

# Raising Scientists: A Phenomenological Study on Advisor - Advisee Relationships in Doctoral Education

## Bilim İnsanı Yetiştirme: Doktora Eğitiminde Danışan - Danışman İlişkisi Üzerine Bir Olgubilim Çalışması

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### Özet

Bu çalışma, üniversitelerin doktora danışmanlığı ile ilgili iç mekanizmalarını ve danışan-danışman ilişkisinin geleceğin bilim insanlarının gelişimindeki rolünü deşifre ederek, doktora eğitimi süreci boyunca danışan-danışman ilişkisini hem danışan hem de danışman perspektifinden kapsamlı bir şekilde incelemeyi amaçlamıştır. Araştırmada nitel olgubilim deseni kullanılmıştır. Türkiye’de iyi kurulmuş danışan-danışman süreçleri ve güçlü organizasyon kültürleri ile uluslararası düzeyde kabul görmüş, tanınırlığı yüksek iki araştırma üniversitesinde 13 doktora öğrencisi ve 18 öğretim üyesi ile görüşmeler yapılmıştır. Sonuçlar, süreç boyunca her iki tarafın birbirinden ve kendisinden beklentilerinin yanı sıra danışan-danışman ilişkisinin sürecin verimliliğine, danışanların gelecekteki akademik kariyerlerine ve kimliklerine etkisini ortaya koymaktadır. Danışanlar genel olarak danışmanları ile olan iletişim ve çalışma planlarını vurgularken, danışmanlar da danışmanlık sürecinin farklı boyutlarının bilim insanı kimliği anlayışını nasıl etkilediğini vurgulamışlardır. Ayrıca, öğrencilerin danışmanlarının desteğini hissettiklerinde ve danışmanları ile yakın bir ilişki içinde olduklarında kendilerini bilim insanı/araştırmacı olmaya daha yakın hissettikleri ve danışmanların söylemlerinin bu argümanı tüm öğretim üyelerinin desteğini bir bütün olarak hissetmek şeklinde genişlettikleri sonucuna ulaşılmıştır. Çalışma, danışmanların geleceğin bilim insanlarını yetiştirmedeki önemli rolünü vurgulayarak, üniversitelerin öğretim üyelerinin danışmanlık becerilerini geliştirmelerini desteklemenin yollarını bulma ihtiyacını ortaya koymaktadır.

**Anahtar Sözcükler:** Danışan, Danışman, Doktora Eğitimi, Danışan - Danışman İlişkisi, Olgubilim Deseni.

### Abstract

The current study aimed to examine the advisor-advisee relationship from the perspectives of both advisees and advisors throughout the doctoral education process, deciphering the internal mechanisms of universities related to doctoral advisement and the role of the advisor-advisee relationship in the development of future scientists. A qualitative phenomenological research design was used through interviews conducted with 13 doctoral students and 18 faculty members at two high-ranking public research universities with well-established advisor-advisee processes and strong organizational cultures. The results demonstrate the expectations of both parties from each other and themselves throughout the process as well as the effects of the advisor-advisee relationship on the efficiency of the process, advisees’ future academic careers, and identities. Advisees generally focused on communication and planning thesis work with advisors while the advisors stressed how different dimensions of the supervising process affect the understanding of scientist identity. Additionally, it was concluded that students feel closer to being a scientist/researcher when they feel the support of their advisor and have a close relationship with their advisor, and the discourses of advisors extend this argument to feeling the support of all faculty members as a team. The study highlights the important role of advisors in raising future scientists which demonstrates the need for universities to find ways to support faculty members in developing their supervisory skills.

**Keywords:** Advisor, Advisee, Doctoral Education, Advisor-Advisee Relationship, Phenomenological Study.

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Yükseköğretim Dergisi / TÜBA Higher Education Research/Review (TÜBA-HER), 13(2), 273-286. © 2023 TÜBA

Geliş tarihi / Received: Nisan / April 5, 2023; Kabul tarihi / Accepted: Haziran / June 23, 2023

Bu makalenin atf künyesi / How to cite this article: Gelmez Burakgazi, S., Gökalp, G., Kaya Kaşıkçı, S., Yıldırım, H., Ercan, A. M. & Yıldırım, A. (2023). Raising Scientists: A Phenomenological Study on Advisor - Advisee Relationships in Doctoral Education. *Yükseköğretim Dergisi*, 13(2), 273-286. doi: 10.53478/yuksekogretim.1276510

\*Bu makalenin bir bölümü AERA’da (2021) aynı başlıkla sunulmuştur: “Raising a Scientist: A Phenomenological Study on the Advisor-Advisee Relationship” / A part of this paper was presented at AERA (2021) with the same title: “Raising a Scientist: A Phenomenological Study on the Advisor-Advisee Relationship”

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Universities, with the scientific research they conduct, play a significant role in the development of both the society within which they exist and the world in training the qualified human resources and in contributing to the production of the knowledge and the technology the world needs. As a natural consequence of the information age, research and the knowledge claims it produces places universities in a critical position. These needs of the universities are often addressed through graduate education. Graduate education aims to raise scientists who will serve either as researchers or academicians in universities in the future and contribute both to the knowledge base in a given field and to the production of the type of technological products that will address the needs of the developing society.

### Theoretical Framework

Weidman et al. (2001) define the professional socialization of doctoral students as the process of gaining the knowledge, skills, and values necessary for individuals to successfully begin their professional careers. A student's being a part of a university in general and feeling integrated with it are shaped by the coming together of her/his experiences over time (Gardner, 2008). Socialization is usually carried out by the transfer of organizational or professional culture and takes place within an academic culture for doctoral students. Tierney (1997) defines organizational culture as the sum of symbolic or instrumental actions within the organization that plays a role in producing common meanings. With this definition, professional socialization can be considered as the successful understanding and integration of these actions by new members. Organizational culture teaches its members how to behave, what can be expected, and what it is to be successful or not to fail. Advisors have an impact on the acquisition of organizational culture since they are at the top of the resources that make this transfer. That means they are in a central position in the doctoral process and the doctoral experience (Barnes et al., 2010). Given the central role of the advisors in doctoral education and the professional socialization of doctoral students, we first define advising, followed by a detailed examination of the literature on the advisee-advisor relationship, its consequences, and the roles and responsibilities of both of the advisors and advisees.

### Significance of the Advisor-Advisee Relations

Research shows that advisors play an important role in doctoral students' learning experience; however, not all advisors and students have the same advisor-advisee relationship perception (Fairbanks, 2016). The challenges that arise in these diverse experiences cause problems for doctoral students, such as high dropout rates, long program completion times, and inadequate teaching and research (Gardner & Barnes, 2007). For instance, student attrition in doctoral education is seen as a striking problem in

different countries. Although there are some differences in attrition rates between disciplines in the US, on average, 40-60% of students enrolling in should be written together doctoral programs do not complete the doctorate (Council of Graduate Schools, 2008). Although student attrition is a frequently discussed issue in international literature (e.g., Lovitts, 2001), there is limited research on this topic in Turkish higher education literature. In the Turkish context, considering the completion rates of candidates who have started doctoral education, it is seen that a considerable number of students take a break from their programs or are passive students (Ertem & Gokalp, 2019). Ertem and Gokalp (2016) examined the overall attrition rates of doctoral students in Türkiye and found that the student attrition rates were 42% and 26% for the two universities in the top 10 in Türkiye according to data from URAP (University Ranking by Academic Performance) in 2015.

Duffy et al. (2018) identify the relationship between the advisor and the advisee as the most important relationship in graduate students' academic life. Research indicates that the advisor-advisee relationship is associated with several indicators of success for graduate students, with the most significant ones being the dissertation progress and successful completion of the dissertation (Sambrook et al., 2008), highlighting the importance of its efficiency (Van Der Linden et al., 2018). Poor relationship between advisee and advisor could impede the dissertation process. Golde (2005) stated that 40% of the students who started their Ph.D. in the US failed to complete their dissertation due to a lack of trust, intellectual support, and communication between advisor and advisee. In addition, according to Faghihi et al. (1998) students who had productive relations with advisors progressed faster than students who had poor relationships with advisors and evaluated advisors as ineffective. For this reason, advisors are identified as the key people that students should be in communication with during the doctoral process (Schlosser et al., 2011), which raises the question of who an effective advisor is and what their responsibilities are (Barnes & Austin, 2008).

### Characteristics of an Effective Advisor

Characteristics of an effective advisor are associated with the advisor's responsibilities which include personal characteristics as well as their role in guiding the academic processes of their graduate students (Duffy et al., 2018). Van Der Linden et al. (2018) also found that the mentoring relationship should be meaningful in terms of learning; however, the advisors could not support their students in this dimension. From a different perspective, Sambrook et al. (2008) stated that the most important factor in the effectiveness of the advising process is the advisor-advisee relationship, and a good advisor is a supportive, honest and accessible person who approaches his/her graduate student both as a friend and as a professional, follows a structured process and establishes a non-hierarchical relationship.



Generally, the relationship between the advisor and the advisee has been studied from the perspective of the advisors and how they define this process, whereas there has been scarce research concerning students' perspectives (Taylor et al., 2018) and there are only a few studies that examine the perspectives of both groups. For example, Taylor et al. (2018) examined how doctoral students from different disciplines and advisors both described this process and found that the most effective feature of the advisor for students was the advisor being helpful. Doctoral students and advisors also emphasized the importance of communication skills, emotional support, making sense of the doctoral process, improving the researcher by providing effective and timely feedback, and determining the direction of the research.

### Advisors' Responsibilities

Barnes and Austin (2008) have examined advising literature in three main categories: impact, practices, and outcomes. The first category mostly included factors that affect advising, such as perception about the student, previous advising experience; the second category included the behaviors required to be a good advisor and the last category included the outcomes of the advising processes. The main mission of advisors is to ensure the success of advisees, develop them as researchers, and ensure their professional development (Barnes & Austin, 2008). They stressed the importance of providing regular feedback to students to keep them moving forward. They also determined that processes such as cooperation, advising, defense, and punishment are involved in the advising process. Within the scope of the collaboration, they found that there need to be additional academic activities such as conducting other research, publishing articles, and presenting papers at conferences. As a result, they considered the concept of advising from a broader perspective and defined it as guiding the person in the professional development process rather than just focusing on academic activities.

Taken together, these studies emphasize that the description of a good advisor involves personal traits like honesty, accessibility, sensibility as well as academic qualifications and roles like subject area knowledge, directing the dissertation process, contributing to professional development, socializing into the academic culture, and providing structured feedback. In sum, good advising requires combination of the above-stated features and responsibilities than just directing the dissertation.

### Doctoral Students' Responsibilities

The responsibilities of the students in the doctoral process vary according to the countries and programs. In the US and Türkiye, there are three main steps: completing the courses, passing the proficiency exam, and writing a dissertation in the last stage. In addition, during this process, students are expected to learn academic language, teaching practices, and research topics in a particular academic field, and realize that

they are they are scientists rather than students (Baker & Pifer 2011). Students are also expected to establish a good relationship with advisors, be part of a network and cooperate with people from the field to develop a researcher identity. As such, the only responsibility of a doctoral student is not to write a dissertation but to be responsible for his/her own development in the process and to train himself/herself as a scientist.

### Research on Advisor-Advisee Relationships in Türkiye

In Türkiye, doctoral education's aim is to help students develop the skills necessary to conduct research independently, to examine scientific problems and data in their specific field in-depth and comprehensively, interpreting, analyzing and to reach new synthesis making a unique contribution to the field. Currently 114508 students are enrolled in a total of 11402 doctoral programs in Türkiye (CoHE, 2023). Students accepted to doctoral programs with a Master's degree with a thesis are required to complete at least 7 graduate level courses (14 graduate level courses for those with a bachelor's degree only), to attend a seminar course, pass the qualifying exam, pass the thesis proposal, and successfully complete and orally defend his/her thesis. The maximum time given to complete the degree for those who started the PhD. with a master's degree is 12 semesters (14 semesters for those with a bachelor's degree only). They are required to select their advisors at the end of the first year of the doctoral program which is the starting point of at least a four year advisor-advisee relationship.

In Türkiye, there is limited research on the advisor-advisee relationship, roles, and responsibilities (eg. Arastaman et al., 2020; Bakioglu & Gurdal, 2001; Karadag & Ozdemir, 2017). Most studies conducted are quantitative, generally focusing on the views of research assistants on doctoral processes and problems experienced in doctoral education in general, examining advisor-advisee relationships as a sub-dimension. Bakioglu and Gurdal (2001), found that advisors dictated their terms to advisees, were not giving adequate feedback, and lacked efficient expertise while the dissertation was written "at the last minute," and advisees determined the dissertation topic and developed the required tools by themselves. Generally, advisors' roles were identified as guiding, teaching, and supporting with qualities like honesty, knowing the students, and dedicating time (Seckin et al., 2012). Additionally, students' expectations from advisors include effective communication, support of candidates during research, and training of candidates as effective researchers (Seckin et al., 2012). Another study considering the difficulties faced by research assistants in the doctoral process revealed that the problems experienced by research assistants in advising processes are the most important obstacles to academic development (Karadag & Ozdemir, 2017).

This is an important research area in doctoral education as it has the potential to offer unique perspectives to the search for solutions to improve the process of raising qualified scientists and has the potential to cause significant material and nonmaterial losses in the lives of students as a result of incompleteness of doctoral education (Lovitts, 2001). Such research should contribute to the understanding of the internal mechanisms of universities. Overall, in Türkiye, there is a glaring gap in the literature with research focusing solely on the structure, functioning, and quality of the advisor-advisee relationship in the doctoral process, and these studies were mostly carried out with data collected from research assistants (i.e., Arastaman et al., 2020; Karadağ & Özdemir, 2017). To better understand the entire doctoral education process and the role of the advisor-advisee relationship throughout the process, we conducted a comprehensive examination of the advisor-advisee relationship throughout the doctoral education from both the advisees' and advisors' perspectives. We also explored the contribution of the advisor-advisee relationship to the development of future scientists and academicians. The research questions that guide the current exploration are as follows: (1) What are the perceptions and experiences of Ph.D. students and advisors/faculty members on the roles and responsibilities of advisors and advisees, and the overall advisor-advisee relationship) in the advising process? (2) What are the effects of the various dimensions of the advising process mentioned above and the different experiences related to these dimensions on the scientist training process?

## Method

In this study, a qualitative phenomenological research design was used to investigate the advisor-advisee relationship experience from the perspectives of both advisors and advisees. Phenomenological studies are patterns that examine the perceptions and experiences of individuals who experience these phenomena and the meanings they attribute to them through in-depth interviews (Patton, 1990). The phenomenon in this study was supervision experiences of advisors' and advisees'. This design helped us to gather detailed information about the experience which we are aware of but do not have detailed information about as discussed by Yıldırım and Şimşek (2016).

**Participants.** The study was conducted at two major state universities in Türkiye, in three programs under the Educational Sciences Department with 13 doctoral students at different stages (course period, dissertation period, etc.) and 18 faculty members who work in the same department as advised doctoral students (see ■ Table 1 & ■ Table 2). The two major state universities were selected because they have been identified as research universities with well-established advisor-advisee processes and a strong organizational culture in Türkiye. To the best of our knowledge, there is a lack of study investigating advisor-advisee relationships from the perspectives of both parties at educational sciences departments. Upon identifying key dimensions of variations (gender, program, phase in doctoral study, job status, etc.), participants were recruited based on a maximum variation

■ Table 1. Demographics of the Instructor Participants.

	Gender	University	Department	Title	Experience (year)
I1	M	U1	EAP	Professor	13
I2	M	U1	CI	Professor	29
I3	M	U1	COUN	Professor	30
I4	F	U1	CI	Professor	16
I5	F	U1	COUN	Professor	30
I6	F	U1	COUN	Professor	46
I7	F	U1	CI	Professor	20
I8	F	U2	CI	Professor	22
I9	F	U2	CI	Asst. Professor	9
I10	M	U2	EME	Professor	32
I11	F	U2	EME	Professor	24
I12	F	U2	EME	Assoc. Professor	8
I13	M	U2	EAP	Assoc. Professor	9
I14	M	U2	EAP	Professor	9
I15	F	U2	COUN	Professor	16
I16	M	U2	COUN	Professor	11
I17	F	U2	COUN	Assoc. Professor	11
I18	M	U2	CI	Assoc. Professor	11

Note: Instructor participants were on average 52.6 years old (SD = 9.05).



■ **Table 2.** Demographics of the Student Participants.

	Gender	University	Department	Employment	Time Spent in the Graduate Program	Phase
S1	F	U1	COUN	Employed*	5	Qualification
S2	F	U1	EAP	Employed*	10	Graduated
S3	F	U1	CI	Employed*	2	Course
S4	M	U1	COUN	Employed	7	Thesis
S5	M	U1	CI	Employed	6	Thesis
S6	F	U1	COUN	Employed*	4	Thesis
S7	F	U1	CI	Employed*	9	Thesis
S8	F	U1	EAP	Employed*	4	Course
S9	M	U2	EME	Employed*	8	Thesis
S10	M	U2	COUN	Employed	8	Thesis
S11	M	U2	EAP	Employed	10	Graduated
S12	F	U2	CI	Employed*	7	Thesis
S13	M	U2	EME	Employed*	7	Thesis
S14	F	U2	CI	Employed	7	Thesis

Note: Student participants were on average 33.1 years old (SD = 4.08).

sampling strategy. As suggested by Creswell (2005) and Patton (2002), the researchers sampled individuals that vary in some characteristic or trait as much as possible to identify important common patterns. ■ Table 1 and 2 show the demographic profile of the participants.

**Data Collection Tools.** Two semi-structured interview forms: one for advisors and one for advisees were used. Interview is the primary data collection tool in phenomenological research (Creswell, 2012). The forms were developed by the researchers based on previous literature examining the doctoral education process in terms of the stages of doctoral education. Participants were asked about the advisor-advisee relationship and how it has evolved from the beginning stage of doctoral education involving taking courses, during the preparation stage for examinations and determining committee members, and at the dissertation phase to provide a comprehensive picture of the advisor-advisee relationship. These forms were finalized with opinions from three field experts. Pilot interviews were held with both advisors and doctoral students having characteristics similar to the target participants.

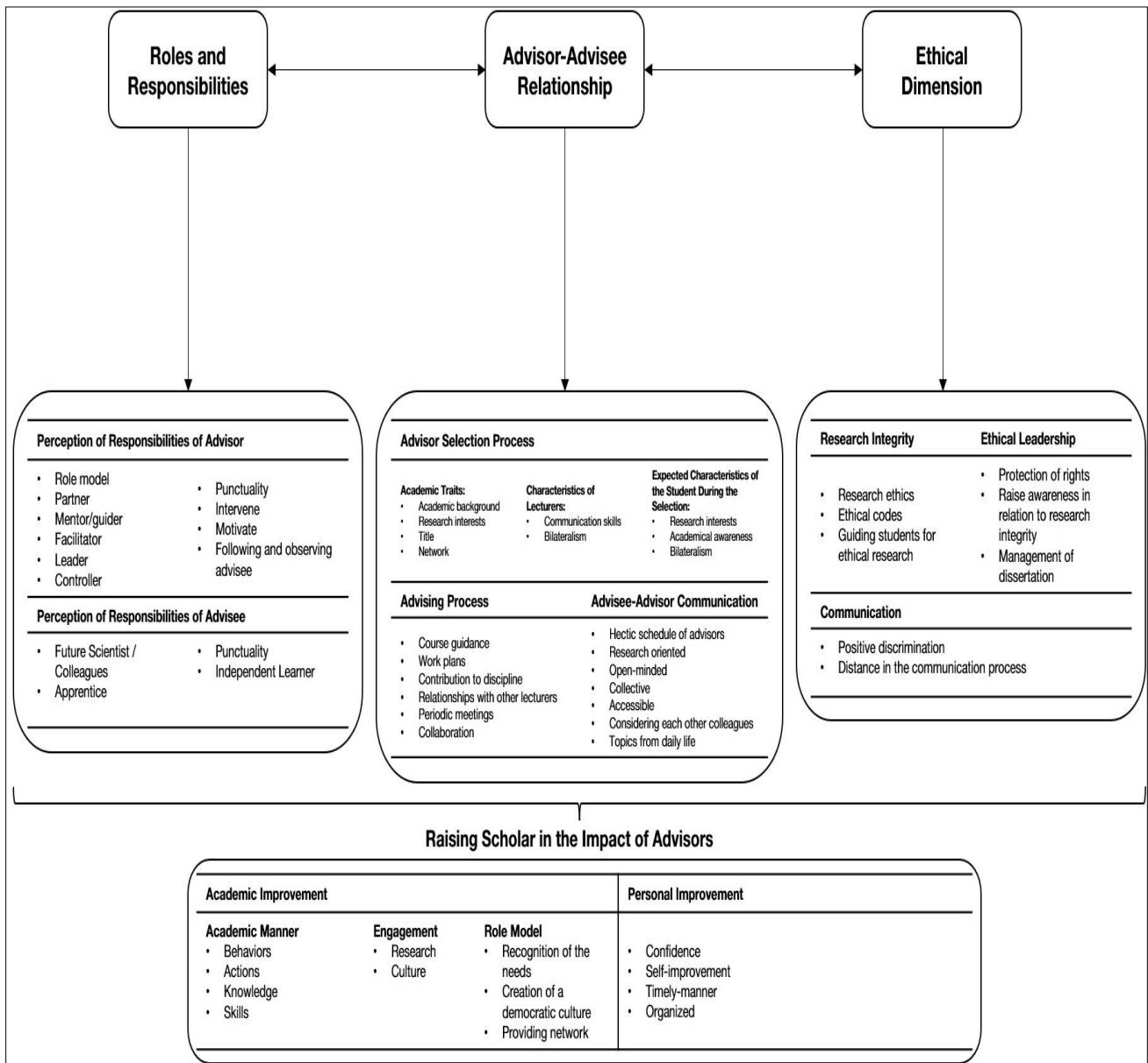
**Data Collection Procedures.** Upon obtaining ethical permissions from both universities, data collection was initiated. Face-to-face interviews were conducted in the 2019-2020 Fall semester by the researchers. Interviews were audio-recorded with the permission of the participants and each lasted approximately 45-60 minutes.

**Data Analysis.** A total of 303 pages of transcription were subjected to thematic content analysis. For this, the interview records were read in detail, first themes and categories were created based on the research questions, every relevant

expression were listed, irrelevant ones were eliminated in data reduction while moving back and forth between statements until themes were appropriately reflected in the clusters (Colaizzi, 1978), other dimensions were added when necessary to explication, individual textual descriptions were constructed to develop an integrative description of meanings and essences of experiences for the group as a whole as well (Moustakas, 1990), themes were identified, then the data were organized along these themes and codes to give it a meaningful structure, then the results were written based on this structure established through detailed descriptions and selected critical quotations.

**Trustworthiness.** Trustworthiness is one way to prove that the research is strong and the findings are notable (Lincoln & Guba, 1985). To demonstrate trustworthiness the strategies mentioned by Lincoln and Guba (1985) were taken into consideration: Credibility, transferability, dependability, and confirmability. To increase credibility, the data sources were diversified by including participants from different fields in education at different stages of the doctoral program. In qualitative research, triangulation refers to the use of various methods or data sources to generate a thorough understanding of phenomena (Patton, 1999). Denzin (1978) and Patton (1999) classified triangulation into four types: (a) technique triangulation, (b) investigator triangulation, (c) theory triangulation, and (d) data source triangulation. The fact that the process was followed by more than one researcher contributed to triangulation (researcher triangulation). Also, in-depth interviews and well-documented processes, and detailed descriptions of the process during the research contributed significantly to the credibility of the study, as discussed by Lincoln and Guba (1985). Thick descriptions were also a way to increase transferability.

**Figure 1.** The Themes and Codes Emerged From the Data.



For confirmability, the quotations were used wherever necessary to support the findings. To avoid researcher bias, researchers discussed creating a thorough framework and interpretations of the results, results were supported with quotes wherever possible, and records were maintained for everyone on the research team.

The Human Subjects Ethics Committee of the Middle East Technical University and Hacettepe University assessed the research proposal and approved the project. The first approval was solicited on 24.05.2019 from Hacettepe University (approval code: 76942594-600/00000608426) and the second approval was solicited on 10.05.2019 from Middle East Technical University (approval code: 243-ODTÜ-2019).

## Results

The roles and responsibilities of both advisors and advisees, advisor-advisee relationship during the process and ethical dimension of the advisor-advisee relationship were the key results that uncover the answers for the research question 1. Concerning research question 2, contributions to academic development and personal development emerged as the main themes. Figure 1 illustrates the overall model.

### Roles and Responsibilities of the Advisors and Advisees

How advisors and advisees defined and perceived both roles and responsibilities of advisors and advisees were



reported under this section. The definition of the role of advisors varied as mentor, guide, facilitator, leader, director, controller, partner, and role model.

### **Perceptions of Advisors' Roles and Responsibilities.**

There is a concrete relationship between the attributed roles of the advisors and expectations from the advisors. Both the advisors and advisees who described the advisor as a facilitator highlighted that advisors should intervene, motivate, and follow up while observing the advisees.

"When advisees show frustration at any stage, I always intervene and make an effort to bring them back to the field, which is what being an advisor requires." (I18, U2)

"...I think it is important how an advisor can motivate and support advisees because I think that one of the most important things in this process is motivation." (S4; U1)

Advisors described their roles as guides, mentors providing guidance specifically about scientific methods, ethics, academic writing, and reading. One advisor provided a detailed description of the advisor's role as involving orientation to the field, providing guidance and supervision, and described mentoring as encompassing all of these roles within.

I mean, of course, there are all of these, getting used to the field, supervision, guiding their work, but mentoring is more inclusive in my opinion. In other words, it enables a person to adapt to the field, brings supervision, and mentoring brings other dimensions, in my opinion (...) I think a person with field experience can mentor, and I think that mentoring is more inclusive compared to these concepts. (I8, U2)

Some advisors (I7, U1; I14, U2) specifically mentioned the need for counseling and supporting while trying to create a healthy balance between academic and personal life where the advisor's role is changed and s/he becomes a facilitator, motivating, and supporting the advisees.

Some advisees know a bit about what to do, but their motivation has dropped because of other problems in life. They become unable to accomplish a task. "I can play the role of a psychologist, solve this problem, and create a little motivation with my advisee (...) Advisees arrive, and six months go by. (...) I invite them to talk. I'm trying to be supportive. With that psychological support, I win advisees back and pull them back to work. (I14; U2)

Advisees also defined the role of advisors in a similar vein; a mentor/guide, counselor, coach, role model, leader, and partner. The same specific duties like scientific methods, ethics, academic writing, and reading were attributed to the advisors' roles as well: "...the mentor, who can meet my needs and guide my process well..." (S5, U1). Some advisees mentioned the necessity of advisors providing counseling as well for a healthy, stable academic and personal life,

motivating, supporting, and encouraging as uttered by S5, U1. Most advisees perceive advisors as role models, leaders, and controllers in a way not observed by advisors while some advisees (S3, U1; S5, U1; S6, U1) mentioned advisors as partners.

The participants view advisors as mentors/guides focused on the academic duties to be fulfilled like knowing all possible questions related to research, literature, and tools, directing advisees to necessary sources, and theories, and guiding them about academic writing and reading techniques, allocating the needed time and responding to advisees on time.

### **Perceptions on Advisees' Roles and Responsibilities.**

The analysis showed that all of the participants focused mostly on the responsibilities of advisees rather than roles. Two of the advisors indicated that they consider advisees as colleagues (I8, I12) and as scientists.

Now, the advisee seems a little more serious, of course. The advisor looks at him as a colleague, as he will graduate in the future, and will be appointed as an assistant professor, and he will go to the position of associate professor. (I12, U2)

Both advisees and advisors indicated that the dissertation is the advisee's responsibility highlighting that advisees should be independent learners and researchers, having the awareness that advisors are not study partners.

The most important thing is that an advisee should say that this is my research, my responsibility. An advisor is merely a contributor, helper... I call him/her a guide, so the responsibility is all advisees. (I6, U1)

Advisees also highlighted that the advisees' responsibility is grand, that they are the ones who are foremost responsible for dissertation work, with one participant emphasizing that "My signature will be on the dissertation" (S12, U2). Both parties agreed that advisees have to take ownership of the dissertation, follow the necessary bureaucratic procedures promptly, and become an expert on the relevant literature, the methodology, and the implications of the research.

The responsibility of the student is to fulfill what is expected of him or her but the most important thing is to say 'this is my research, my responsibility'...he/she is not doing this research for someone else...I call the advisor a guide...the responsibility belongs to students. (I6, U1)

It was also emphasized that advisees are responsible for collaborating with advisors in decision-making on consensus and planning. Many advisees and advisors emphasized the active participation of advisees in the collaboration and questioning advisors' suggestions rather than blind implementation, to sustain an effective relationship with open communication. Publishing the article of the

dissertation was considered an ethical responsibility of advisees because not having a publication from a thesis makes the whole process meaningless. The advising process is seen as teamwork through which both advisor and advisee can benefit mutually (I4, U1).

### Advisor-Advisee Relationship

**Advisor Appointment Process.** Differences in the advisor appointment process between U1 and U2 universities emerged from the data. In U1 advisees choose advisors, in U2, advisor appointment process varies by department. In U1, advisees are appointed to advisors, considering advisees' requests. Advisors' "academic background" and "research interests" emerged as the most important criteria for advisor selection.

I decided by looking at the backgrounds and biographies of the faculty members who specialize in the field I want to work on. Afterward, I made an appointment with her/him... This is how I chose my advisor. (S4, U1).

Factors like "title," "peer (advisee) feedback," "network" and "communication" apart from advisor's research areas are also considered. Some participants stated they mostly prefer advisors with the title of a professor as they believe that their vast experience is beneficial to the advising process. Interestingly, for a female advisee (S3, U1) "gender" is also an influential factor in choosing an advisor in favor of male faculty members: "Most of the female lecturers can be like... As a woman myself, I can recognize it in myself. Their mood can quickly change."

Among the negative experiences in advisor selection is that some of the course advisors or graduate advisors show emotional reactions when they are not selected. Advisors think that they should also have the right to choose advisees to democratize the process for both parties. Some participants think that advisor selection is detrimental to advisees because they only choose communication-oriented advisors without academic awareness. Another concern of this "democratic" process is the inattentive way of appointing advisors to advisees.

**Advisory Process.** It was observed that advisees often create a work plan with advisors to carry out this process efficiently and hold regular meetings. It was found that creating work plans creates a bond of cooperation between the advisor and the advisees during the advising process. More than half of the advisors stated that they consider the research areas when guiding advisees to courses. Advisees indicated that they are in a completely neutral position in their relationships with other faculty members and that they consult with advisors at events such as jury and committee meetings.

The fact that the advisees are working, and the lecturers have busy schedules helped both parties to prepare plans

in harmony during the advising period. Nevertheless, both parties have very hectic schedules and do not fulfill professional duties in the same ecosystem, which negatively affects the quality of the advising process. Findings showed that advisees rarely meet advisors if they are not research assistants at the same institution. Life events (birth, marriage, starting another job etc.) also negatively impact planning and dialog during the advising process.

When there was a positive relationship between the advisor and the advisee, both parties appreciated that they are working in harmony with each other and their joint contributions to academic products. However, S10, U2 who has a relatively poor relationship with his/her advisor, had fewer meetings, and has issues with time, indicated that the product was shaped according to the advisor's wishes rather than being a joint effort: "Even if they say, "your wishes are more important than mine", they get the thesis they want to be written. I believe this now."

**Advisee – Advisor Communication.** Upon examining the relationship between the advisee and the advisor from both perspectives in the frame of communication, it was clear that communication has become more frequent with the start of qualification exams. While advisees who were research assistants in the universities where they are receiving their graduate education stated that they developed positive communication at this point because advisors were easily accessible, those advisees who are not research assistants expressed that they had difficulties.

The advisor-advisee communication, which starts to intensify with the qualification exam, is a process in which cooperation increases and the research spheres develop with the increase of academic awareness of the advisees. Even though the advisees were cooperating with advisors, they expected not to be limited by them. Advisees can discuss the literature with advisors and receive feedback, but they expect advisors on research issues to be in a stimulating role during this communication. This collaborative bond established between the advisee and the advisor improves the formation of an exchange of ideas until the advisees write the dissertation proposal and the committee and jury members are selected.

The lecturers, who adopt positive communication as advisors, were able to motivate and support and also become idolized by the advisees being trained as future scientists. Positive communication served as an example, and advisees tended to adopt the same approach when communicating as lecturers in the future. When advisors were defining their communication style, they mostly described themselves as accessible and always open. Advisors cultivated their communication with advisees during preparation for the qualification exam by simulating the exam environment, interviewing them in the form of questions and answers, directing them to resources, and regulating the stress of advisees.





In summary, the advisors stated that most advisees are research assistants and that they direct advisees who do not have any academic duties to academic positions whenever they find the opportunity. During the post-thesis process, all of the advisors and two advisees (S2, U1; S11, U2) who completed the dissertation stated that they continued to communicate and whenever they had the opportunity, they discussed both their academic and personal lives.

**Ethical Dimension of Advising.** When defining the ethical dimension in the advising process, all participants focused on research ethics and minorly remarked on the ethical perspective in interaction and communication with the advisee or advisor by highlighting slight ethical issues experienced during this communication. The advisors stated that their main role was to notify advisees about how to conduct ethical research and to give adequate information about ethical codes in the field. They also ascribed themselves to ethical leadership roles highlighting the necessity for abiding by the ethic codes, protecting the advisees' rights, including authorship, providing benefits for advisees in the collaborated academic works, distributing the tasks fairly and successfully, and managing the thesis process as indicated by one of the advisors:

The role of ethics is very crucial. The advisor should comply with ethical codes which are already existing. Both in other institutions and ours, there need to be other additional ethical codes as well. The advisor has an ethical leadership role during the advising process (...) We need to prioritize the benefits that will enable the advisee to benefit from the work (...) You have a responsibility to raise [advisees]. (I13, U2)

In addition to raising awareness of advisees in terms of ethical violations in research, advisor participants took precautions and utilized tools for detecting any ethical issues in advisees' works. The results also revealed that participants were sensitive in the hierarchical position as advisors and advisees, which could be open to ethical violations. One of the advisors explained her/his sensitivity in this way:

You do not have the same status as advisor and advisee so the relationship needs to be well-defined...It is (weird) to be at the forefront when a study is produced, for instance, the advisees' thesis. Although the advisors have put a lot of effort, it is the advisees' thesis. For this reason, when it is published, advisees should be the first author. It is ethical. (I3, U1)

As another aspect of the ethical dimension, advisors were cautious in their interaction and communication with advisees, and they kept a physical and social distance to protect both parties. Some of the advisors explained that they engaged in positive discrimination positive discrimination against the disadvantaged advisees, especially women

advisees or the ones that have babies by and large as these advisees needed more support; yet they did not recall this as a form of ethical violation.

The advisors especially gave importance to ethically conducting research, and they were sensitive to ethical issues in academic research for which they guided advisees in taking ethical permission, avoiding any form of action violating the research and publication ethics as most of the advisee participants highlighted. Although none of the participants experienced ethical violations, both advisor and advisee participants drew attention to the tension among instructors, which indirectly had an impact on advisor selection and course selection process as well as academic network. They sometimes experienced this pressure as they collaborated with other instructors, which was reflected by the participants:

During the advisor selection process, if there is a change and the decision is left to advisees, s/he may experience many conflicts on this issue. Again, I think that advisors are not ethical in these matters since they can leave the advisees in a difficult situation due to their ambitions. For example, "You will be my advisee, not the others. Or if you are my advisee, you cannot work with other faculty, you have to publish with me". Such behaviors are not ethical at all. (S11, U2)"

Some advisees also commented on this situation as hidden in the departments' climate derived from the polarization of the academics that directly influenced advisees, although they did not prefer being part of this conflict. Rooted in this dispute, academics dominated advisees by not allowing academic collaborations with other colleagues and by benefitting from advisees materially and morally defined as "terrorizing advisees" by one participant and another advisor participant explained this unethical situation as follows:

They are making advisees serve themselves in all aspects. They also put pressure on advisees by preventing their communication with other instructors in the field, not giving importance to their ideas, recording the meetings, using these records against them, and asking them to evaluate other instructors negatively. (I8, U2)

### **Raising Academic Scholars: Impact of Advisors**

The findings indicated that all advisors, regardless of their institutions, committed to raising and improving the research and teaching skills of advisees, and they regarded this process as a salient part of the profession. Substantially, they did not differentiate this mission from the roles and responsibilities of the advisors. As part of ensuring the academic development of the advisees, advisors put effort into cultivating academic manners and behavior, delivering academic knowledge and ability, and engaging in academic culture, respectively. By

giving reference to role of a mentor, academics stated that they become a role model for advisees by the way they communicate with advisees through open dialogue, being receptive to critics, and creating a democratic culture as an essential dimension of the academic realm as indicated by one of the participants as follows:

We become a model in this sense. If we are not honest about this now, it means that the people we will raise will repeat what we have done after a while. [We need to create] a more democratic environment in which they can feel more comfortable, express themselves freely, choose advisors and thesis topics. (I18, U2)

As a critical dimension of raising scholars, participant advisors specified that they initially cared for the scholarly manner, and that includes not only academic abilities and skills but also behaviors and actions. One of the participants highlighted the importance to instil human values, which indirectly creates a growing impact in the lives of early scholars: “I care about being sensitive as a human being, having values as a scientist. I think advisors should be able to make a difference in advisees’ lives. If I can make a difference in their lives, they will make a difference in advisees’ lives.” (I15, U2)

Advisors also guided advisees to build the requisite knowledge and skills by heightening advisees’ awareness in the field and engaging them in each step of academic work. Advisees were engaged in the academic world by taking courses, getting qualifications, participating in academic conferences, and eventually writing doctoral dissertations. All dimensions are indispensable components of academic researchers and advisors lead advisees by arranging and supplying necessary conditions. First, the knowledge and skills for conducting academic research were supplied to the early scholars. Ensuring that the advisees have the knowledge and skills to write dissertations was perceived as the major responsibility of advisors. Boosting advisees’ competency in the field through networks, suggesting readings, and academic activities like conferences diversified advisees’ academic journey.

With academic manner, knowledge, and ability, advisors support advisees’ academic development by providing the academic culture components, considering ethics. Participants remarked on the significance of gaining ethical notions and academic integrity in each step of academic work, like deciding on data collection instruments, collecting data, writing results, choosing scientific conferences and journals, and realizing the ethical misconduct in publishing in predatory journals. Accordingly, grooming scholars with an ethical perspective were regarded as the responsibility of advisors.

The necessity of being an independent researcher at the end of this process was highlighted, which was characterized as “flying with their wings” (I6-U1). The results showed that advisors contributed to the academic development of advisees

through mentoring, guiding for engaging them in the academic field and being independent researchers equipped with academic skills and competencies.

“This advisee is someone who knows her field, has the skills to follow the developments, and can produce something independently...They must have gained these skills, I think they are gaining these skills.”(I2, U1)

Advisors also affect the personal development of advisees. Advisors improve advisees’ confidence, assist them to gain skills for working in a timely and organized manner, and guide advisees’ self-development as reported by both advisors and advisees. Moreover, advisors encourage advisees who receive Ph.D. titles to gain academic autonomy. Practically, the advisors highlighted that they viewed advisees as colleagues. The advisees emphasize that they were encouraged to become independent researchers after a while and make a name for themselves.

I work with people who were once my advisees. After graduation, after getting certain things, I mean ‘here  $x$  is my advisee, he/she just finished but now he/she is my colleague’. Therefore, advisees must make these distinctions, and many, almost all, have always made this distinction. (I3, U1)

Although advisors provide some opportunities highlighted above for each advisee, these opportunities and circumstances are tailored to each advisee by paying attention to motivation, expectations, and differences among advisees since not all had the same path, and they particularly emphasized the glaring differences between research assistants and advisees working outside higher education institutions. Moreover, most advisees stated that advisors assisted them in conducting academic research, writing an article, participating in academic conferences, and in building a network, which ensured their transformation as a researcher. Specifically, S11 from U2 described how the advisor supported both his/her academic and personal development:

Before my advisor, I didn’t even know how to present a paper at a conference. While I was thinking about how to go and present a paper, my advisor showed me how easy it would be, and anyone could do it. Thanks to him, I started to take part in scientific fields. I had no publications. I did my first publication with my advisor. I mean, he made a great contribution to me. Before that, I just took my classes; you know, it was like a high school...From being a person who says I cannot do these things; I have become a person with a scientific stance. That’s how I gained scientific confidence. For being prominent scholars, advisees noticed the impact of advisors as they equipped advisees by providing various activities and resources such as building a network, including advisees in projects, and teaching new methods. All these activities guide advisees to build their “researcher identity”. The impact of advisors on advisees’ academic engagement and knowledge was also stated.



My advisor is a person who always conducts research apart from thesis and courses. If there is training, she sends emails; if there is an article, she sends it. Here, she tries to do something for us. For example, she recently organized a panel about the opportunities for a doctorate abroad... It already feeds us a lot. Really. You know she does extra things for us to grow as researchers, she goes beyond her workload and constantly asks about our needs..(S6, U1)

The advisees' academic development was not independent of the advisors' abilities, skills, and competencies as perceived by the advisees.

If we examine this from the scientific point, frankly, the fact that my advisor, who is an expert and well-equipped, reflects on me as an advisee. The practices such as forming a hypothesis, how to examine a study, and examining the strengths and weaknesses of a study are improving gradually. It does not happen all of a sudden; yet, you feel that you are learning gradually during this process. (S6, U1).

One exception to the mostly positive comments of participants related to advisors' contribution to raising academic scholars/scientists was highlighted by I13 U2 and was related to the issue of developing a research community, identified in the literature as an important component in raising future scientists, indicating that "there isn't the kind of environment where a research community is established to develop the kind of intellectual habitus leading to the growth of different fields of study".

Both advisors and advisees defined the impact and roles of the advisors on the advisees' academic development in the same manner. The results explicitly revealed that advisors' contribution was not confined to academic advancement, although it was attributed to the utmost importance. Also, advisors' impact needs to be enlarged to personal development as advisees were groomed to be emerging scholars in essence.

## Discussion

In this study, advisor-advisee relationship was explored through the perceptions of the both parties. Results indicated that advisors' roles were multifaceted. Notable roles were reported as coaching, guiding, and mentoring by guiding scientific methods, ethical issues, academic writing, and reading. The participants' interpretations of "mentor," "coach," and "advisor" did not change much. However, in the literature, these concepts have different meanings, for instance, while advising might include positive, neutral, and negative relationships (Schlosser & Gelso, 2005); mentoring, which means learning from a senior, commonly point to a positive relationship (Linden et al., 2013; Schlosser et al., 2011).

Advisors' roles were also defined as orienting students to the field and supervising them throughout their career path. In advisees' career path, the main role of an advisor was to help them become researchers and assure academic careers (Barnes & Austin, 2008). In this career path, advisors were facilitators who motivate and support in-line with the existing literature (Coran-Hillix et al., 2000; Sambrook et al., 2008; Seckin et al., 2012) and encourage advisees to create a healthy balance between academic and personal lives (Sambrook et al., 2008). For most doctoral students, advisors were also role models, leaders, and controllers in a way that was not observed in the advisors' perspectives as in the literature (Fairbanks, 2016). As for advisees' roles and responsibilities, according to the analysis of advisor interviews, an advisor expected creativity; hard and responsible work and inner-motivated advisees. Moreover, advisors view doctoral students as colleagues and scientists, which grants advisees more agency in their learning process. This finding is crucial in the sense that it highlights the process as mutually inclusive, meaning that not only advisors but also advisees have certain roles and responsibilities. Also, this result aligns with the existing scholarship that underscore the active agency of advisees equipped with motivation, integrity and responsible for their academic engagement and socialization (e.g., Baker & Pifer 2011; Barnes, 2010).

Effective communication skills which increase the efficiency of the advisor-advisee relationship and enable proactive advising to take place (Menke et al., 2018; Varney 2012) has also emerged in this study as an important dimension of the advisor-advisee relationship. We found that the advisor-advisee relationship affected the doctoral students' experiences, but in different ways (Murphy, 2015). These differences matter as this relationship is expected to be efficient (Linden et al., 2013) as it plays a significant role in shaping the advisees' future academic careers. In this sense, this study further expanded on the emerging literature by emphasizing the distinctions in communication patterns between research assistants and regular doctoral students, as well as between two distinct institutions. Firstly, the communication routines of Ph.D. students and research assistants were different. Ph.D. students not working as research assistants in the same institution criticized rare meeting chances with advisors. This demonstrates that Ph.D. students who work need flexible and economically feasible opportunities to schedule meetings with advisors such as online meetings which were highly integrated into education during the pandemic. Secondly, there were some differences observed in the advisor selection process in the two universities which could be due to the fact that one university has as its requirement that faculty members either receive a Ph.D. or receive a post-doc position from a university abroad which impacts the culture of the department.

Participants discussed ethical matters such as plagiarism and doctoral students' responsibilities in the context of research ethics. An intriguing ethical issue highlighted by

both advisors and students was the polarization among instructors, which influenced the advisees' studies. Yet, advisees did not express their concerns about this polarization with their advisors. These observations can be interpreted from several angles: advisees might not understand the ethical obligations of their advisors, they may fear repercussions from discussing ethical matters (Gelmez-Burakgazi et al., 2020), or the institutional culture may guide their choices. In this context, Lowenstein (2008) proposes five ethical principles to guide advising practices and decisions: beneficence, promoting the well-being of those affected by actions; nonmaleficence, aiming to avoid or reduce harm; justice, ensuring fair and equitable treatment without preferential rights; respect; and fidelity. Equitable treatment does not imply identical outcomes, but rather a justifiable basis for any treatment differences. These principles could provide a framework for addressing the ethical issues raised by the participants in this study.

In terms of the role advising plays in raising scientists, all advisors identified it as their primary responsibility. One important theme highlighted by all advisors was their contribution to instilling in advisees' academic manner and behavior to socialize them into academia. This theme is aligned with the 'traditional' purpose of doctoral education, identified as raising scientists who become capable of producing, applying, and critiquing scientific knowledge through developing their skills to conduct more comprehensive scientific research, solve complex problems, develop expertise in field and produce and synthesize knowledge (Baker & Pifer 2011; Karaman & Bakırcı, 2010). Specifically, one significant role that has been identified by both advisors and advisees alike was the mentoring role of advisors, where they serve as role models in terms of the mannerisms of a scientist which is validated by Barnes and Austin (2008) stating that the main mission of advisors is to guide students' development as researchers. This highlights the important responsibility falling on advisors as their every action plays a role in shaping advisees as future scientists. However, this traditional 'apprenticeship model' has also been criticized as being insufficient to the competitive demands of doctoral education such as internationalization, sustaining knowledge economy, spurring innovation, collaboration across disciplinary boundaries, transferable competences besides research competencies as a gateway to other professions (Cardoso et al., 2022; Nerad, 2020; Sarrico, 2022).

Advisees and advisors alike highlighted two broad categories through which advisors helped advisees transform into scientists and develop their scientist identity: academic development and personal development. Whereas earlier on in the doctoral education process, advisors raised students as scientists by helping them gain the skills and knowledge necessary to conduct research in their particular field, as the advisee progressed through the program, the focus shifted to initiating the doctoral candidates into the

academic world through first giving them the independence to slowly start flying solo and exposing them to the respective scientific networks and the academic culture through getting them involved in research projects. This is in line with the definition Weidman et al. (2001) provide for the professional socialization of doctoral students involving the development of the skills, knowledge, attitudes, and mannerisms necessary to become scientists, in doctoral students. Many of the advisees emphasized advisors' role in their personal development as well, as manifested in aiding them in developing their confidence as researchers and highlighting the importance of human values through the advisors' mannerisms indirectly impacting the growth of the doctoral students as good human beings and ethical scientists.

A striking finding from the study was how the opportunities provided to advisees were tailored towards each student taking into consideration their motivation, expectations, and career paths as can be observed in the glaring differences in experience between those doctoral students who hold research assistantship positions and those who are working outside of academia. While it is important to tailor the advising process toward the needs of students (Chamberlain & Burnside, 2022), this finding also hints at possible differential treatment towards research assistants versus those who do not hold such positions. Interestingly enough, studies related to doctoral students consistently highlight that those students who do not have an office space on campus, for example, take longer to complete doctoral degrees and/or require a lot more support than those who do have such access (Lovitts & Nelson, 2000). Research assistants are immersed in the academic culture and have the opportunity to observe the academic world closely, being exposed to many research scientists and catching mannerisms from not just advisors but several other academicians which contributes immensely to the development of their academic identity. Highlighting that both advisors and institutions need to consider how to help doctoral students who do not hold research assistantship positions develop as scientists.

While most participants felt the advising process played a positive role in advisees' development as scientists, they discussed this role from an individualistic perspective, with only one participant commenting on the lack of an intellectual habitus and sense of research community in the departments serving as obstacles to the growth of doctoral students. Considering Bourdieu's (1977) concept of "habitus" defined as "a subjective but not individual system of internalised structures, schemes of perception, conception, and action common to all members of the same group or class" (p.86), this result highlights the importance of the role of the advisor to develop a sense of community to contribute significantly and holistically to the growth of doctoral students as scientists (Mackie & Bates, 2019; Sambrook et al., 2008; Schmidt & Hansson, 2018).



The current study was limited to two universities' educational sciences department doctoral students and advisors from the capital city of Türkiye, Ankara. In the future, studies can be conducted by taking one university as a case with the different faculties serving as embedded cases to reveal differences in advisor-advisee relationships in different fields. Despite these limitations, the results reveal important factors for a better understanding and development of advisor-advisee process. Specifically, the study helped reveal the process of socializing the future academics and scientists into the academic career within the framework of individual examples by examining the broader dimensions of the advisor-advisee relationship, which was only dealt with in a narrow scope previously. Through the examination of advisor-advisee relationships in two major research universities, some exemplary practices were identified which have the potential of providing the basis for the development of an effective socializing-oriented consultancy model for advisement. Moreover, these findings can serve as a source to develop supervisor training programs that may help advisors develop the skills necessary to carry out the different advisor roles in the field (e.g., mentor, leader, manager, supervisor, field trainer (habitus), problem solver, career developer) revealed in this study based on the positive and negative advisor-student relationship experiences of the participants. The findings can shed light on the shaping of the policies regarding the training of scientists particularly in research universities, an important dimension of the studies on accreditation and quality assurance.

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