

Are Vocational School Of Health Services Students Ready For Interprofessional Education?

Meslek Yüksek Okulu Öğrencileri Mesleklerarası Eğitime Hazır mı?

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Özet

Amaç: Meslekler arası eğitim (IPE); tıp, sağlık ve sosyal hizmet alanları içerisinde iki veya daha fazla meslekten öğrenenin, iş birliğini ve hizmet niteliğini arttırmak amacıyla, birbirleri hakkında ve birbirlerinden öğrenme sürecidir. IPE ile bütüncül bir bakım anlayışı, sağlık ve sosyal hizmet çalışmalarının birbirleriyle koordine ve çözüm odaklı çalışmaları, daha esnek çalışma standartlarının belirlenmesi hedeflenmektedir. IPE dünyada çeşitli sağlık meslekleri eğitimi müfredatında yer almaktadır.

Ülkemizde Sağlık Hizmetleri Meslek Yüksekokullarında bu konuda eğitim programlarının geliştirilmesine ihtiyaç vardır. Bir eğitim programının başarılı olabilmesi için öğretim üyeleri, öğrenciler ve eğitim yöneticileri tarafından kabul edilmesi kritiktir. Bu nedenle meslekler arası eğitim konusunda program geliştirme aşamasında öğrencilerin hazırbulunuşluğu incelenmelidir. Bu çalışmanın amacı, Sağlık Hizmetleri Meslek Yüksekokulu öğrencilerinin meslekler arası eğitime hazır olup olmadıklarının belirlenmesidir.

Gereç ve Yöntem: Çalışma kesitsel olarak tasarlanmış ve Türkiye'deki dört Sağlık Hizmetleri Meslek Yüksekokulu'nda yürütülmüştür. Uygun örnekleme yöntemi kullanılan araştırmada ölçme aracı olarak Parsell and Bligh (1999) tarafından geliştirilen Meslekler arası Eğitime Hazırbulunuşluk Ölçeği (RIPLS) kullanılmıştır. Veri analizinde tanımlayıcı istatistikler ve Student t-testi uygulanmıştır.

Anahtar sözcükler:

Eğitim, meslekler arası eğitim, işbirliği, meslekler arası öğrenme, hazırbulunuşluk.

Keywords:

Education, Interprofessional Education, collaborative, interprofessional learning, readiness.

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Bulgular: Çalışmaya 724 (%68,6) öğrenci katılmıştır. RIPLS için ortalama toplam puan 70.8 ± 10.6 (min.19-maks.95) bulunmuştur. Alt ölçekler 1-2-3 için ortalama puanlar sırasıyla 35.9 ± 6.4 (min.9-maks.45); 25.1 ± 4.6 (min.21-max.35); ve 9.7 ± 2.6 (min.3- maks.15). Cinsiyet, eğitim yılı, memnuniyet ve başarı algısına göre ortalama toplam puanlar arasında anlamlı farklar bulunmuştur. Kız öğrenciler, birinci sınıf öğrencileri, yüksek memnuniyet bildiren öğrenciler ve başarı algısı iyi olan öğrenciler, ortalamalarına göre anlamlı olarak daha yüksek toplam puanlar almıştır.

Sonuç: Ölçek puanlarına bakıldığında, Sağlık Hizmetleri Meslek Yüksekokulu öğrencilerimizin meslekler arası eğitim için hazır oldukları görülmektedir. Önümüzdeki dönemde konu ile ilgili bir eğitim programı planlanmaktadır.

Abstract

Background :Interprofessional education (IPE) is the process of learning about and from each other in order to improve the quality of health care and collaboration of two or more health profession in the fields of medicine, health, and social services. The aim of IPE is to provide a holistic approach to care, to coordinate and solution-oriented activities and to set more flexible working standards. IPE is present in various health professions' curriculum in the world. There is a need for development of educational programs on this subject in Vocational School of Health Services in our country. In order for a successful program, it is critical that it is accepted by faculty, students, and educational managers. For this reason, the readiness of the students should be examined during the program development stage in IPE. The aim of this study was to determine the readiness of Vocational School of Health Services' students for IPE.

Methods: The study is in cross-sectional design. Students were selected by convenience sampling method. The data were collected at four Vocational Schools of Health Services in Turkey using the Readiness for Interprofessional Learning Scale (RIPLS) developed by Parsell and Bligh (1999).

Descriptive statistics and Student's t-tests were used in data analysis.

Results: *The number of the students participating in the study was 724 (%68,6). The mean total score for the RIPLS was 70.8 ± 10.6 (min.19-max.95). The mean scores for the subscales 1-2-3 were respectively 35.9 ± 6.4 (min.9-max.45); 25.1 ± 4.6 (min.21-max.35); and 9.7 ± 2.6 (min.3- max.15). There were significant differences between the mean total scores according to gender, year of study, satisfaction with their departments, and perception of success. Female students, first-year students, students who reported high satisfaction, and those whose perception of success was good obtained significantly higher mean total scores than their counterparts.*

Conclusion: *As a result of the study, it was found that Vocational School of Health Services students were ready for IPE. It is planned to design training programs on the subject.*

Introduction

Social and cultural developments as well as advances in technology have led to increased complexity in health and social care. This complexity has changed the interaction between the trio of patient-doctor-health professionals both in our country and the world. This necessitates a holistic approach to health and social services and the coordinated and solution-oriented work of health and social care sciences workers [1-4]. Health and social services workers who work together actually are shaped by differing values, points of view, and experiences. Cooperation between health professionals are employees from different occupations working with patients, caregivers, and the society to provide high-quality health care [5-7]. Interprofessional education (IPE) is thought to constitute a solution to the differences and prejudices concerning the quality of the work done by health professionals [1, 8]. Interprofessional education is learners from two

or more health professional students learning about and from each other together in order to improve the quality of the health care and collaboration [1, 7, 9].

IPE contributes to the recognition of different disciplines, improvement of problem-solving skills, understanding of professional values, awareness, and the ability to meet the needs of the society the students live in [10]. The curriculum of IPE should include these topics [1, 11, 12].

The World Health Organization (WHO) has aimed for every expert working in health and social service institutions to be trained according to the principles of IPE and has thus suggested that IPE should be included in the curricula of universities [13]. Actually, when applications across the world are examined, it can be seen that IPE is already included in the curricula of certain universities [2, 7, 9, 11, 14]. For example, the University of Auckland Schools of Medicine and Health Sciences have changed their curricula to include IPE for medicine, pharmacy, and nursing students [1]. IPE was started to be applied in universities across the UK and Japan in 2000 as a training strategy, and with the aim of decreasing the present hierarchical pressure between professions, IPE took its place in graduate, undergraduate, and vocational school levels [14, 15]. Today, in the foremost schools of the world, IPE has been included in health and social services curricula and is given as mandatory courses in the undergraduate and graduate training of the fields of medicine, health sciences, and social services [3, 4, 8, 14, 16]. Also, IPE outcomes are included accreditation standards in medical education programs in Turkey and other many countries [17, 18]. Additionally, undergraduate program development efforts are underway to increase the skills and awareness of health and social

services students by giving basic courses within the context of the IPE program, with some universities having ongoing training programs [19-21]. In Turkey, Vocational Schools of Health Services train technicians to serve in the field of health services through a two-year vocational program. Candidates who are successful in the University Transition Exam can prefer Vocational Schools. The two-year vocational training included theoretical and applied for courses. In Turkey, as of the year 2017, there are 43 different programs tied to 125 Vocational Schools of Health Services [22]. However, it can be seen that in vocational schools, which provide vocational training and raise many professionals in the field of health and social services, this topic is not sufficiently stressed yet [3].

IPE programs need to be formed and applied. For a training program to succeed, it is essential for it to be accepted by tutors, students, and managers. Especially when IPE activities are being included in the education program, this must be taken into consideration [1, 2, 12]. According to Gilbert (2005), the collaborative aspect of IPE may become stuck in top-down management approaches [23]. IPE being translated into action efficiently is only possible with a collaborative and inclusive approach [2, 7]. For this reason, when initiating program development efforts, the readiness of students for IPE should be determined [1]. Readiness is being ready to exhibit a specific type of behavior because of a specific maturation and learning process [5]. Readiness for IPE depends on the level of desire students have for teamwork and learning with the team, and it defines students' willingness, professional identity development, and understanding roles and responsibilities related to the professional culture [5, 7].

Methods

The study is in cross-sectional design. Students were selected by convenience sampling method.

Data collection: The data were collected with the Readiness for Interprofessional Learning Scale (RIPLS) developed by Parsell and Bligh (1999). The scale includes (19 items) three subscales: 1. teamwork and collaboration, 2. professional identity, 3. roles and responsibility. Three of these items (# 10, # 11, # 12) are reverse scored. Each item was measured using a 5-point Likert scale (5). The scale is scored such that lower scores denote higher levels of readiness. The total score ranges from 19 and 95. The reliability (Cronbach's alpha) of the scale was found to be 0.845 revealing an acceptable internal consistency.

The instrument was handed out to students in the survey in June 2015. Self-administered questionnaire technique was used in this study.

Data analysis: In the study, descriptive statistics and Student's t-test were used. Data analyses

were performed with IBM SPSS Statistics, version 25 (IBM Armork, New York, USA).

Results

The response rate is 68.6% (n= 724). The majority of the students were female (75.7%). 70.6% of the students were satisfied with their departments. 80.2 % of students perceive themselves academically successful. 18.2% of the students indicated that they had a family member who was, or still is, working as a healthcare professional.

The mean total score for the RIPLS was 70.5 ± 10.9 (min: 27.0-max: 94.0). The mean score for teamwork and collaboration was 35.7 ± 6.5 (min: 9.0-max: 45.0); the mean score for Professional identity was 25.0 ± 4.7 (min: 7.0-max: 35.0); and the mean score for Roles and responsibility was 9.8 ± 2.6 (min: 3.0-max: 15.0).

Mean scores for each item on the RIPLS were presented in Figure 1.

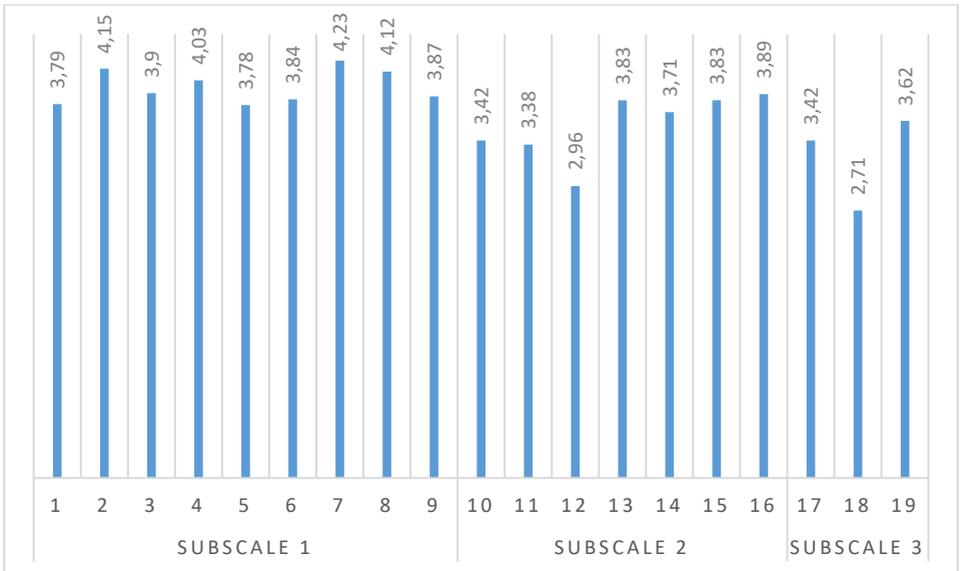


Figure 1. RIPLS items and mean scores

When the mean RIPLS subscale scores of the students were examined, the mean scores for the teamwork and collaboration, professional identity subscales were found to be higher compared to the mean scores of the roles and responsibilities subscale. Among the items of the RIPLS, item 7 in the teamwork and collaboration subscale "For small group learning to work, students need to trust and respect each other" was found to have the highest

mean score (4.23 ± 0.97), item 18 in the roles and responsibilities subscale "I'm not sure what my professional role will be" had the lowest mean score (2.71 ± 1.39).

The mean scores from RIPLS and subscales were compared in terms of age, gender, satisfaction from the department and perception of academic success. Findings are presented in Table 1.

Table 1. The Mean scores for RIPLS and subscales in terms of some variables

		RIPLS		Teamwork and collaboration		Professional identity		Roles and responsibility	
		Mean± SD	t/F (p)	Mean± SD	t/F (p)	Mean± SD	t/F (p)	Mean± SD	t/F (p)
Gender	Female	71.04± 10.38	2.39 (0.01)	36.05± 6.21	2.52 (0.01)	25.33± 4.64	2.96 (0.00)	9.65± 2.61	1.71 (0.08)
	Male	68.83± 12.00		34.65± 7.32		24.14± 4.80		10.03± 2.70	
Year	First	71.41± 11.02	2.42 (0.01)	36.22± 6.62	2.25 (0.01)	25.43± 4.76	2.38 (0.01)	9.76± 2.61	0.12 (0.90)
	Second	69.46± 10.58		35.12± 6.40		24.59± 4.61		9.73± 2.66	
Satisfaction	Yes	71.19± 10.10	2.63 (0.00)	36.01± 6.24	1.95 (0.05)	25.35± 4.53	2.75 (0.00)	9.81± 2.57	1.06 (0.28)
	No	68.89± 12.26		34.98± 7.13		24.31± 5.01		9.59± 2.77	
Perception of success	Poor	67.59± 11.45	3.58 (0.00)	33.93± 6.93	3.65 (0.00)	23.93± 4.69	3.13 (0.00)	9.72± 2.81	0.11 (0.90)
	Good	71.20± 10.59		36.13± 6.36		25.30± 4.64		9.75± 2.59	

There were significant differences between the mean total scores according to gender, year of study, satisfaction, and perception of success. Female students, first-year students, students who reported to have high satisfaction and those whose perception of success was good obtained significantly higher mean total scores than others.

There were significant differences between the mean total scores obtained from the teamwork and collaboration subscale according to gender, year of study, and perception of success. Females, first-year students and those whose perception of success was good obtained higher

scores: (36.05 ± 6.21); (36.01 ± 6.24) and (36.13 ± 6.36) respectively.

There were significant differences between the mean total scores obtained from the professional identity subscale concerning gender, year of study, satisfaction, and perception of success. Of the students, females (25.33 ± 4.64), first-year students (25.43 ± 4.76), students who reported high levels of satisfaction (25.35 ± 4.53), and those having a good perception of success (25.30 ± 4.64) obtained higher scores.

There were no significant differences between the mean total scores obtained from the roles and responsibility subscale concerning gender, year of study, satisfaction, and perception of success.

No statistically significant difference was found in RIPLS or its subscales according to whether the students had a health professional in their family.

Discussion

In this study, the level of readiness among students studying at the Vocational School of Health Services at four universities was examined. Study findings indicated that most of the students were female. The students participating in the study reported that they were satisfied with the program they studied, and they had high perceptions of academically success. According to the findings of our study, the mean RIPLS score was found to be close to the maximum that can be attained. This finding shows that the students were ready for IPE. It is pleasant to discover that students were willing to and ready for learning together during their training. However, there were no previous studies conducted with similar samples such as those students (audiometry, medical laboratory technicians, medical documentation and secretary, emergency care, anesthesia, medical imaging technician). Mahler et al. (2018) examined the opinions of bachelor students regarding interprofessional education and determined that interprofessional learning was beneficial and helped students understand other disciplines [24]. On the other hand, investigation of IPE in the Vocational School of Health Services, which constitute a significant component of health care services, is necessary but seems to be a neglected topic in the literature. In the literature, numerous studies on IPE related to medicine, dentistry, nursing, midwifery, and physiotherapy education were conducted. The findings of the current study were in line with the results of these studies. For instance, Horsburgh et al. (2001) who recruited first-year medicine,

pharmaceutics, and nursing students in New Zeland (n=180), reported that the students were ready for IPE [1]. Similarly, in a study by Ahmad et al. (2013) which was conducted with medicine, nursing, pharmaceutics, and dentistry students in Singapore (n=555), high RIPLS scores were obtained [4]. Reid et al. (2006) have come to similar conclusions in a study where they studied the readiness of health professionals for IPE with post-graduation doctors, nurses, and pharmacists [11].

The teamwork and collaboration, and professional identity mean subscale scores of the students were found to be close to the maximum attainable mean score. This finding shows that the students were ready for teamwork and collaboration and that their level of awareness regarding their professional identities was high. With regard to being close to the maximum, the roles and responsibility subscale mean scores of the students were lower than the other two subscale mean scores. At the same time, Item 18 "I am not sure what my professional role will be" in the roles, and responsibility subscale has the lowest mean score in the study. The WHO defines roles and responsibilities in IPE goals as "understanding the roles, responsibilities, and expertise of themselves and other health professionals." This subscale taking a smaller value in our study may stem from the fact that the professional role perception of the students had not been developed yet. This finding is also concurrent with previous studies [3, 16].

The sample of the current study consisted of members who will obtain the title of technician after graduation and who will work at various steps of healthcare services. It is pleasant to know that the students were inclined to teamwork and collaboration while learning together and that they adopted their future professional identities. This can be taken as a

warrant regarding the quality of work the students will pursue in the future. The relatively low scores obtained from the "Roles and responsibility" subscale may be explained by the lack of experience, lack of education, lack of opportunity to learn at work, different self-efficacy perception, etc. In this context, students' hesitations may be eliminated by sharing their shortcomings with each other during educational activities. Throughout the training program, learning together with other team members would be beneficial regarding identifying responsibilities and limitations. In a study by Schwarzbeck et.al. (2019), challenges were reported to be different needs, time constraints due to diverse curricula, differences in prior knowledge [26].

In our study, the RIPLS total and subscale scores of females, first-year students, students satisfied with the program they are included in, and those with high success perception were found to be higher. In a review by Visser et al. (2017) which examined 65 articles on IPE, it was found that the readiness of females and those of younger age were found to be higher [7]. The high readiness of first-year students has also been documented in studies by Horsburgh et al. (2001), Reid et al. (2006) and Visser et al. (2017) [1, 7, 11]. This may be explained by lack of opportunity to learn at work, different self-efficacy perception also.

In our study, no difference in readiness for IPE was found among students who had health care professionals in the family and students who did not have such a family member. However, in their review, Visser et al. (2017) reported that students with healthcare professionals in their families were prejudiced against universal essential education programs and held stereotypical opinions against other healthcare professionals [7].

Conclusion

Interprofessional education has provided a basis for synthesizing the knowledge required by professionalism in a single branch with interprofessional principles, the acknowledgment of these principles by health and social services professionals, and the integration of such knowledge under a single article. As stressed by the WHO, it is essential for future generations (health and social workforce) to develop services with a collaborative approach [13].

As a result of the study, it is found that Vocational School of Health Services' students were ready for IPE. It is planned to implement IPE during the next training semester for schools that were included in the study.

Ethical considerations

This study was approved by the ethics committee of the Izmir University of Economics (number B.30.2.UIE.0.05.05-020-030). All participants gave written informed consent. Volunteering students participated in the study.

Limitations

The lack of similar studies performed with students of other vocational schools and the lack of comparison with other occupational groups may constitute limitations for the study.

Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the writing and content of the paper.

References

1. Horsburgh M, Lamdin R, Williamson E. Multiprofessional learning: the attitudes of medical, nursing and pharmacy students to shared learning. *Medical Education*. 2001; 35:876-883.
2. Hammick M, Olckers L, Campion-Smith C. Learning in interprofessional teams: AMEE Guide no. 38. *Medical Teacher*. 2009; 31:1-12.

3. Domac S, Anderson E. Is this the right time to join Turkey to the European interprofessional education community? *Journal of Interprofessional Care*. 2012; 26:83-84.
4. Ahmad MI, Wai-chi Chan S, Wong L, Tan ML, Liaw SY. Are first-year healthcare undergraduates at an Asian university ready for interprofessional education? *Journal of Interprofessional Care*. 2013; 27:341-343.
5. Parsell G, Bligh J. The development of a questionnaire to assess the readiness of healthcare students for interprofessional learning (RIPLS). *Medical Education*. 1999; 33:95-100.
6. Domac S, Fidan MB, Sobacı F, Yıldırım A, Soydaş P, Özkent T. The importance of amalgamating interprofessional education to the higher education curriculum in Turkey. *Journal of Higher Education*. 2014;4(1):9-13.
7. Visser Cora LF, Ket Johannes CF, Gerda C, Kuruskar RA. Perceptions of residents, medical and nursing students about Interprofessional education: a systematic review of the quantitative and qualitative literature. *BMC Medical Education*. 2017; 17:77.
8. Reeves S, Fletcher S, Barr H, Birch I, Boet S, Davies N, McFadyen A, Rivera J, Kitto S. A BEME systematic review of the effects of interprofessional education: BEME Guide No. 39. *Medical Teacher*. 2017; 38,7:656-668.
9. CAIPE. *Interprofessional Education- A definition*. London: Centre for the Advancement of Interprofessional Education; 1997.
10. Barr H. New NHS, new collaboration, new agenda for education. *Journal of Interprofessional Care*. 2000;14, 81-86.
11. Reid R, Bruce D, Allstaff K, McLernon D. Validating the Readiness for Interprofessional Learning Scale (RIPLS) in the postgraduate context: are health care professionals ready for IPL? *Medical Education*. 2006; 40:415-422.
12. Mellor R, Cottrell N, Moran M. Just working in a team was a great experience..."-Student perspectives on the learning experiences of an interprofessional education program. *Journal of Interprofessional Care*. 2013; 27:292-297.
13. World Health Organization. *Framework for action on interprofessional education and collaborative practice*. Geneva: Department of Human Resources for Health.WHO Press, World Health Organization; 2010.
14. Maeno T, Takayashiki A, Anme T, Tohno E, Hara A. Japanese students' perception of their learning from an interprofessional education program: a qualitative study. *International Journal of Medical Education*. 2013; 4:9-17.
15. CIPW. *Creating an interprofessional workforce: An education and training framework for health and social care in England*. In: Hughes L, (Ed). Department of Health Project. 2007. CAIPE. Retrieved from <http://www.cipw.org.uk> was available on 12.01.2011.
16. Lauffs M, Ponzer S, Saboonchi F, Lonka K, Hylin U, Mattiasson A. Cross-cultural adaptation of the Swedish version of Readiness for Interprofessional Learning Scale (RIPLS). *Medical Teacher*. 2008; 42:405-411.
17. Dent J, Harden R M, & Hunt D. *A practical guide for medical teachers*. Elsevier Health Sciences; 2017.
18. National Undergraduate Medical Education Core Curriculum, Turkey (NUMECC). (2014). Retrieved from http://www.yok.gov.tr/documents/10279/27821052/tip_fakultesi_cekirdek_egitim_mufredati.pdf. Access on 25.01.2018.

19. Sayek I, editor. A. Handbook of Medical Teachers. Ankara: Gunes Tip Press; 2015.
20. Matsui, Y. Current Practices of Inter-professional Education at University of East Anglia, UK—Its implication to the A University—. Niigata journal of health and welfare, 2010; 10(1), 65-72.
21. Levine CB, Ansar M, Dimet A, et al. Student Evaluation of Interprofessional Experiences between Medical and Graduate Biomedical Students. J Res Interprof Pract Educ. 2019;9(1):10.22230/jripe.2019v9n1a274.
22. Student Selection and Placement Center (OSYM) preference guide, 2017.
23. Gilbert H.V.J. Interprofessional learning and higher education structural barriers. Journal of Interprofessional Care. 2005; 19(Suppl 1), 87-106.
24. Ergonul E, Baskurt F, Yilmaz ND, Baskurt Z, Asci H, Koc S, & Temel UB. Reliability and validity of the readiness for interprofessional learning scale (RIPLS) in Turkish speaking health care students. Acta medica mediterranea. 2018;34(3): 797-803.
25. Mahler C, Schwarzbeck V, Mink J, Goetz K. Students' perception of interprofessional education in the bachelor programme "Interprofessional Health Care" in Heidelberg, Germany: an exploratory case. BMC Medical Education. 2018;18:19.
26. Schwarzbeck V, Hundertmark J, Wipfler K, Mahler C, Frankenhauser S, Schultz JH. Suggestions for interprofessional educational courses from a students' perspective- a qualitative study. GMS Journal for Medical Education. 2019;36(1):1-13.