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EVALUATING THE IMPACT OF ONLINE TRAINING ON THE DEVELOPMENT OF PROFESSIONAL SKILLS AMONG HEALTHCARE STUDENTS AND STAFF: FINDINGS FROM THE EQUAL TREATMENT PROJECT

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Abstract. Healthcare professionals' attitudes can result in poorer health outcomes for individuals with intellectual disabilities. This is often due to a lack of knowledge, skills, or experience in adequately providing health care services to these persons.
Methodology. The purpose of the study – to evaluate effect of online training on the development of professional competencies among health care students and staff. The survey was conducted in four countries: Lithuania, Spain, Greece and Finland. Research participants - students of health care study programs and health care staff who participated in online training courses. Applying the strategy of quantitative research – a structured survey (online) professional competences were assessed. Research instrument – a structured questionnaire of 30 questions, purposefully assessing professional competencies related to communication with patients with intellectual disabilities. The survey included 163 respondents. The research data was processed using IBM SPSS, version 22. The study was carried out during the implementation of the project "Equal Treatment Supporting rights and access of people with intellectual disabilities to secondary and tertiary healthcare service" (101049115 ERASMUS-EDU-2021-PCOOP-ENGO).
Results. The training conducted as part of the project helped healthcare students and professionals enhance the necessary professional competencies for working with PWID. A survey of healthcare students, conducted before and after completing the first module "Knowledge about PWID possible characteristics and needs", revealed that, out of 10 statements, 5 showed higher averages after the training ($p \leq 0.05$). After completing the training, competencies related to knowledge about PWID's possible characteristics and needs improved by 50% ($p \leq 0.05$). Training helped health care professionals understand that when communicating with a patient with intellectual disabilities, they need to focus not only on the patient's family, but also on the patient themselves, the benefits of a health passport document, the nuances of consultations, the importance of obtaining informed consent, and the significance of a multidisciplinary team, as well as the presence of coexisting physical health problems.
Conclusions. Participation in the project's online course improved professional competencies related to communication, possible characteristics and needs of patients with intellectual disabilities and management of diversity.
Keywords: intellectual disabilities, healthcare, competencies.

The introduction.

Core competencies refer to the values, attitudes, and beliefs an organization upholds and expects all healthcare providers to demonstrate consistently. These competencies encompass some skills, knowledge, and attitudes that enable healthcare professionals to carry out tasks following established standards of care (Mohammed Al Jabri et al., 2021).

While most nurses in Canada indicated having interacted with a patient suspected of having an intellectual disability within the past year, only 28% said they were aware of strategies to recognize such disabilities, and just half felt confident in their ability to adjust their communication and approach accordingly (Spassiani et al., 2020).

The research results of the analysis of scientific articles from the Netherlands indicate a lack of knowledge about intellectual disabilities among nurses, with most of them viewing people with intellectual disabilities as more difficult to care for because they would comply with requests less easily, possibly more aggressive, and less cooperative (Pelleboer-Gunnink et al., 2017).

A systematic review of 18 studies from 8 countries underlines that in the majority of European countries nurses working with patients with intellectual disabilities education still lack courses on this specific patient group, as opposed to the UK (Appelgren et al., 2018).

A 2020 study in the US showed that while most healthcare providers claimed they were not biased against individuals with disabilities, the vast majority demonstrated implicit bias. The research findings indicate that certain factors could be leveraged to shape educational programs and institutional policies, fostering a culture that encourages attitudes and behaviors with minimal disability bias (VanPuymbrouck et al., 2020).

In Ireland, it is clear that healthcare systems often fail to meet the unique needs of individuals with intellectual disabilities. Ensuring that people with intellectual disabilities receive equitable, high-quality, and person-centered care is crucial for upholding their fundamental rights (Hay et al., 2023).

The findings from a US study showed that experience, comfort, and competence were generally higher when dealing with individuals with autism spectrum disorder and intellectual disability, and lower for those with deaf-blindness. Overall, experience levels were higher than comfort levels, which in turn were higher than competence levels. The most effective settings for ongoing training involved regular interactions with individuals with intellectual disability (Smith et al., 2021).

Healthcare professionals' attitudes and stigmatization can result in poorer health outcomes for individuals with intellectual disabilities. This is often due to a lack of knowledge, skills, or experience in providing adequate support for this population (Doody et al., 2022).

Capacity building and improving the knowledge of service providers was identified as a way of improving access, particularly in improving the quality of services (Whittle et al., 2018).

Healthcare professionals need to develop their skills and knowledge to support better the health literacy and communication needs of patients with intellectual disabilities. Developing the competencies of healthcare workers is a necessary condition for the provision of quality healthcare services to disabled patients and the performance of effective professional functions. Capacity building and improving the knowledge of service providers was identified as a way of improving access, particularly concerning improving the quality of services.

Individuals with disabilities face ongoing disparities in both their health status and the care they receive. A key factor contributing to these inequities is the insufficient awareness and training among healthcare providers about the diverse needs and experiences of disabled individuals. Additionally, negative attitudes and assumptions further exacerbate the issue. Challenges in accessing quality care persist due to providers' lack of competence in disability care, including inaccessible facilities and equipment, poor communication, and failure to account for a person's disability or functional limitations when making treatment decisions (Lee et al., 2023).

Although the number of people with autism spectrum disorder, intellectual disabilities, and developmental disabilities is rising, many still face significant unmet physical and mental health needs. Comprehensive training for healthcare professionals can play a key role in addressing this issue (Adirim et al., 2021).

In medicine, communication is regarded as a fundamental clinical skill for building patient relationships, which are crucial for accurate diagnosis and effective treatment. Since these skills can be developed through practice, experiential learning is vital, and teaching should be interactive and personalized, following the principles of evidence-based, person-centered care. Effective communication between medical staff and patients is a key aspect of establishing a therapeutic relationship (Ferreira-Padilla et al., 2015).

As in many people-centered professions, communication skills are crucial in medical practice. However, traditional medical education in many countries often overlooks the communication skills needed to interact effectively with patients. Teaching these skills to medical students can enhance their clinical competence (Choudhary, Gupta, 2015).

Canadian study emphasizes the low perceived readiness among medical students to provide care for neurodivergent patients and their desire for additional education. Integrating interactive training into medical school curricula focused on adapting care for neurodivergent individuals could enhance medical trainees' confidence in working with these patients and improve the quality of care (Bitektine et al., 2024).

Most research shows that healthcare professionals and medical students still lack the competence to provide healthcare services to persons with intellectual disabilities. There is also a great lack of training and research instruments to assess the level and quality of acquired competencies.

The research was conducted as part of the project "EQUAL TREATMENT: Supporting the rights and access of people with intellectual disabilities to secondary and tertiary healthcare services" (No. ERASMUS-EDU-2021-PCOOP-ENGO-101049115). One of the project's objectives was to reduce barriers for people with intellectual disabilities to access healthcare services. To achieve this, online training was organized for healthcare professionals and students in Finland, Lithuania, Spain, and Greece. The participants took part in three modules of distance learning on the Moodle platform from March to June 2024.

Professional competencies related to communication with patients having intellectual disabilities were assessed using 30 closed-ended questions presented as statements. Respondents could choose from a Likert scale (1 strongly disagree, 2 disagree, 3 somewhat agree, 4 agree, 5 incorrect strongly agree). Statements assessing professional competencies were provided as correct and incorrect. A higher mean of correct statements indicated greater knowledge and a more favourable attitude towards patients with intellectual disabilities. Conversely, a lower mean score in incorrect statements indicated poorer knowledge and a more

negative attitude towards these patients. Healthcare professionals and students developed these competencies through a distance learning platform.

- Knowledge of the possible characteristics and needs of a patient with intellectual disabilities
- Communication features with a patient with intellectual disability.
- Managing the diversity of patients with intellectual disabilities.

To determine the effectiveness of the training, the learners involved in the project were provided with 10 questions per module (in correct and incorrect format). Healthcare professionals and students answered these questions before and during the training.

The study on the assessment of professional competencies involved healthcare professionals and students who participated in distance learning in the Moodle environment: 37 Spanish, 60 Lithuanian, 12 Greek, and 11 Finnish healthcare students studying in higher education institutions, 17 Finnish, 33 Spanish, 78 Lithuanian and 29 Greek healthcare professionals working in secondary and tertiary healthcare services.

Research methods:

- Structured survey in the Moodle environment.
- Descriptive and statistical analysis (percents, Student's t-test, Wilcoxon signed-rank test).

Average scores before and after the training were calculated using a two-way independent samples t-test. This resulted in statistically significant differences when $p \leq 0.05$.

Results

The training conducted as part of the project helped healthcare students and professionals enhance the necessary professional competencies for working with PWID. A survey of healthcare students, conducted before and after completing the first module "Knowledge about PWID possible characteristics and needs", revealed that, out of 10 statements, 5 showed higher averages after the training ($p \leq 0.05$). This indicates that students improved their understanding of PWID's potential characteristics and needs. Healthcare students gained more knowledge about PWID's IQ characteristics, the age of onset of intellectual disability, causes and co-occurring disorders, and the importance of the social environment, as emphasized by the social model. Thus, after completing the training, competencies related to knowledge about PWID's possible characteristics and needs improved by 50% ($p \leq 0.05$).

From 10.7% to 37.7% of students improved their competence in understanding the possible characteristics and needs of people with intellectual disabilities. Distance learning helped 37.7% of students understand that individuals have intellectual disabilities if their IQ is below 70, 18.8% became aware that intellectual disabilities manifest before the age of twenty-two, 24.9% learned that persons with intellectual disabilities are often born with motor disabilities, sensory processing dysfunction, and epilepsy, and 17.1% understood the social model explanation and focused on the powers and abilities of the person.

Table 1. Student acceptance of statements regarding knowledge about PWID characteristics and needs before and after training

Statements	Testing	N	% of agreement	% of improvement	Sig.
Individuals have Intellectual Disability if their IQ is below 70 (C)	Before training	120	30,5	**37,7**	**p≤0,05**
	After training	113	68,2		
Intellectual Disability manifests itself before the age of 22 (C)	Before training	120	31,6	**18,8**	**p≤0,05**
	After training	113	50,4		
Causes of Intellectual Disabilities can also be emotional abuse, family violence, and lack of educational opportunities (C)	Before training	120	71,6	**10,7**	**p≤0,05**
	After training	113	82,3		
Persons with Intellectual Disabilities are often born with motor disabilities, sensory processing dysfunction, and epilepsy (C)	Before training	120	46,7	**24,9**	**p≤0,05**
	After training	113	71,6		
Persons with Intellectual Disabilities do not differ from others in terms of health problems (I)	Before training	120	46,7	**23,7**	**p≤0,05**
	After training	113	23		
I will focus only on a disease, illness, injury, or health problem in working with Persons with Intellectual Disabilities (I)	Before training	120	30	2,6	p≥0,05
	After training	113	27,4		
The social model explains that I will focus on the powers and abilities of the person with intellectual Disabilities, and the resources of the surrounding environment (C)	Before training	120	62,5	**17,1**	**p≤0,05**
	After training	113	79,6		

C-correct; I-incorrect

The statements from the first module were answered more accurately after the training compared to before the training (p≤0.05). The remote training organized during the project in the Moodle environment helped healthcare professionals to better understand that healthcare for people who inject drugs (PWID) is still not well provided and that patients with intellectual disabilities have more health problems than those without such disabilities. Both healthcare professionals and students improved their understanding of the age at which intellectual disability typically manifests. Healthcare professionals gained more knowledge about the causes of intellectual disabilities, co-occurring conditions, and the importance of the social environment, which is emphasized by the social model (Table 2). Analyzing the research results of health care professionals before and after the training, it can be stated that even 70 per cent improved their competencies related to knowledge about the possible characteristics and needs of PWID after completing the training (p≤0.05).

Table 2. Health care professionals acceptance of statements reflecting competence „Knowledge about PWID possible characteristics and needs“ before and after training

Statements	Testing	N	% of agreement	% of improvement	Sig.
People with Intellectual Disabilities receive better healthcare (I)	Before training	83	44,5	12	**p≤0,05**
	After training	74	32,5		
People with Intellectual Disabilities cannot get married or have children (I)	Before training	83	34,9	5,1	p≥0,05
	After training	74	29,8		
Individuals have Intellectual Disability if their IQ is below 70 (C)	Before training	83	38,6	**34,4**	**p≤0,05**
	After training	74	73		
Intellectual Disability manifests itself before the age of 22 (C)	Before training	83	35	**19**	**p≤0,05**
	After training	74	54		
Causes of Intellectual Disabilities can also be emotional abuse, family violence, and lack of educational opportunities (C)	Before training	83	73,5	**6,2**	**p≤0,05**
	After training	74	79,7		
	Before training	83	49,3	**31,8**	**p≤0,05**

Persons with Intellectual Disabilities are often born with motor disabilities, sensory processing dysfunction, and epilepsy (C)	After training	74	81,1		
Persons with Intellectual Disabilities do not differ from others in terms of health problems (I)	Before training	83	53	**16,4**	**p≤0,05**
	After training	74	36,6		
The social model explains that I will focus on the powers and abilities of the person with intellectual Disabilities, and the resources of the surrounding environment (C)	Before training	83	79,4	**9,7**	**p≤0,05**
	After training	74	89,1		

C-correct; I-incorrect

The training helped healthcare professionals improve their understanding of the characteristics and needs of people with intellectual disabilities. It emphasized that individuals have an intellectual disability if their IQ is below 70. Additionally, it highlighted that people with intellectual disabilities are often born with motor disabilities, sensory processing dysfunction (31.8%), and epilepsy. It is important to note that intellectual disability typically manifests before the age of 22 (19%) and that individuals with intellectual disabilities may experience different health problems compared to others (16.4%).

When evaluating healthcare students' responses to questions related to communication with PWID, we found that upon completing the training, a higher average was observed when analysing 7 statements, of which 3 showed statistically significant differences (Table 3).

Table 3. Student acceptance of statements reflecting competence „Communication with PWID“ before and after training

Statements	**Testing**	**N**	**% of agreement**	**% of improvement**	**Sig.**
Non-verbal communication includes: body language, touch, and facial expressions (C)	Before training	113	90,3	0,5	p≥0,05
	After training	109	90,8		
Persons with Intellectual Disabilities may have no difficulty finding the right words to put them together into sentences (I)	Before training	113	15,1	1,3	p≥0,05
	After training	109	13,8		
Persons with Intellectual Disabilities have no difficulties in perceiving and interpreting spatial thinking, estimating the exact time (I)	Before training	113	35,4	1,4	p≥0,05
	After training	109	34		
It is essential to use short, everyday words, simple sentences in communicating with Persons with Intellectual Disabilities (C)	Before training	113	97,3	**1,7**	**p≤0,05**
	After training	109	99		
Use clear, simplified language when we communicate with persons with Intellectual Disabilities (C)	Before training	113	91,1	**1,5**	**p≤0,05**
	After training	109	92,6		
Supported Decision Making (SDM) is a process that allows people with disabilities to make their own decisions (C)	Before training	113	70,8	**17,2**	**p≤0,05**
	After training	109	88		
Medium-level support would include meals, entertainment, and clothing depend on simple decisions making (C)	Before training	113	50,4	13,8	p≥0,05
	After training	109	64,2		

C-correct; I-incorrect

In Table 3, statistically significant differences indicate that the implementation of distance learning during the project improved students' communication competence by 30 per cent. This conclusion is statistically significant (p≤0.05). More students agreed that it is essential to use short, everyday words, simple sentences, and clear, simplified language when communicating with people with intellectual disabilities (PWID). There was also an improved understanding of Supported Decision Making (SDM), which is particularly important when communicating with individuals with intellectual disabilities. Analyzing the research results of health care students before and after the training, it can be stated that communication competence improved by 30 per cent after the training (p≤0.05). The improvement in communication competence with PWID was not as significant compared to other competencies upon completion of the training. It can be assumed that students already possessed some knowledge beforehand. Particularly, the understanding that Supported Decision Making (SDM) is a process that allows people with disabilities to make their own decisions improved by 17.2% among students. Analyzing the responses of health care professionals to questions related to

communication with PWID competence, we found that after the training, a higher average was obtained for 7 statements, of which 4 showed statistically significant differences (Table 4).

Table 4. Health care professionals acceptance of statements reflecting competence „Communication with PWID“ before and after training

Statements	**Testing**	**% of agreement**	**% of improvement**	**N**	**Sig.**
Persons with very severe or profound intellectual disabilities will be able to understand pictures, photographs (C)	Before training	40,2	5,6	72	p≥0,05
	After training	45,8		72	
Persons with Intellectual Disabilities may have no difficulty finding the right words to put them together into sentences (I)	Before training	41	4,8	73	p≥0,05
	After training	36,2		72	
Persons with Intellectual Disabilities have no difficulties in perceiving and interpreting spatial thinking, estimating the exact time (I)	Before training	30,1	**14,8**	73	**p≤0,05**
	After training	15,3		72	
It is essential to use short, everyday words, simple sentences in communicating with Persons with Intellectual Disabilities (C)	Before training	49,3	**22,9**	73	**p≤0,05**
	After training	72,2		72	
Augmentative and Alternative Communication (AAC) cannot help persons with Intellectual Disabilities express their wishes and thoughts (C)	Before training	53,4	**3,5**	73	p≥0,05
	After training	56,9		72	
Use clear, simplified language when we communicate with persons with Intellectual Disabilities (C)	Before training	97,3	**2,7**	73	**p≤0,05**
	After training	100		72	
Supported Decision Making (SDM) is a process that allows people with disabilities to make their own decisions (C)	Before training	82,2	**10,8**	73	**p≤0,05**
	After training	93		72	

C-correct; I-incorrect

In Table 4, statistically significant differences highlight that the implementation of distance learning during the project improved the communication competence of healthcare professionals by 40 per cent ($p \leq 0.05$). The training helped health professionals understand that individuals with intellectual disabilities have difficulty perceiving and interpreting spatial thinking, estimating time accurately, and benefit from the use of short, everyday words, simple sentences, and clear language. Additionally, there was an improved understanding of Supported Decision Making (SDM), which is particularly important when communicating with individuals with intellectual disabilities. Comparing the research results of health care professionals before and after the training, it can be stated that there was a 40 per cent improvement in communication competence after the training ($p \leq 0.05$). Communication competence with individuals with intellectual disabilities improved from 2.7% to 22.9%. The project's training helped to understand that it is essential to use short and simple sentences when communicating with individuals with intellectual disabilities (22.9%) and that they have difficulties in perceiving and interpreting spatial thinking, estimating time accurately (14.8%), and that Supported Decision Making (SDM) allows individuals with intellectual disabilities to make their own decisions (10.8%).

Table 5. Student acceptance of statements reflecting competence „Knowledge about diversity management“ before and after training

Statements	Testing	% of agreement	% of improvement	N	Sig.
Family care focuses only on the person with an intellectual disability, excluding the family (I)	Before training	26,1	**17**	111	**p≤0,05**
	After training	9,1		99	
A Health passport is a document that enables persons with Intellectual Disabilities to possess and carry in written form information (C)	Before training	70,2	**20,7**	111	**p≤0,05**
	After training	90,9		99	
Consultation -Liaison Psychiatry offers consultation services to referrals from other medical specialties when they encounter a patient with mental health, psychosomatic or behavioural issues/symptoms (C)	Before training	62,1	**21,8**	111	**p≤0,05**
	After training	83,9		99	
Free and informed consent is a non -interactional procedure -not a one-off event- that takes place at a specific time and place (I)	Before training	90,1	**13,3**	111	**p≤0,05**
	After training	76,8		99	
Free and informed consent in a healthcare setting is highly interrelated with aspects vital for the overall well-being of the individuals, including their autonomy, self-determination, dignity, and inclusion (C)	Before training	77,4	**8,4**	111	**p≤0,05**
	After training	85,8		99	
Usually it doesn’t need to speak directly to the patient with Intellectual Disabilities instead it is better to focus more on the caregiver (I)	Before training	24,3	**16,3**	111	**p≤0,05**
	After training	8		99	
Accessible information about the prescribed medication can be provided through sign language, Easy to Read leaflets/brochures, pictures, diagrams, and/or videos that are available on online platforms (C)	Before training	83,8	6,1	111	p≥0,05
	After training	89,9		99	
All information about the patient with Intellectual Disability should be collected in the pre-admission phase and disseminated along the multidisciplinary team (C)	Before training	61,2	**14,5**	111	**p≤0,05**
	After training	75,7		99	
Patients with Intellectual Disabilities don’t have coexisting physical health problems and don’t suffer more often from postoperative complications when undergoing surgery (I)	Before training	56,7	**26,4**	111	**p≤0,05**
	After training	30,3		99	

C-correct; I-incorrect

In Table 5, it is evident that the participation of healthcare students in the project-organized Moodle training sessions led to an improvement in competencies related to knowledge about diversity management. The responses of the students in this module to the questions posed were among the best of all three modules. After the training, 9 out of 10 questions were answered more accurately, with statistically significant differences observed in 7 questions ($p \leq 0.05$). The training helped students understand that when communicating with a patient with intellectual disabilities, they need to focus not only on the patient's family but also on the patient themselves. The training also helped students better understand the benefits of a health passport document, the peculiarities of consultations, the importance of free and informed consent, and the significance of a multidisciplinary team. Comparing the research results of health care students before and after the training, it can be stated that there was a 70% improvement in knowledge about diversity management after the training ($p \leq 0.05$). Nearly a quarter of the healthcare students participating in the project training realised that people who inject drugs (PWID) have coexisting physical health problems and are more prone to postoperative complications (26.4%). Additionally, students who participated in the project training improved their knowledge related to health passport (20.7%), Liaison Psychiatry services consultation (21.8%), and the importance of focusing on the family in addition to the care of PWID (17%). Furthermore, one in ten healthcare professionals improved their knowledge about free and informed consent forms (13.3%).

Table 6. Health care professionals acceptance of statements reflecting competence „Knowledge about diversity management“ before and after training

Statements	Testing	N	% of agreement	% of improvement	Sig.
Family care focuses only on the person with an intellectual disability, excluding the family (I)	Before training	72	62,5	**43,9**	**p≤0,05**
	After training	70	18,6		
A Health passport is a document that enables persons with Intellectual Disabilities to possess and carry in written form information (C)	Before training	72	76,4	**15**	**p≤0,05**
	After training	70	91,4		
Consultation -Liaison Psychiatry offers consultation services to referrals from other medical specialties when they encounter a patient with mental health, psychosomatic or behavioural issues/symptoms (C)	Before training	72	72,9	**12,8**	p≥0,05
	After training	70	85,7		
Free and informed consent in a healthcare setting is highly interrelated with aspects vital for the overall well-being of the individuals, including their autonomy, self-determination, dignity, and inclusion (C)	Before training	72	77,7	9,5	p≥0,05
	After training	70	87,2		
Usually it doesn't need to speak directly to the patient with Intellectual Disabilities instead it is better to focus more on the caregiver (I)	Before training	72	58,3	**44**	**p≤0,05**
	After training	70	14,3		
Accessible information about the prescribed medication can be provided through sign language, Easy to Read leaflets/brochures, pictures, diagrams, and/or videos that are available on online platforms (C)	Before training	72	82	9,4	p≥0,05
	After training	70	91,4		
All information about the patient with Intellectual Disability should be collected in the pre-admission phase and disseminated along the multidisciplinary team (C)	Before training	72	66,7	7,6	p≥0,05
	After training	70	74,3		
Patients with Intellectual Disabilities don't have coexisting physical health problems and don't suffer more often from postoperative complications when undergoing surgery (I)	Before training	72	59,7	**34**	**p≤0,05**
	After training	70	25,7		

C-correct; I-incorrect

Training helped health care professionals understand that when communicating with a patient with intellectual disabilities, they need to focus not only on the patient's family, but also on the patient themselves, the benefits of a health passport document, the nuances of consultations, the importance of obtaining informed consent, and the significance of a multidisciplinary team, as well as the presence of coexisting physical health problems. Comparing the results of the research before and after the training, it can be stated that 40% improved their knowledge about diversity management after the training ($p \leq 0.05$). From 7.6% to 43.9%, healthcare professionals improved their knowledge about diversity management competence. 43.9% of health care staff enhanced their understanding that family care should be oriented not only toward people with intellectual disabilities (PWID) but also toward family care. Thus, almost half of healthcare professionals believe that it is better to focus more on the caregiver (44%) than to speak directly to the patient with Intellectual Disabilities. A third (34%) improved their understanding that PWID have coexisting physical health problems and are more susceptible to postoperative complications.

Conclusions

1. Healthcare students improved their competence about the possible characteristics and needs of people with intellectual disabilities. The online training also enhanced the knowledge of healthcare professionals about the possible characteristics and needs of people with intellectual disabilities.

2. Comparing the knowledge of healthcare students about communicating with people with intellectual disabilities before and after training showed less significant differences. Therefore, it can be assumed that this

topic is more familiar to healthcare students. However, there was a greater improvement in communication competence among healthcare staff after the training compared to the group of healthcare students.

3. Healthcare students and staff improved their competence about diversity management of people with intellectual disabilities.

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