

## DETERMINATION OF PHARMACISTS' OPINION ABOUT THE COLLEGIAL SOLIDARITY

### MESLEKTAŞ DAYANIŞMASI KONUSUNDA ECZACILARIN GÖRÜŞLERİNİN BELİRLENMESİ

Bilge Sözen Şahne<sup>1</sup>, Elif Ulutaş Deniz<sup>2</sup>, Onur Kabaş<sup>3</sup>, Nilay Tarhan<sup>4</sup>, Miray Arslan<sup>5</sup>, Özlem Akbal Dağistan<sup>6</sup>

<sup>1</sup>Hacettepe University Faculty of Pharmacy, Department of Pharmacy Management, Ankara

<sup>2</sup>Atatürk University Faculty of Pharmacy, Department of Pharmacy Management, Erzurum

<sup>3</sup>Yumuk Pharmacy, Gerze-Sinop

<sup>4</sup>İzmir Katip Çelebi University Faculty of Pharmacy, Department of Pharmacy Management, İzmir

<sup>5</sup> Van Yüzüncü Yıl University Faculty of Pharmacy, Department of Pharmacy Management, Van

<sup>6</sup>İstanbul University Faculty of Pharmacy, Department of Pharmaceutical Technology, İstanbul

#### Corresponding Author Information

Bilge Sözen Şahne

bilge.sozen@hacettepe.edu.tr

+90 312 305 42 26

<https://orcid.org/0000-0003-0746-8303>

13.02.2021

19.03.2021

#### ABSTRACT

**INTRODUCTION:** Colleague solidarity, which emphasizes trust, independent thinking skills, and sharing, enables the problems encountered in health service delivery to be dealt with effectively. This study aims to reveal the current situation regarding colleague solidarity among pharmacists, which is also included in Turkey's pharmacy legislation.

**METHODS:** In this study, the questionnaire technique was used as it includes the "Colleague solidarity scale among nurses" developed by Uslusoy and Alpay (2013). The scale contains 23 items prepared by a five-point Likert type scale. Besides, there are three demographic questions and six questions to get information from participants related to collegial solidarity.

**RESULTS:** As a result of exploratory factor analysis (Kaiser-Meyer-Olkin (KMO) = 0.837), three factors explained 51.029 % of the total variance. In accordance with the t-test, there is a significant difference between gender groups only in the NOS (Negative opinions about solidarity) factor (p=0.000). Females displayed more negative thoughts about solidarity. According to ANOVA, there is a significant difference in the AS (Academic solidarity) factor (p=0.007) between the participants work in community pharmacies and universities. Pharmacists working in universities have higher means in AS factor. Besides, working year made significant differences in the ES (Emotional solidarity) factor (p=0.000) and the NOS factor (p=0.002). Additionally, it was found out that the average responses in all factors of the participants who think that they support their colleagues in need and solidarity with their

colleagues increased during the COVID-19 pandemic period are statistically significantly higher ( $p < 0.05$ ).

**DISCUSSION AND CONCLUSION:** According to the study results, colleague solidarity among pharmacists should be addressed more intensely as an element specified in legislation and education processes. It is necessary to determine the level of colleague solidarity and improve it by applying this scale for different pharmacy practice areas.

**Keywords:** colleague, solidarity, pharmacist, communication, health services

**İngilizce Kısa Başlık:** Collegial Solidarity among Pharmacists

**ÖZ**

**GİRİŞ ve AMAÇ:** Güven, bağımsız düşünme becerileri ve paylaşmayı ön plana çıkaran meslektaş dayanışmasının sağlık hizmet sunumunda karşılaşılan sorunların etkin bir şekilde ele alınmasını sağladığı belirtilmektedir. Bu çalışmanın amacı, Türkiye’de eczacılık mevzuatında da yer alan eczacılar arası meslektaş dayanışmasına ilişkin mevcut durumu ortaya çıkarmaktır.

**YÖNTEM ve GEREÇLER:** Bu çalışmada veri toplamak için anket tekniği kullanılmıştır. Anket, Uslusoy ve Alpay (2013) tarafından geliştirilen “Hemşirelerde Meslektaş Dayanışması Ölçeği”ni içermektedir. Ölçek, beşli Likert tipi ölçekle hazırlanan 23 maddeden oluşmaktadır. Ayrıca ankette meslektaş dayanışması ile ilgili katılımcılardan bilgi almak için üç demografik soru ve altı soru bulunmaktadır.

**BULGULAR:** Açımlayıcı faktör analizi sonucunda (Kaiser-Meyer-Olkin (KMO)= 0.837) elde edilen üç faktör, toplam varyansın %51.029’ünü açıklamıştır. Yapılan t-testi’ne göre cinsiyet grupları arasında sadece DİOD (dayanışma ile ilgili olumsuz düşünceler) faktöründe anlamlı bir fark vardır ( $p = 0.000$ ). Kadınların dayanışma konusunda daha olumsuz düşüncelere sahip olduğu belirlenmiştir. Üniversitelerde çalışan eczacıların AD (akademik dayanışma) faktöründe ortalamaları daha yüksektir. Ayrıca, çalışma yılı DD (duygusal dayanışma) faktörü ( $p = 0.000$ ) ve DİOD faktörü ( $p = 0.002$ ) açısından anlamlı farklılıklar göstermiştir. Ayrıca COVID-19 pandemisinde kendilerine ihtiyaç duyan meslektaşlarını desteklediklerini ve meslektaşları ile dayanışmayı sağladıklarını düşünen katılımcıların tüm faktörlerdeki ortalama yanıtlarının istatistiksel olarak anlamlı derecede yüksek olduğu bulunmuştur ( $p < 0.05$ ).

**TARTIŞMA ve SONUÇ:** Bu çalışmanın sonuçlarına göre, eczacılar arası meslektaş dayanışması mevzuatta ve eğitim süreçlerinde belirlenen bir unsur olarak daha yoğun bir şekilde ele alınmalıdır. Eczacılığın farklı çalışma alanlarında bu ölçeğin uygulanması ile meslektaş dayanışması düzeyinin belirlenmesi ve geliştirilmesi gerektiği düşünülmektedir.

**Anahtar Kelimeler:** meslektaş, dayanışma, eczacı, iletişim, sağlık hizmeti

**Türkçe Kısa Başlık:** Eczacılarda Meslektaş Dayanışması

## Introduction

Solidarity found many reflections in a wide range of integrated interests from policy to health whereby defined comprehensively as “*networks of social relationships that involve mutual dependencies, responsibilities, and entitlements within a defined group of people or a community*”.<sup>1</sup>

The concept of solidarity was evaluated in quite old times. There are many uses of the concept of solidarity from Roman law to the French Revolution.<sup>2</sup> Besides, according to Ibni Haldun, individuals create strong solidarity by coming together for certain reasons. Through solidarity, they overcome many difficulties and achieve the goals that they want to achieve. On account of this solidarity, individuals tend to protect and defend each other, take a common stand on economic, social, and political issues, and take joint actions. It is the society with strong solidarity that they live in, not their personal talents, that makes people who are accepted as superior people successful.<sup>3</sup>

It can be found particular concepts like intergenerational solidarity<sup>4</sup>, social solidarity<sup>5</sup> and gender solidarity<sup>6</sup> in the literature. Colleague solidarity is another important issue related to solidarity. It includes the support of colleagues in every field they need, and the sharing of professional knowledge, technique, and skills. It is also related to develop professional knowledge and increase professional skills.<sup>7</sup>

One of the important benefits of collegiality listed by Benschhoff and Paisley (1996)<sup>8</sup> is the effect of increasing the skills that helps each other professionally. Similarly, Carroll (2001)<sup>9</sup> indicates that “the support and assistance of group members to each other helps group members to integrate with each other” in terms of solidarity.

It is stated that colleague solidarity, which emphasizes trust, independent thinking skills, and sharing, enables the problems encountered in health service delivery to be dealt with effectively. It is also known to support feelings of belonging, open communication, cooperation, and support.<sup>10</sup>

Particularly in crisis times, it can be seen how much collaboration is needed within colleagues, which makes it easier to overcome problems. Studies show that colleague solidarity also affects factors such as job satisfaction, job stress, and professional self-esteem. It is also emphasized that colleague solidarity can be improved with applications in vocational education processes.<sup>11</sup> In healthcare, colleague solidarity is as important as the solidarity of different occupational groups because of its close link with colleague relations. It's known that the colleague interactions increase the opportunity to speak and reflect, ensuring that everyone involved is aware of their knowledge and experience. Besides, colleague relations; it works when important issues such as patient health are considered more important than one's personal ambitions.<sup>12</sup> In this context, there are some studies with the healthcare professionals, especially with nurses, about the colleague solidarity.

Gül and Bahçecik conducted a descriptive study with 297 nurses working in hospitals in Istanbul. Introductory information form, colleague solidarity scale, and job stress scale were used as data collection tools. In this study, nurses' level of collegiality and work stress were found to be high. (Gül P, Hemşirelerde Meslektaş Dayanışması ve İş Stresi, Marmara University Institute of Health Sciences, Department of Nursing, Master's Thesis, İstanbul: 2019)

In another study with nurses, it was found that the more professional solidarity among nurses, the higher the job satisfaction. It was also stated that generation differences should be taken into consideration to increase the colleague solidarity and job satisfaction of working nurses.<sup>13</sup> The basis of the professional solidarity of pharmacists in Turkey is based on the Turkish Pharmacists Deontology Regulation, as well as their professional practices.<sup>10</sup> The statement related with the solidarity, "*Pharmacists establish good relations with their colleagues; they help each other materially and spiritually*".<sup>14</sup> Collaboration with colleagues is also included in the National Pharmacy Core Education Program.<sup>15</sup>

Apart from these, there are various studies related to colleague solidarity in the field of nursing and teaching.<sup>16,17</sup> However, there is no study on collegiality between pharmacists in both national and international literature. Therefore, within the scope of the planned study, the current situation regarding colleague solidarity among pharmacists, which is also included in the relevant legislation in our country, will be revealed.

## **Material and methods**

### *Measurement tool*

In this study, the questionnaire technique was used for data collection. The questionnaire includes the “Colleague solidarity scale among nurses” developed by Uslusoy and Alpay (2013).<sup>18</sup> The scale has three factors named as: (i) emotional solidarity (ES), (ii) Academic solidarity (AS), and (iii) Negative opinions about solidarity (NOS). The scale contains 23 items prepared by a five-point Likert type scale; (1) never to (5) always.

Besides, there are three demographic questions and six questions to get information from participants related colleague solidarity in the questionnaire.

#### *Sample size and data collection*

The minimum sample size was calculated as 385; on 0.05 significance level,  $z = 1.96$ ,  $d$  (sensitivity) = 0.05, and  $p$  and  $q$  values, being 0.5. To increase the reliability of the study results, it was tried to reach the maximum number of individuals that could be reached. As a result, data obtained from 774 pharmacists working in community pharmacies, hospital pharmacies, public institutions, universities, and pharmaceutical industry in Turkey.

The study was conducted between 17.07.2020-17.09.2020 after ethical approval was obtained from the Hacettepe University Ethical Committee with the Permit Number 35853172-050.06

#### *Data analysis*

In the study, descriptive statistics were used for analysing the first eight questions. Following this, negative items on the scale were inverted. Then, to extract factors, exploratory factor analysis (EFA) was conducted by IBM SPSS® Software version 22. After determining the factor structures, independent sample t-test and ANOVA tests were applied.

#### **Results**

The demographic characteristics of the participants ( $n=774$ ) are given in Table 1.

Following this, some findings related importance of colleague solidarity are presented in Table 2.

In the light of the Table 2, it is seen that participants generally give positive answers to the questions about the importance they attach to colleague solidarity. When the participants were asked which problems they think colleague solidarity is more important in solving the problems, it was determined that 40.2% of the participants found it important in improving the professional image, 29.2% in solving ethical problems and 21.6% in increasing the service quality. Then, the participants were asked which subjects they communicate with their colleagues more frequently. It is found that 47.8% of the participants contacted to learn about innovations in professional practices and 43.5% to find solutions to professional problems. Lastly, what could be effective in increasing colleague solidarity was asked. What could be effective in increasing colleague solidarity was asked and different answers were received. When the answers were evaluated, it was seen that approximately 70% of the participants emphasized that the scientific and social activities offered by the professional organization could be effective. This is followed by the effective use of social media with 25.6%.

As a result of EFA, a three factor solution was obtained (Table 3) with the Kaiser-Meyer-Olkin (KMO) measure 0.837. These three factors explained 51.029 % of the total variance. This value proves the adequacy of the variance ratio.

The factors obtained from EFA were found the same as the factors in the scale developed by Uslusoy and Alpay (2013).<sup>18</sup> Unfortunately, 8 items were removed due to low factor loading (less than 0.50). According to the calculated Cronbach's alpha internal consistency coefficients (Table 3), the factors of the scale show high reliability in the pharmacist population with this current form. Beside this, the mean values of the scale items are given in Table 3. It is seen that mean values are generally higher from 3.5. It was found that "Q5: I respect the personalities of my colleagues" had the highest mean response (4.726) and "Q20: I warn my colleagues regarding their lack of professional knowledge when I recognize it" had the lowest mean response (3.291).

Using participants' factor loadings, t-test and ANOVA were conducted to investigate participant differences in view by gender, place of duty, and working year. As a result of t-test, there is a significant difference between gender groups only in the NOS factor ( $p=0.000$ ). Females displayed more negative thoughts about solidarity. According to ANOVA, the place of duty only made a significant difference in the AS factor ( $p=0.007$ ). Since the group variances are homogeneous, the Tukey test is performed. As a result, statistically significant

difference is found between the participants work in community pharmacies and universities. Pharmacists working in universities have higher means in AS factor. Besides, working year made significant differences in the ES factor ( $p=0.000$ ) and the NOS factor ( $p=0.002$ ). The Tukey test results show that these differences come from participants who work under 5 years and others in the ES factors. Unlike this, in the NOS factor, differences come from participants who work under 5 years and 6-10 years, and 6-10 years and 16-20 years. In these two cases, it was determined that those with less working years had less negative views. Moreover, as a result of the t-test, it was determined that the participants who received support from their colleagues in their professional practices had statistically significantly higher mean answers in the ES ( $p=0.000$ ) and the NOS ( $p=0.000$ ) factors than those who did not. Additionally, it was found out that the average responses in all factors of the participants who think that they support their colleagues in need and solidarity with their colleagues increased during the COVID-19 pandemic period are statistically significantly higher ( $p<0.05$ ).

## Discussion

Solidarity is a concept emphasized in many international documents and is important in terms of sustainability.<sup>19,20</sup> This concept, which is also significant in the health system<sup>21,22</sup>, has been examined within the framework of colleague solidarity of pharmacists in the scope of this study.

Pharmacists are an important part of the Turkish healthcare system. According to the Turkish Pharmacists Association (TPA)'s latest reports, it is stated that approximately 57% of 39 377 pharmacists are female and 43% are male.<sup>23</sup> This rate is approximately half of the pharmacists participating in this study. In addition, the same report noted that approximately 73.79% of pharmacists in Turkey work as community pharmacists.<sup>23</sup> Similarly, 75.2% of the pharmacists who answered the questionnaire stated that they were working in community pharmacies.

When it comes to collegiality, helping colleagues in need is an important element.<sup>18</sup> In the study, 93.2% of pharmacists participating in the survey thought that they support colleagues in needs and 40.2% found colleague solidarity important in improving the professional image. Besides, nearly 30% of the participants found it important in solving ethical problems. Similarly, Arslan et al. (2019)<sup>23</sup> put forth that support of the colleagues in solving unethical issues is valuable for pharmacists.

Providing pharmacists' colleague solidarity is one of the aims of the TPA in Turkey.<sup>24</sup> The pharmacists participating in the study stated that the activities of the professional organization increased colleague solidarity. In this context, 70% of pharmacists indicated that scientific and social activities offered by the TPA could be effective in terms of collegial solidarity. Concordantly, in one of the latest publication of the TPA, its underlined that communication channels need to be strengthened between the pharmacists and the Association.<sup>25</sup>

When the responses of pharmacists to the scale are examined, it is seen that the highest average is in the expression of respect for the personality of colleagues. This is essential in terms of supportive cooperation as well as positive communication with colleagues, which is also important in health service delivery.<sup>26,27</sup>

In this study, it was revealed that women had more negative opinions about solidarity in terms of the NOS factor. Women's views on solidarity have been studied since the end of the 90's.<sup>6</sup> Webber and Giuffre<sup>28</sup> stated that women face various obstacles when it comes to solidarity. In this context, the current results are parallel to literature.

Solidarity is also important in terms of public health and necessary to ensure sustainability.<sup>29</sup> World Health Organization (WHO) (<https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/11/whos-emergency-medical-teams->

inspire-countries-and-colleagues-during-the-covid-19-pandemic) and the United Nations (UN)<sup>19</sup> emphasized the importance of solidarity in this period in the documents they published. Garros et al.<sup>30</sup> put forth its importance for physicians. It has indicated that global solidarity is also important in terms of pharmaceutical services during the pandemic period.<sup>31</sup> Supporting this, when the scores of the pharmacists participating in the study from the colleague solidarity scale were examined, it was found that the scale scores of pharmacists who thought that solidarity increased during the pandemic process were statistically higher.

### **Study Limitations**

There were a number of limitations in this study. The questionnaire was conducted via online platform and pharmacists, who only received the survey participation link, became aware of the study. Further studies by conducting the questionnaire to a more specific pharmacist groups, it may be possible to determine the level of colleague solidarity in different areas.

### **Conclusion**

As a result of this study, it was revealed that the “Colleague solidarity scale among nurses” with three factors and 15 statements is appropriate to pharmacists’ sample. Colleague solidarity among pharmacists should be addressed more intensely as an element specified in legislation and education processes. It is necessary to determine the level of colleague solidarity and improve it by applying this scale for different pharmacy practice areas. In this regard, it will be possible to make positive contributions to professional satisfaction and motivation. Besides, it is thought that the increase in satisfaction and motivation levels will increase pharmacists' contribution to the improvement of public health.

### **Acknowledgements**

The researchers would like to thank all pharmacists, who answered the questionnaire voluntarily.

### **References**

1. De Deken JJ, Ponds E, Van Riel B. Social solidarity. In: Clark GL, Munnell AH, Orszag MJ, Willams K, eds. The Oxford Handbook of Pensions and Retirement Income Great Britain; Oxford University Press; 2006: 141-160.
2. Prainsack B, Buyx A. (2011). Solidarity: Genesis of a concept. In: Solidarity: Reflections on an emerging concept in bioethics. UK; ESP Colour Ltd; 2011: 6-9.
3. Uygun O. İbni Haldun’un Toplum ve Devlet Kuramı. İstanbul; On İki Levha Yayıncılık; 2019.
4. Uygun O. İbni Haldun’un Toplum ve Devlet Kuramı. İstanbul; On İki Levha Yayıncılık; 2019.
5. Silver H. Social exclusion and social solidarity: three paradigms. Intl Lab Rev. 1994;133:531-578.
6. Fajak A, Haslam SA. Gender solidarity in hierarchical organizations. British Journal of Social Psychology. 1998;37(1):73-94.
7. Çoban AE. Psikolojik danışmanlar için meslektaş dayanışması. Mersin Eğitim Fakültesi Dergisi. 2005;1:167-174.
8. Benschhoff JM, Paisley PO. The structured peer consultation model for school counselors. Journal of Counseling and Development. 1996;74(3):314-318.
9. Carroll, M. Counseling supervision: Theory, skills and practice. Great Britain; SAGE Publications; 2006.
10. Ellenbecker CH, Boylan LN, Samia L. What home healthcare nurses are saying about their jobs. Home Health Care Nurse. 2006;24(5):315-324.

11. Hall JN, Wong SH. A Call for Collegiality in Residency. *J Grad Med Educ.* 2017;9 (3): 401.
12. Burr SA, Collett T, Leung LY. The Value and Challenges of Collegiality in Practice. *British Journal of Hospital Medicine.* 2017;78(9):486-487.
13. Karasu F, Aylaz R, Dadük S. X ve Y Kuşağı: Hemşirelerde Meslek Dayanışması İle İş Doyumu Arasındaki İlişki. *Archives of Health Science and Research.* 2017;4(3):180-189.
14. Türk Eczacıları Deontoloji Tüzüğü, Resmi Gazete 27.7.1968, No: 12961.
15. Eczacılık Fakülteleri Dekanlar Konseyi. Ulusal Eczacılık Çekirdek Eğitim Programı (EczÇEP-2019). Ankara.
16. Taşdan M. Solidarity between colleagues in contemporary educational Supervision. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi.* 2008;41(1):69-92.
17. Kılıç, E, Altuntaş S. The effect of collegial solidarity among nurses on the organizational climate. *International Nursing Review,* 2019;66(3):356-365.
18. Uslusoy EC, Alpar SE. Developing scale for colleague solidarity among nurses in Turkey. *International Journal of Nursing Practice,* 2013;19(1):101-107.
19. United Nations. Shared Responsibility, Global Solidarity: responding to the socio-economic impacts of COVID-19. 2020.
20. Khozhamkul R, Koshbaeva L, Izmukhambetov T, Tolegenova S, Jurgutis A, Sydykov B, Davletov K. Building bridges between community, primary healthcare and academia for solidarity in health. *European Journal of Public Health.* 2019;29(4): 384.
21. Gomes D, Ramos FRS. Solidarity, alliance and commitment among healthcare professionals in the practices of the Brazilian Health System (SUS): a bioethical debate. *Interface-Comunicação, Saúde, Educação.* 2015;19(52):9-20.
22. Horn R, Kerasidou A. Sharing whilst caring: solidarity and public trust in a data-driven healthcare system. *BMC Medical Ethics.* 2020;21(1):1-7.
23. Arslan M, Tarhan N, Kalender S, Şar S. Investigation of factors affecting ethical decision-making process of community pharmacists in professional life. *J Res Pharm.,* 2019;23(1):140-145.
24. Bağcı H, Atasever M. Türkiye Serbest Eczane Sektör Analizi. Ankara; TEB; 2020.
25. TEB. COVID-19 Mücadelesinde Türk Eczacıları Birliği. Ankara; TEB; 2021.
26. Abrahamsen C, Nørgaard B, Draborg E, Nielsen D. Reflections on two years after establishing an orthogeriatric unit: a focus group study of healthcare professionals' expectations and experiences. *BMC Health Services Research.* 2017;17(1):602.
27. Göktepe N, Yalçın B, Türkmen E, Dirican Ü, Aydın M. The relationship between nurses' work-related variables, colleague solidarity and job motivation. *Journal of Nursing Management.* 2020;28(3):514-521.
28. Webber GR, Giuffre P. Women's relationships with women at work: Barriers to solidarity. *Sociology Compass.* 2019;13(6):e12698.
29. West-Oram P. Solidarity is for other people: identifying derelictions of solidarity in responses to COVID-19. *Journal of Medical Ethics,* 2021;47(2):65-68.
30. Garros D, Garros D, Austin W, Dodek P, How Can I Survive This? Coping During COVID-19 Pandemic. *Chest.* 2020: doi: <https://doi.org/10.1016/j.chest.2020.11.012>.
31. Chan AHY, Rutter V, Ashiru-Oredope D, Tuck C, Babar ZUD. Together we unite: the role of the Commonwealth in achieving universal health coverage through pharmaceutical care amidst the COVID-19 pandemic. *Journal of Pharmaceutical Policy and Practice.* 2020;13:1-7.

**Tables**

**Table 1.** Characteristics of the participants

	<b>Frequency (%)</b>
<b>Gender</b>	
Male	50.6
Female	49.4
<b>Place of duty</b>	
Community pharmacy	75.2
Hospital pharmacy	11.8
Public institution	3.5
University	5.3
Pharmaceutical industry	3.1
Others	1.1
<b>Working years</b>	
5 years and less	26.2
6-10 years	22.0
11-15 years	14.6
16-20 years	11.9
21-25 years	8.1
More than 25 years	17.2

**Table 2.** Participants views on importance of colleague solidarity

<b>Questions</b>	<b>Frequency (%)</b>	
	<b>Yes</b>	<b>No</b>
Do you get support from your colleagues in your professional practice?	85.3	14.7
Do you think you are supporting colleagues in need?	93.2	6.8
Do you think your solidarity with your colleagues increased during the COVID-19 pandemic period?	62.8	37.2

**Table 3.** Means of items and exploratory factor analysis rotated factor structure

Items	Mean values	Factor loadings	Cronbach's alpha value
<b><i>Emotional solidarity</i></b>			
Q12. I am tolerant of my colleagues.	4.469	0.771	0.754
Q5. I respect the personalities of my colleagues.	4.726	0.758	
Q15. I feel a spiritual relief when I help my colleagues.	4.526	0.645	
Q7. I always treat my colleagues honestly.	4.628	0.642	
Q11. I trust my colleagues.	3.702	0.619	
<b><i>Academic solidarity</i></b>			
Q21. I encourage my colleagues to participate in professional conferences and symposiums.	3.605	0.741	0.734
Q20. I warn my colleagues regarding their lack of professional knowledge when I recognize it.	3.291	0.687	
Q17. I help my colleagues carry out individual scientific studies.	4.163	0.660	
Q22. I share my job experiences with my colleagues so that they will not make the same mistakes.	4.296	0.620	
Q4. I willingly take part in the scientific studies of my colleagues.	4.094	0.600	
<b><i>Negative opinions about solidarity</i></b>			
Q3. I do not try to solve the problems of my colleagues that they share with me.	4.438	0.729	0.725
Q2. I do not care about the health problems of my colleagues.	4.133	0.714	
Q19. I cannot help my colleagues because of my workload.	3.756	0.688	
Q6. I am not sensitive to the studies of professional organizations.	3.926	0.659	
Q23. I never help my colleagues if they do not ask for my help.	3.364	0.629	