piotr Szczepaniak and Magdalena Śliwińska. The questionnaire comprised 60 statements that allow for characterisation of the main personality traits included in the Big Five personality traits. It was also helpful in assessing the level of personality traits such as neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Questionnaire reliability was satisfactory. The authors observed high internal consistency for each of the five scales. Cronbach's alpha coefficient was between 0.81 and 0.86 [30]. It needs to be emphasised that, for the validity of psychological assessment, the study participants filled in the entire questionnaire but only the extraversion part was used for further analysis.

Statistical analysis

The overall score for each of the three subscales included in KKSP was normalized and standardized, which helped to develop sten scores. The results thus obtained for KKSP subscales and extraversion scale were analysed for consistency with normal distribution with the use of the Kolmogorov-Smirnov test. In addi-

tion, the following parameters of descriptive statistics were established: mean (M) with the 95% confidence interval and standard deviation (SD). Due to the fact that conditions for ANOVA were not met, the assessment of differences between the groups was performed using the non-parametric Kruskal-Wallis rank test. Effect size was calculated using eta-squared (η^2) for statistically significant differences. Spearman's rank correlation coefficient (Spearman's rho) was applied to assess correlations between selected pairs of quantitative variables (age, scores obtained in KKSP subscales, extraversion level). In addition, a linear regression technique with least square estimation was used to analyse the influence of age and extraversion on the level of assertiveness and communication skills. The regression model parameters and standard errors were estimated and standardized beta coefficient ($\beta_{stand.}$) was calculated to determine the influence of predictors on the dependent variable. All statistical analyses were performed using IBM® SPSS Statistics 21 software. The significance level of $\alpha < 0.05$ was set as sufficient.

Results

Characteristics of study participants in terms of level of extraversion

Students of different years of study did not vary in terms of extraversion level. See **Table 1** for detailed data. Mean level of extraversion among midwifery students was significantly higher than that of the entire Polish population [30].

Table 1. Characteristics of students in terms of level of extraversion

Psychological trait	Year of study	M±SD	Mean ranks	95% confidence interval for the mean		H	p
				Lower limit	Upper limit		
Extraversion	1st	43.0±3.71	120.64	42.18	43.87	1.21	0.547
	2nd	42.2±4.28	108.96	41.23	43.19		
	3rd	42.6±4.10	113.90	41.68	43.55		

M±SD – mean ± standard deviation, H – Kruskal-Wallis test, p – probability value, 1st – first year of study (Group 1); 2nd – second year of study (Group 2); 3rd – third year of study (Group 3)

Source: author's own research

Characteristics of study participants in terms of level of selected social skills

The respondents from particular years of study were characterised with respect to social skills such as communication skills, empathy, and assertiveness in

a conflict situation. The Kruskal-Wallis rank test demonstrated that students from particular groups differed in terms of communication skills ($H = 35.40$; $p < 0.001$; $\eta^2 = 0.187$; $p < 0.001$) (**Table 2**). A more detailed *post hoc* analysis with multiple comparisons of the mean ranks showed that the first-year students (Group 1) had a much lower level of communication skills compared to the second-year (Group 2) and third-year students (Group 3) ($Z = -5.00$; $p < 0.001$ and $Z = -5.29$; $p < 0.001$, respectively). However, the second-year (Group 2) and third-year students (Group 3) had a similar level of communication skills ($p > 0.05$). A comparison of the level of empathy and ability to work with emotions as well as assertiveness in a conflict situation between particular years of study did not show any statistically significant differences ($p > 0.05$). See **Table 2** for detailed data.

Table 2. Analysis of intensity of selected social skills of midwifery students (n = 228)

KKSP Subscales	Year of study	M±SD	Mean ranks	95% confidence interval for the mean		H	p
				Lower limit	Upper limit		
Communication skills	1st	4.3±2.20	77.79	3.78	4.78	35.40	0.001
	2nd	6.1±1.71	131.28	5.67	6.45		
	3rd	6.2±1.41	134.43	5.83	6.48		
Empathy and ability to work with emotions	1st	5.6±1.87	114.91	5.20	6.05	1.79	0.408
	2nd	5.7±1.84	121.45	5.29	6.13		
	3rd	5.3±1.82	107.14	4.87	5.70		
Assertiveness in a conflict situation	1st	5.6±1.91	115.28	5.19	6.06	1.14	0.566
	2nd	5.22±2.35	108.45	4.69	5.76		
	3rd	5.6±1.69	119.78	5.26	6.03		

M±SD – mean ± standard deviation, H – Kruskal-Wallis test, p – probability value, 1st – first year of study (Group 1); 2nd – second year of study (Group 2); 3rd – third year of study (Group 3)

Source: author's own research

Subsequently, the respondents were divided into three subgroups: low, medium, and high level of the social skills. The division was performed on the basis of mean values and standard deviation (M – mean, SD – standard deviation) and produced the following subgroups (**Table 3**).

Subgroup A – low level of the social skills; level of variables $< (M - SD)$.

Subgroup B – medium level of the social skills; level of variables ranging $M \pm SD$.

Subgroup C – high level of the social skills; level of variables $> (M + SD)$.

Table 3. Respondents' division (n = 288) into subgroups in terms of level of variables

KKSP Subscales	Subgroup A	Subgroup B	Subgroup C
	low level n (%)	medium level n (%)	high level n (%)
Communication skills	38 (16,7%)	156 (68,4%)	34 (14,9%)
Empathy and ability to work with emotions	35 (15,4%)	158 (69,3%)	35 (15,4%)
Assertiveness in conflict	16 (7,2%)	178 (80,5%)	27 (12,2%)

n – group size, % – percentage of subjects

Source: author's own research

Correlations between age and extraversion, and social skills

A significant correlation was found between students' age and the level of communication skills (Spearman's rho = 0.25; p < 0.001). However, no correlations were observed between age and the level of empathy and ability to work with emotions (p > 0.05) as well as assertiveness in a conflict situation (p > 0.05). In addition, the analysis demonstrated that the correlation between age and communication skills was stronger among students with low empathy levels and low ability to work with emotions. A slightly weaker correlation, but also statistically significant, was found among students with medium empathy levels and medium ability to work with emotions. In the case of students with high empathy levels no correlation between age and communication skills was found (**Table 4**).

Table 4. Correlations between age and extroversion, and level of empathy

Subgroups categories in terms of empathy and ability to work with emotions	Relationship between age and level of communication skills	
	Spearman's rank correlation	p
Low level of empathy	0.391	0.020
Medium level of empathy	0.239	0.002
High level of empathy	0.146	0.403

Source: author's own research

Subsequent analyses showed a correlation between age and the level of communication skills among students with high levels of assertiveness in a conflict situation. A slightly weaker correlation, but also statistically significant, was found among students with medium levels of assertiveness in a conflict situation. In the case of students with high levels of assertiveness no such correlation was found (**Table 5**).

Table 5. Correlations between age and extroversion, and level of assertiveness skills

Subgroup categories in terms of assertiveness skills	Relationship between age and level of communication skills	
	Spearman's rank correlation	p
High level of assertiveness	0.365	0.050
Medium level of assertiveness	0.208	0.007
Low level of assertiveness	0.257	0.150

Source: author's own research

Regression analysis did not show any significant influence of predictors (age and extraversion levels) on empathy levels and ability to work with emotions (F = 1.835; p < 0.162). It was, however, observed that the extraversion levels had a positive impact on the level of assertiveness in a conflict situation ($\beta_{stand.} = 0.347$; p < 0.001), while no influence of age on this variable was observed (F = 15.634; p < 0.001; **Table 6**). In addition, no statistically significant interaction was found between age and level of extraversion that would exert any influence on the level of assertiveness in a conflict situation (F = 0.05; p > 0.05). The last regression model analysed in the present study demonstrated that both age ($\beta_{stand.} = 0.192$; p < 0.003) and extraversion levels ($\beta_{stand.} = 0.155$; p < 0.018) had a significant influence on the level of communication skills of the respondents (F = 7.423; p < 0.001 – **Table 6**). At the same time, no statistically significant interactions were observed between age and level of extraversion that would exert any influence on the level of communication skills (F = 0.56; p > 0.05).

Table 6. Influence of age and extroversion on assertiveness and communication skills

Predictor	b	t	p	$\beta_{stand.}$	95% confidence interval for $\beta_{stand.}$	
					Lower limit	Lower limit
Influence of age and extraversion on assertiveness						
Intraccept	-2.893	-1.410	0.160			
Age	0.052	0.665	0.507	0.042	-0.082	0.165
Extraversion	0.172	5.550	<0,001	0.347	0.224	0.470
Influence of age and extraversion on communication skills						
Intraccept	-2.635	-1.246	0.214			
Age	0.237	2.971	0.003	0.192	0.065	0.319
Extraversion	0.076	2.393	0.018	0.155	0.027	0.282

b – regression coefficient, $\beta_{stand.}$ – standardized regression coefficient, t – value of the test statistic, p – probability value

Source: author's own research

Discussion

One of the key findings of the present paper was the fact that there was a significant correlation between the age of midwifery students and the level of their communication skills. This correlation was particularly evident among students with low or medium level of empathy. No such correlations were found, however, in the case of high level of empathy. It needs to be emphasised that medical literature has very often indicated empathic behaviour as an important part of proper communication between health professionals and patients since it encourages the development of a good therapeutic relationship. Therefore, empathic attitude has been desired and required [31, 32]. The present study also showed that empathy was of crucial importance for developing communication skills in relation to age. Nevertheless,

the present results may have suggested that the initial level of empathy might have been significant for the process of learning communication skills. At present, it would be difficult to explain the mechanisms of the process. Thus, it would be advisable to continue the research that would facilitate a more detailed analysis of relationships between age and level of empathy with respect to the development of social skills of midwifery students.

It is worth emphasising that the present results demonstrated that the level of empathy of students was moderate and comparable, regardless of the duration of studying. One of the reasons for this is a particular social role of a midwife who is supposed to have a high level of empathy, pro-social attitude and teamwork skills as well as to be open to the needs of other people [33]. The nature of the study itself constituted another factor that could explain the lack of differences in terms of empathy among the respondents. Midwifery students were asked to fill in the questionnaire at the beginning of the academic year, which could have impeded the process of finding differences associated with the duration of studying and the number of practical classes they had already attended. A study conducted at the end of the academic year would help to verify the influence of these two factors. Perhaps a longitudinal study with three repeated measurements of the level of empathy in the very same student conducted during each year of study would provide a more complete overview of the level of personality traits discussed here and their change over time.

It needs to be noticed that results of studies analysing the level of empathy in medical students were ambiguous [34], which would emphasise the changing nature of empathy levels [35]. Studies covering various medical professions have demonstrated that the level of empathy had decreased, increased, or had not changed [36-38]. It is believed that disparity between expectations of students and the nature of work with patients in a healthcare unit is one of the key reasons for a significant drop in the level of empathy that has been observed in the course of medical education. This is associated with difficulties and problems encountered during practical classes, which could lead to confusion, frustration, decreased motivation, and lowered level of empathy in many cases [37-39].

Most analyses of the level of empathy among representatives of medical professions concerned students of medicine or nursing [34, 35]. An important study devoted to this issue was conducted by McKenn and Boyle among midwifery students in Australia [40]. The study included a group of 52 midwifery students and the Jefferson Empathy Scale was used for measurement.

The results demonstrated that prospective midwives had a moderate level of empathy ($M = 109.9$; $SD = 20.9$), which was consistent with the present findings.

Interestingly, no differences were found with respect to the level of empathy between students of different years of study, which would go against the conclusions drawn by McKenn and Boyle [40]. The lowest level of empathy in the Australian study was observed among the first-year students ($M = 101.0$; $SD = 28.5$) and the highest one was found among the third-year students ($M = 119.9$; $SD = 12.6$). McKenn and Boyle [40] suggested that the level of empathy in students was related to gaining clinical experience in the course of direct contacts with patients. In this case, clinical practice only began in the second year of study; McKenn and Boyle associated an increase in the level of empathy in the course of study with the process of gaining experience in working with patients during practical classes.

Because of the lack of a greater number of studies on the assessment of the level of empathy among Polish midwifery students, the present findings provided new valuable data. Particular attention should be given to the lack of change in the level of empathy throughout the course of studies despite the fact that as soon as in the first year of study on their courses in psychology, sociology, and educational sciences students learned how to deal with emotions [41]. In addition, at the same time students had 360 clinical practice hours when they were given the opportunity to acquire relevant practical skills in that regard [42].

The present study results showed differences between midwifery students with respect to their interpersonal communication skills. The lowest level of communication skills was observed among the first-year students and in the following years it was increasing proportionally. This might have been associated with the process of acquiring relevant social skills that were developing in line with the increasing number of classes and experiences during the course of study, starting from the first year of the programme [41, 42]. However, it should be noticed that only a small percentage of Polish studies has analysed communication skills of midwifery students. It may be assumed that this was largely caused by a limited access to or even a lack of specific research tools tailored to this particular group of students. Therefore, it was difficult to refer the present findings to the results obtained by other researchers. One of the few reports concerning midwifery students of a Master's degree programme analysed the level of preparation for future employment. A study by Gotlib and Pakuła [43] assessed communication skills with the use of one statement: "*I can communicate effectively with others.*" It was demonstrated that students had

a relatively high self-assessment with respect to their communication skills (median amounted to 4 on a five-point scale, with 5 representing the highest score).

A need for development of communication skills in medical students is now being extensively discussed and proposed in the medical literature. This results from the fact that the ability to communicate appropriately is one of the key elements of taking an effective history and conducting effective treatment. Good communication between health professionals and patients is an essential element of healthcare system from the patient's point of view as well; it allows patients to meet their vital needs related to treatment and health protection. It needs to be emphasised that it is important in the context of an office of a physician or other health professional [44]. Good communication skills are also of great importance for the practice of midwives.

It should be noted that the receiver of the message (patient) receives it and interprets it on the basis of her own experience and knowledge. Therefore, in order to develop a good therapeutic relationship, midwives are supposed to use appropriate language, make sure that they are well understood and that they understand messages sent out by patients. One of the common complaints made by patients is that healthcare personnel uses incomprehensible terminology. Members of a therapeutic team use medical jargon for precise communication but persons from outside of the medical environment perceive it as not understandable and hermetic [1–3].

Assertiveness in a conflict situation constituted another social competence analysed in the present study. The present findings demonstrated that midwifery students did not differ in that regard. It should be noted that no Polish analyses of assertiveness of midwifery students in a conflict situation had been reached, which would indicate a need for further studies in that regard. A slightly similar study that might constitute a source of knowledge about problem-solving and conflict handling skills was conducted among midwifery students by Gotlib and Pakuła [43]. Students responded to the following statements using a five-point scale: “*I am a conflict-free person*” (Median=4), “*I have the ability to convince others to change their views*” (Median=3), “*I am a good listener*” (Median=5), “*I never run away from problems*” (Median=4), “*I am assertive*” (Median=4).

Interesting data, compliant with the present findings, were provided by a study conducted in Turkey by Altun [45]. It aimed to evaluate the perception of one's own communication skills by 218 nursing and midwifery students. The Problem-Solving Inventory (developed by Heppner and Petersen [46]) was used in the study and it was observed that midwifery students had a higher lev-

el of problem-solving skills. No differences were found between particular years of study.

Regression analysis also provided some interesting data, suggesting that the level of extraversion played a key role in acquiring communication skills, along with age. However, only the level of extraversion was important for the development of assertiveness. Age had no impact on the level of assertiveness among the study participants. These results could constitute an important guidance on how to develop the desired social skills in relation to specific personality traits of students. A more personalised approach to the process of developing these skills that would include an individualised level of extraversion (understood as a tendency to experience positive emotions and engage in social interactions with ease) could increase the effectiveness of future functioning as a midwife [30]. The level of extraversion might be crucial for the development of assertiveness and communication skills and it may also help to acquire social skills faster [27–29]. This will be of particular importance to students with a low level of extraversion, who tend to be more reserved in social interactions and passive in interpersonal relationships. According to Costa and McCrae, such persons may more often experience difficulties in trying to be assertive [30].

It should also be noted that the present study has certain methodological limitations. These include, among others: the cross-cutting nature of research, lack of analysis of changes related to time and experience gained, and intensity of variables associated with social skills. The limitations also result from the selection of study participants; real data might have been simplified due to focusing only on Bachelor's degree students, without taking into account Master's degree students. In addition, a limited number of publications on the present issue pose difficulties, which emphasises a pilot and exploratory nature of the present study and makes it impossible to compare the present findings with other results. Nevertheless, the present outcomes allow us to outline the problem of social skills in midwifery students and encourages to continue the research.

The present findings shed new light on the issue of developing social skills in medical professions, with particular reference to the need for developing and strengthening those skills among midwifery students. The data obtained in the present study demonstrated a need to individualise forms of training, thus allowing students to effectively acquire these skills, particularly competence related to interpersonal communication and assertive behaviour. When developing curricula, consideration should be given to teaching methods that will provide the opportunity to acquire necessary skills not only to students who establish social relationships

with ease but also to those more reserved in social interactions.

References

1. Özdemir G, Kaya H. Midwifery and Nursing Students' Communication Skills and Life Orientation: Correlation with Stress Coping Approaches. *Nursing and Midwifery Studies*. 2013; 2(2): 198–205.
2. Kourkouta L, Papathanasiou IV. Communication in Nursing Practice. *Materia Socio-Medica*. 2014; 26(1): 65–67.
3. Waters E, Sroufe LA. Social competence as a developmental construct. *Dev Rev*. 1983; 3: 79–97.
4. Nęcka E. Inteligencja. Geneza-struktura-funkcje. Gdańsk: Gdańskie Wydawnictwo Psychologiczne; 2003.
5. Zolnieriek KB, Dimatteo MR. Physician communication and patient adherence to treatment: a meta-analysis. *Med Care*. 2009; 47(8): 826–834.
6. Smith S, Hanson JL, Tewksbury LR, Christy C, Talib NJ, Harris MA, Beck GL, Wolf FM. Teaching patient communication skills to medical students: a review of randomized controlled trials. *Eval Health Prof*. 2007; 30(1): 3–21.
7. Stangierska I, Horst-Sikorska W. Ogólne zasady komunikacji między pacjentem a Lekarzem. *Wybrane Problemy Kliniczne*. 2007; 58–68.
8. Adib Hajbaghery M, Rezaei Shahsavarloo Z. Assessing the Nursing and Midwifery Students Competencies in Communication With Patients With Severe Communication Problems. *Nursing and Midwifery Studies*. 2014; 3(2): e18143.
9. Salter A. Conditioned reflex therapy: The classic book on assertiveness that began behavior therapy. Gretna, LA: Wellness Institute; 2002.
10. Wojcieszka B. Człowiek wśród ludzi. Zarys psychologii społecznej. Warszawa: Wydawnictwo Naukowe „Scholar”; 2002.
11. Lazarus RS. On the primacy of cognition. *American Psychologist*. 1984; 39: 124–129.
12. Tomorowicz A. Struktura kompetencji społecznych w ujęciu interakcyjnym. *Psychiatria*. 201; 8(3): 91–96.
13. Back AL, Arnold RM. Dealing with conflict in caring for the seriously ill: “it was just out of the question”. *JAMA*. 2005; 293(11): 1374–1381.
14. Breen CM, Abernethy AP, Abbott KH, Tulsy JA. Conflict associated with decisions to limit life-sustaining treatment in intensive care units. *J Gen Intern Med*. 2001; 16: 283–9.
15. Halpern J. Empathy and Patient–Physician Conflicts. *Journal of General Internal Medicine*. 2007; 22(5): 696–700.
16. Makara-Studzińska M. Asertywność i umiejętności negocjacyjne [W:] *Psychologia w położnictwie i ginekologii*, Warszawa: Wydawnictwo Lekarskie PZWL; 2008. 34–35.
17. Decety J, Fotopoulou A. Why empathy has a beneficial impact on others in medicine: unifying theories. *Frontiers in Behavioral Neuroscience*. 2014; 8: 457.
18. Kelley JM, Kraft-Todd G, Schapira L, Kossowsky J, Riess H. The Influence of the Patient–Clinician Relationship on Healthcare Outcomes: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *PLoS ONE*. 2014; 9(4): e94207.
19. Derksen F, Bensing J, Lagro-Janssen A. Effectiveness of empathy in general practice: a systematic review. *The British Journal of General Practice*. 2013; 63(606): e76–e84.
20. Kelm Z, Womer J, Walter JK, Feudtner C. Interventions to cultivate physician empathy: a systematic review. *BMC Medical Education*. 2014; 14: 219.
21. Batt-Rawden SA, Chisolm MS, Anton B, Flickinger TE. Teaching empathy to medical students: an updated, systematic review. *Acad Med*. 2013; 88(8): 1171–1177.
22. Yu J, Kirk M. Measurement of empathy in nursing research: systematic review. *J Adv Nurs*. 2008; 64(5): 440–454.
23. Khodabakhsh M. Attachment styles as predictors of empathy in nursing students. *Journal of Medical Ethics and History of Medicine*. 2012; 5: 8.
24. Frost DE. The psychological assessment of emotional intelligence. W: Thomas JC., Hersen M. (red.) *Comprehensive handbook of psychological assessment*. New Jersey: Jon Wiley and Sons Inc, vol 4; 2003. 203–215.
25. Manuel RS, Borges NJ, Gerzina HA. Personality and clinical skills: any correlation? *Academic Medicine*. 2005; 80(10): S30–S33.
26. Hulsman RL, Peters JF, Fabriek M. Peer-assessment of medical communication skills: the impact of students' personality, academic and social reputation on behavioural assessment. *Patient Educ Couns*. 2013; 92(3): 346–354.
27. Riggio RE, Taylor SJ. Personality and communication skills as predictors of hospice nurse performance. *J Bus Psychol*. 2000; 15(2): 351–359.
28. Rhee J, Parent D, Basu A. The influence of personality and ability on undergraduate teamwork and team performance. *SpringerPlus*. 2013; 2: 16.
29. Uchida M, Kaneko M, Kawa S. Effects of personality on overtime work: a cross-sectional pilot study among Japanese white-collar workers. *BMC Research Notes*. 2014; 7: 180.
30. Zawadzki B, Strelau J, Szczepaniak P, Śliwińska M. NEO-FFI – Inwentarz Osobowości NEO-FFI. Warszawa: Pracownia Testów Psychologicznych; 1998.
31. Richardson C, Percy M, Hughes J. Nursing therapeutics: Teaching student nurses care, compassion and empathy. *Nurse Educ Today*. 2015; 35(5): e1–e5.
32. Derksen F, Bensing J, Lagro-Janssen A. Effectiveness of empathy in general practice: a systematic review. *The British Journal of General Practice*. 2013; 63(606): e76–e84.
33. Bradshaw C. Working and learning: Post-registration student midwives' experience of the competency assessment process. *Midwifery*. 2013; 29: 519–525.
34. Hojat M, Vergare MJ, Maxwell K, Brainard G, Herrine SK, Isenberg GA, Veloski J, Gonnella JS. The devil is in the third year: a longitudinal study of erosion of empathy in medical school. *Acad Med*. 2009; 84(9): 1182–1191.
35. Neumann M, Edelhäuser F, Tauschel D, Fischer MR, Wirtz M, Woopen C, Haramati A, Scheffer C. Empathy decline and its reasons: a systematic review of studies with medical students and residents. *Acad Med*. 2011; 86(8): 996–1009.
36. Ziółkowska-Rudowicz E, Kładna A. Empatia w medycynie. Szczeci: Pomorski Uniwersytet Medyczny; 2014.
37. Chen D, Kirshenbaum DS, Yan J, Kirshenbaum E, Aseltine RH. Characterizing changes in student empathy throughout medical school. *Medical Teacher*. 2012; 34(4): 305–311.
38. Newton B. Is There Hardening of the Heart During Medical School?. *Academic Medicine*. 2008; 83(3): 244–249.
39. Adamus M, Jaworski M. Poczucie tożsamości zawodowej a postrzeganie etosu nauczycielskiego wśród studentów wybranych kierunków medycznych. *Medycyna Dydaktyka Wychowanie*. 2014; XLVI(1): 27–30.
40. McKenna L, Boyle M. Levels of empathy in undergraduate midwifery students: An Australian cross-sectional study. *Woman and Birth*. 2011; 24: 80–84.
41. Przewodnik Dydaktyczny Dla Studentów Kierunku Położnictwo Studia I Stopnia. *Warszawski Uniwersytet Medyczny Wydział Nauki o Zdrowiu*. http://wnoz.wum.edu.pl/sites/wnoz.wum.edu.pl/files/przewodnik_poloznictwo_licencjat_2014_01_a_iwan.pdf (Dostęp: Grudzień 2016).
42. Praktyki Zawodowe W Czasie I Roku Studiów Licencjackich Na Kierunku Położnictwo. <http://wnoz.wum.edu.pl/content/ksztalcenie-na-kierunku-poloznictwo> (Dostęp: Grudzień 2016).

43. Gotlib J, Pakuła J. Samoocena przygotowania zawodowego studentek położnictwa Warszawskiego Uniwersytetu Medycznego, Przegląd Medyczny Uniwersytetu Rzeszowskiego I Narodowego Instytutu Leków w Warszawie, Rzeszów. 2012; 1: 74–85.
44. Wilczek-Rużyczka E. Empathy in the therapeutic relationship between the physician, nurse, and patient. *New Medicine*. 2009; 12(1): 24–28.
45. Altun I. The perceived problem solving ability and values of student nurses and midwives, *Nurse Education Today*. 2003; 23: 575–584.
46. Heppner PP, Petersen CH. The development and implications of a personal problem solving inventory. *Journal of Counseling Psychology*. 1982; 29(1): 66–75.

The manuscript accepted for editing: 17.02.2017

The manuscript accepted for publication: 24.06.2017

Funding Sources: This study was not supported.

Conflict of interest: The authors have no conflict of interest to declare.

Address for correspondence:

Mariusz Jaworski

Żwirki i Wigury 81

02-091 Warsaw, Poland

phone: (+48) 22 57 20 490

e-mail: jaworskimariusz1@gmail.com

Department of Teaching and Outcomes of Education, Faculty of Health Science, Medical University of Warsaw, Poland