

RESEARCH ARTICLE

Exploring pharmacy students' internship experiences during a five-year pharmacy programme: A qualitative study

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Abstract

Background: Although a comprehensive study on whether the internship practices of pharmacy faculties in Türkiye comply with the standards, no qualitative study has been found on the internship experiences of pharmacy students. This study aimed to obtain information on pharmacy students' internship experiences to improve the quality of undergraduate education and internships. **Methods:** This qualitative study employed an inductive thematic analysis approach. The inclusion criteria for this study, conducted using purposive sampling, included senior pharmacy students who had completed all four semesters of their internships. The participants were 18 senior pharmacy students, and data were collected through semi-structured interviews conducted between May and July 2024. **Results:** Based on the data analysis, three themes emerged: contributions of internships, factors affecting the internship experience, and recommendations. **Conclusion:** This study highlights the importance of internship experiences in shaping pharmacy students' career development and learning processes. The findings suggest that improving internship structure, enhancing pharmacist engagement, and considering students' perspectives may strengthen pharmacy education.

Introduction

Although the role of pharmacists was previously limited to drug distribution, they now serve as first-line health advisors for rational drug use (Wiedenmayer *et al.*, 2006). The qualities of a well-equipped pharmacist include analysing problems, using previously learned information during problem solving, approaching the patient with a solution-oriented approach, understanding and listening to the patient, respecting them and giving importance to their confidentiality, having a team spirit, and exhibiting a proper and honest attitude in the work environment (Nemire & Meyer, 2006).

To ensure that graduates are equipped to provide quality health services, pharmacy students need to be provided with training that will provide them with professional competencies (Gülpınar, 2019). In Türkiye, pharmacy education is structured as a five-

year undergraduate programme. According to national regulations, pharmacists are expected to acquire competencies related to pharmaceutical sciences, including drug composition, pharmacological effects, toxicology, and the ability to evaluate scientific data for professional practice (Official Gazette of the Republic of Türkiye, 02.02.2008).

It is known that good pharmacy education is not only based on the knowledge and skills gained in theory, but also that practical training plays an important role in the formation of professional identity, and that students can more easily transfer what they learn through practical training to life (Gülpınar, 2019). A study has shown that internships have an undeniable place in education. Internships that are carried out correctly, under supervision and with feedback, ensure that the student is more determined and self-confident in terms of their profession after graduation (Yıldız *et al.*, 2022). It has been reported that

theoretical education in pharmacy should be supported by internships so that pharmacists can acquire skills such as problem-solving, innovative thinking, patient-focused progress, and evaluation (Karahan *et al.*, 2023). Internship programmes provide students with the opportunity to develop their real-life experiences, sense of responsibility, and human aspects through their interactions with pharmacists and patients (Fenn III *et al.*, 2019). The main purpose of the internship is to prepare students for their profession. Internships provide students with evidence-based and reliable information faster when solving problems, allow them to easily adapt to teamwork, develop self-confidence, have an advantage in finding a job owing to the experiences they gain, and are more experienced in reflecting the knowledge they have gained in theory into practice (Coşkun *et al.*, 2015; Israel & Smith, 2022). In addition, pharmacy students can gain more comprehensive information about community pharmacies, increase their competence, and further advance health services in pharmacies through internships (Timsina *et al.*, 2017).

Internships increase professional development by enabling students to deal with different problems in different areas of the pharmacy profession and allowing them to experience the realities related to the profession while they are in education (Nisly & Brennan, 2018). The pharmacy profession, with its theoretical and practical aspects, takes place in both hospital and community pharmacies. Community pharmacy internships allow students to learn about community-level health services. This internship deepens students' knowledge by observing pharmacy operations and interactions with users and helps them understand the dynamics of community pharmacies (Timsina *et al.*, 2017). While hospitals provide support to pharmacists with the contribution of interns, interns gain professional satisfaction by gaining practical experience and having the opportunity to apply their theoretical knowledge (Nathan *et al.*, 2011).

In Türkiye, students are required to complete an internship for at least six months before graduating to gain professional competence. These six months are completed in four terms, spread over the five-year education period, in the summer terms before the third, fourth, and fifth years, and in the last term of the final year. Students can complete their internships in community pharmacies, hospital pharmacies, or the pharmaceutical industry (National Pharmacy Education Accreditation Board [ECZAK], 2024).

To train well-equipped pharmacists, undergraduate education should be designed to be both comprehensive and practice-oriented, considering

students' needs and expectations (Gülpınar, 2019). Although previous research has examined the extent to which internship practices in pharmacy faculties in Türkiye comply with established standards (Özçelikay & Zubarioglu, 2022), there remains limited qualitative evidence of how students experience and interpret these internship processes. Given the increasing emphasis on experiential training and the need to enhance the quality of internship programmes in pharmacy education, understanding students' lived experiences is essential for improving educational outcomes and aligning training with contemporary healthcare demands (Hatem, 2023). Therefore, this study aims to explore pharmacy students' internship experiences using a qualitative approach in order to provide deeper insight into experiential learning within the Turkish context.

Methods

Study design

This study employed a qualitative research design to explore pharmacy students' internship experiences. An inductive thematic analysis approach was used to identify patterns of meaning across participants' accounts. This approach is considered appropriate for understanding how students experience and interpret internship processes. (Braun & Clarke, 2019).

Study setting

This study was conducted at a state university in Eastern Türkiye. In Türkiye, it takes five years to obtain a Bachelor of Pharmacy (BPharm) degree. To obtain this degree, students are required to complete four internship periods: a one-month internship in the summer before the third year, a two-month internship in the summer before the fourth year, a one-month internship in the summer before the fifth year, and a two-month internship in the final semester of their senior year. To complete their internships, students complete them in a community pharmacy during the first semester, in a community pharmacy or hospital during the second semester, in a community pharmacy, hospital, or industry during the third semester, and in a community pharmacy and hospital during the fourth semester. Students choose the pharmacy where they will complete their internship for four semesters. All internships are conducted on a full-time basis, independent of coursework. Additionally, during the internship, there is generally a ratio of one pharmacist to two-thirds of the students.

Participants and data collection

Data were collected through in-depth semi-structured interviews conducted between May 2024 and July 2024. A purposive sampling strategy was used to recruit fifth-year pharmacy students who had completed all internship periods and were able to provide rich descriptions of their experiences. A total of 195 students were eligible to participate. Recruitment was voluntary, following completion of the final internship period. Students were informed about the study's purpose and procedures, and those who volunteered participated. A total of 18 students participated and were interviewed sequentially. An interview guide was developed based on the relevant literature (Axon *et al.*, 2020). A pilot interview was conducted prior to data collection, and minor revisions were made to improve clarity. The final version of the interview guide is presented in Appendix A. Interviews were conducted face-to-face in a private and comfortable room within the faculty at times convenient for the participants. All interviews were conducted individually and audio-recorded with participants' consent. The duration of the interviews ranged from 27 to 45 minutes. All interviews were transcribed verbatim by the first researcher, who had 11 years of experience as a pharmacist educator and had received formal training in qualitative research methods. To ensure confidentiality, only the first researcher had access to participants' identifying information, while anonymised transcripts were used for analysis by the research team. Data collection continued until data saturation was achieved. Saturation was reached after 14 interviews, when no new concepts emerged. Four additional interviews were conducted to confirm saturation, resulting in a final sample of 18 participants.

Data analysis

The data were analysed using an inductive thematic analysis approach, following the framework proposed by Braun & Clarke (2019). All interviews were transcribed verbatim and read repeatedly to ensure familiarity with the data. Initial codes were generated inductively from the data without imposing predefined categories. Two researchers independently coded the transcripts to enhance analytical rigour. Any discrepancies in coding were discussed and resolved through consensus. Codes were then grouped into broader categories, and themes were developed by identifying patterns of meaning across the dataset. Throughout the analysis process, attention was paid to preserving participants' perspectives and experiences. The themes were refined through iterative comparison and discussion among the research team to ensure

coherence and consistency. Data analysis was supported using the MAXQDA24 software.

Ethical considerations

This study was approved by the Faculty of Pharmacy at Atatürk University (Approval no.2400310542) and conducted in accordance with the standards of the Declaration of Helsinki. All participants provided written informed consent, and their anonymity and confidentiality were guaranteed throughout the study.

Rigour

The rigour of the study was ensured in accordance with Lincoln and Guba's (1985) criteria of credibility, transferability, dependability, and confirmability. Credibility was supported through prolonged engagement with the data, use of verbatim transcripts, and peer debriefing among the research team. Additionally, member checking was conducted by inviting the participants to review and confirm the accuracy of their statements. Transferability was enhanced by providing detailed descriptions of the study context, participant characteristics, and data collection procedures. Dependability and confirmability were ensured through systematic documentation of the research process and analytical decisions. Two researchers independently coded the data, and discrepancies were resolved through discussion and consensus. Furthermore, an external researcher with qualitative research experience reviewed the selected transcripts and coding to enhance analytical rigour. To minimise potential bias, anonymised transcripts were used during the analysis, and the research team engaged in regular discussions to reflect on the interpretations and ensure consistency.

Reflexivity

The first researcher was a faculty member at the same institution; however, efforts were made to minimise potential power imbalances and social desirability bias. The researcher did not have a direct evaluative role (e.g., grading) over the participants during the data collection period. All interviews were conducted after the completion of the final internship period to reduce the influence of hierarchical relationships. Participants were informed that their responses would remain confidential and would not affect their academic standing. During data collection and analysis, the researcher engaged in reflexive practices, including maintaining awareness of personal assumptions and potential biases and discussing

interpretations with the research team to enhance objectivity.

Results

Demographic characteristics

The participants were 18 senior pharmacy students who volunteered to participate in the study from the school where the study was conducted (Table I).

Table I: Participants' characteristics

Participants ID	Gender	Age (years)	Number of months of internship	Internship setting
P1	Female	22	6	Community pharmacy/Hospital pharmacy
P2	Female	23	6	Community pharmacy/Hospital pharmacy
P3	Female	23	6	Community pharmacy/Hospital pharmacy
P4	Female	24	6	Community pharmacy/hospital pharmacy/ industry
P5	Female	24	6	Community pharmacy/ Hospital pharmacy
P6	Male	23	6	Community pharmacy/ Hospital pharmacy
P7	Female	23	6	Community pharmacy/ Hospital pharmacy
P8	Male	24	6	Community pharmacy/ Hospital pharmacy
P9	Female	23	6	Community pharmacy/ Hospital pharmacy
P10	Female	25	6	Community pharmacy/hospital pharmacy/ industry
P11	Female	24	6	Community pharmacy/ Hospital pharmacy
P12	Male	25	6	Community pharmacy/ Hospital pharmacy
P13	Female	24	6	Community pharmacy/ Hospital pharmacy
P14	Male	25	6	Community pharmacy/ Hospital pharmacy
P15	Female	23	6	Community pharmacy/ Hospital pharmacy
P16	Male	24	6	Community pharmacy/ Hospital pharmacy
P17	Female	24	6	Community pharmacy/ Hospital pharmacy
P18	Female	23	6	Community pharmacy/ Hospital pharmacy

Qualitative

Based on the data analysis, three themes emerged: contributions of internships, factors affecting

internship experience, and recommendations. The representative quotes are presented in Table II.

Table II: Themes and sub-themes

Themes	Sub-themes	Representative statement	N= 18 (%)
1. Contributions of internships	1.1. Career management	<i>"When I did my pharmacy internship, I realised that pharmacy was not for me, or at least that field was not for me. Because it is a somewhat static field. It is like that; yes, what we do may differ for each patient, medications may change, diagnoses may change, but at the end of the day, we open the same place and enter the same place and we continue to have days that repeat themselves in the same way. Because of this, I am not someone who likes to stand still. If we think about my character, I need to be in something like this a little more. I feel like I need to be in it more. Because of that, it could be a laboratory or for example, industry. As I said, when I did my community pharmacy internship, I remember saying, "This place is not for me, I need to be in it more, I need to see that drug more, I need to understand the drug better, or I need to discover it." (S4)</i>	18 (100)
	1.2. Job satisfaction	<i>"We recommended a drug called NSAID group along with collagen to a patient. She was an old lady. After we recommended it to her, she trusted us and bought it, then after 3-4 weeks she came and said "you are a healer, it was very good for me, I want to buy it</i>	9 (50)

Themes	Sub-themes	Representative statement	N= 18 (%)
		<i>again" and that's when I felt professional satisfaction, I mean I was really proud to be a pharmacist." (S2)</i>	
2. Factors affecting internship experiences	2.1. Intern's effort	<i>"I think everyone determines the efficiency of their own internship. I have had great success with most of the internships I have attended. Because I went there with a genuine interest and desire to learn. So if someone is not being productive, I think it is partly because of them." (S9)</i>	2 (11)
	2.2. Issues with patients	<i>"A doctor had prescribed a cream form of a drug for one of our patients, I think, instead of a suppository form. We gave it to him, and he got very angry, and he twisted the cream in front of our eyes, threw it away, and so on. I was really stuck at that moment, so what was going on, and no one from our pharmacy had said anything negative to the man. They had approached him very calmly, saying, 'Sir, it's written like this, change it if you want, we'll give it to you,' but despite that, it upset me to be treated so badly." (S15)</i>	10 (56)
	2.3. Support from pharmacists	<i>"Actually, it depends a little bit on which pharmacy it is done at. Because it can be very productive. I think it depends on the person and the person's pharmacist. It depends on how much they want to get from the pharmacist and how much they get, and how much the pharmacist gives them. During my internship, the pharmacist was always at the pharmacy. He answered every question I asked. That's why it was very productive for me. The pharmacists were also helpful at the hospital, they answered everything we asked about the system etc. So I can say it was productive for me." (S5)</i> <i>"Unfortunately, they didn't let me do anything during my first pharmacy internship. That's why it was very bad for me and I was disappointed because I wasn't satisfied professionally, but I did my internship at a very good place during my second internship. The pharmacist was supporting me and I continued this for 3 months of my own volition. Without any money. And I wanted this because I was satisfied there professionally. I had my own patients and I was involved in everything, so they could give me the responsibility for everything." (S18)</i>	13 (72)
	2.4. Internship in different pharmacies	<i>"Well, I gained a different experience in every summer internship. Because I worked in different pharmacies. Sometimes I had some problems with the pharmacist. Sometimes with the employees, but now I know how to behave. I behave a little bit the way I want to be treated. I set a level. I think it elevated me a lot in terms of experience, and that's why my last term internship was very comfortable for me." (S12)</i>	3 (17)
	2.5. Having/not having knowledge of pharmacology	<i>"Our first internship was a pharmacy internship. I can't say much about the efficiency of my first internship because we did our first internship in the summer of our sophomore year and at that time, we didn't have much knowledge of pharmacology in the courses we took and we couldn't use our knowledge much. In other words, it seemed a little early. On the one hand, it was good in terms of getting used to the pharmacy environment, but we had many deficiencies. We had a lack of knowledge. It just seemed to speed up our adaptation process to the environment. We couldn't use or show our knowledge in a professional sense. In this respect, I can interpret my first internship as such. The efficiency of my hospital internship was good. We were in a hospital environment. We experienced how it works there. I did my last internship in a pharmacy again. Again, being in a pharmacy in the later periods was more valuable for me because I could transfer all my knowledge." (S3)</i>	4 (22)
3. Recommendations	3.1. Encouraging pharmacists to teach	<i>"Maybe pharmacists can be informed. For example, we go and ask, we need to learn these things, etc. There are some pharmacists who are not interested and do not teach. For example, the faculty administration can talk to them and tell them to inform the students about these issues." (S11)</i>	4 (22)
	3.2. Extension of the internship duration	<i>"Perhaps the internships in the 5th grade can be extended a little. That is, we can go for a longer period. Because it is really short and I only did my hospital internship in the 5th grade. If you ask me, "What did you see, did you see very good things or very bad things?" I can only say, "What can I see in 9 days?" So maybe the period can be extended. For example, instead of nine days, you can go for 15 days. It can be 15 working days." (S4)</i>	5 (28)
	3.3. Academy internship	<i>"Academics is also a field of study for us. We have industrial internships, hospital internships, pharmacy internships, but there are also those who want to be in academia. We need to see this in its context somehow. For example, this year I had the opportunity to work in a laboratory because I wrote TÜBİTAK. If I hadn't written, I would have progressed in a department that didn't have a laboratory, but I wanted a laboratory. I wouldn't have been able to see one. I was also able to exist in the laboratory through my own efforts. It would have been good if this opportunity had been given in terms of internships as well." (S3)</i>	2 (11)

Theme 1: Contributions of internships

Participants described internships as meaningful experiences that contributed to their professional development in several ways. In particular, they emphasised that internships influenced their career decision-making and contributed to their sense of professional satisfaction.

Career management

All participants reported that their internship experience influenced their future career plans. While some participants indicated that their internships reinforced their initial career preferences, others reported that these experiences led them to reconsider or change their intended professional direction. Several participants highlighted that their internship experience played a decisive role in identifying their preferred field of practice.

Job satisfaction

Approximately half of the participants described experiencing a sense of professional satisfaction during their internships, particularly in relation to patient interactions. This sense of satisfaction was often associated with communicating with patients, providing assistance, and receiving positive feedback.

Theme 2: Factors affecting internship experiences

Participants were asked to reflect on the extent to which their internships were productive and meaningful. Their responses revealed several interrelated factors that shaped the quality of their internship experience. These factors included individual effort, patient-related challenges, pharmacist support, exposure to different pharmacy settings, and prior pharmacological knowledge.

Intern's effort

A small number of participants emphasised the role of personal effort in shaping their internship experiences. These participants reported that being curious, actively asking questions, and engaging in the pharmacy environment contributed to more productive learning experiences. According to these participants, such active engagement enhanced the overall effectiveness of their internships.

Issues with patients

More than half of the participants reported experiencing challenges in their interactions with their patients. These challenges were often related to

patients' negative attitudes, including frustration or dissatisfaction, which affected the communication process.

Support from pharmacists

Most participants emphasised that the quality of their internship experience was strongly influenced by the level of support provided by pharmacists. Some participants reported that pharmacists actively supported them by involving them in pharmacy operations and treating them as future professionals. In contrast, others described limited pharmacist engagement, indicating that they received little guidance or structured learning support.

Internship in different pharmacies

The small number of participants highlighted the benefits of completing internships in different pharmacy settings. Participants reported that completing internships in different pharmacies enabled them to observe different work environments and practices.

Having/not having knowledge of pharmacology

A small number of participants indicated that their pharmacological knowledge influenced their internship experience. Participants noted that their limited prior knowledge, particularly during early internships, reduced their confidence and engagement. They also reported that increased pharmacological knowledge in later stages contributed to greater confidence and more effective participation.

Theme 3: Recommendations

When asked to provide suggestions for improving internship experiences, the participants identified several areas for development. The participants suggested that pharmacists should be encouraged to take on more active instructional roles.

Encouraging pharmacists to teach

A small number of participants emphasised the importance of structured guidance from pharmacists. They suggested that faculty members should provide guidance to pharmacists regarding students' learning objectives and expected competencies.

Extension of the internship duration

Some participants expressed concerns about the duration of internships. They suggested that longer

internship periods, particularly in the final year, could enhance learning outcomes.

Academy internship

A few participants proposed the introduction of academic internship opportunities. These participants indicated an interest in academic pharmacy and suggested that structured opportunities in academic settings could support this career pathway.

Discussion

This study investigated pharmacy students' internship experiences during their five-year education. This study revealed the factors affecting internships, their contributions, and suggestions regarding internships.

In this study, students stated that their internships contributed to career management and shaped their future work areas. These findings suggest that internships may support students in making career-related decisions and developing professional competencies. It has been reported that internships can facilitate students' access to evidence-based information, improve teamwork adaptation, enhance self-confidence, and support the application of theoretical knowledge in practice (Coşkun *et al.*, 2015). Similar to this study, in the hospital-based pharmacy internship programme launched in Jordan in 2019, the participation and professional support of pharmacist educators in the hospital were beneficial in terms of the interns' understanding of work-related regulations, mastery of policies and related procedures, and helped the interns shape their experiences and plan their careers (Abublan *et al.*, 2019). Likewise, in a multi-centre qualitative study conducted by Yao and colleagues in 2022, students reported improvements in communication skills, learning abilities, and career awareness (Yao *et al.*, 2022).

The students in this study expressed that they experienced a sense of professional satisfaction during their internship. This finding is parallel to the results of a survey conducted by Strawbridge *et al.* in Ireland in 2019, which reported that 92.5% of intern pharmacy students perceived that the internship enabled them to develop the knowledge, skills, and general competencies required for pharmacy practice and therefore increased their professional satisfaction (Strawbridge *et al.*, 2019).

In this study, a small number of students emphasised the importance of their efforts. Previous studies suggest that a student's willingness and enthusiasm for

an internship increases the quality of the internship (Yıldız *et al.*, 2022).

In this study, most students emphasised the importance of support from pharmacist trainers. These findings suggest that trainer support may play an important role in shaping internship experiences. The literature indicates that trainer pharmacists contribute to skill development by providing feedback, facilitating adaptation to the work environment, and supporting professional growth (McDonough & Bennett, 2006). It is seen as one of the initiatives to increase the quality of internships that colleagues at the institution where the internship is conducted take care of the student and provide the necessary competence (Yıldız *et al.*, 2022). Similarly, previous studies have highlighted that supportive training environments and active student engagement may enhance internship outcomes (Fenn III *et al.*, 2019; Karahan *et al.*, 2023). In addition, internship participants stated that they experienced some difficulties in the transition from student life to professional life, that there were different expectations in business life, and that business life required more responsibility than taking exams (Yıldız *et al.*, 2022). Communication between trainers and students is important for increasing the efficiency of internships. Trainers should communicate more with interns, show the necessary interest, and provide the appropriate environment for interns to reach the necessary competence and form a foundation (Lu *et al.*, 2024).

In this study, some students reported that their early internship experiences were not sufficiently productive, which they attributed to their limited engagement and insufficient guidance. This may indicate variability in internship quality across settings. Similarly, Yao and colleagues reported that some students experienced difficulties adapting to the demands of internship training (Yao *et al.*, 2022).

In this study, pharmacy students expressed suggestions to improve the quality of internships. For example, some participants suggested encouraging pharmacists to take a more active educational role. Previous studies have also highlighted the importance of supervision and support in enhancing students' confidence and learning experiences (Graudins & Dooley, 2016). Similarly, in the study by Strawbridge and colleagues, issues such as patient interaction and supervisor support were named as the "best things". Pharmacy faculties play an important role in optimising students' learning during their internships through the goals and strategies they set (Strawbridge *et al.*, 2019).

One of the suggestions expressed by pharmacy students was to extend the internship period, as some participants perceived the duration to be insufficient. Consistent with these findings, Timsina and colleagues

reported that internship education may benefit from being distributed over a longer period because of the intensity of practical training and learning activities (Timsina *et al.*, 2017). Similarly, Foppa and colleagues observed that less time was allocated to internships than to theoretical courses in pharmacy undergraduate programmes (Foppa *et al.*, 2020). These findings suggest that the duration and structure of experiential education may influence students' learning experiences. Previous literature has highlighted the importance of experiential learning in developing professional competencies. In this context, strategies such as curriculum mapping, structured rotations, and feedback mechanisms have been suggested to support internship programmes (Hatem, 2023).

Finally, a small number of students suggested integrating academic pharmacy as a potential internship area. Academic pharmacy has become the preferred option because of restrictions on opening community pharmacies in Türkiye (Ministry of Health, 2012). Therefore, as emphasised by the students, it would be beneficial to evaluate academic pharmacy within the framework of internship practices.

Limitations

This study provides insights into the internship experiences of pharmacy students in Türkiye; however, several limitations should be acknowledged. First, the study was conducted at a single institution in Eastern Türkiye, which may limit the transferability of the findings to other educational settings. In addition, the sample was relatively small and homogeneous, as all participants were senior pharmacy students from the same institution, which may not fully capture the diversity of internship experiences. Although this study offers an initial understanding of pharmacy students' internship experiences in Türkiye, the findings should be interpreted within this specific context and cannot be generalised to a broader population. Another limitation of this study is the potential influence of the researchers' dual role as faculty members. Despite conducting the interviews after the final internship period and assuring participants of confidentiality, the pre-existing faculty–student relationship may have influenced participants' openness. This may have introduced social desirability bias, with participants potentially shaping their responses according to perceived expectations. Efforts were made to minimise this effect through bracketing and by emphasising that participation was voluntary and unrelated to academic evaluation.

Conclusion

This study provides insights into how pharmacy students experience internships throughout their education within the Turkish context. The findings indicate that internships contribute to students' career development, professional satisfaction, and engagement with practice. At the same time, the quality of these experiences appears to vary depending on factors, such as pharmacist support, patient interactions, and learning opportunities, within different practice settings. Students particularly emphasised the role of pharmacist support and the value of experiencing different pharmacy environments. Some participants also highlighted the potential benefits of extended internship periods and increased exposure to academic pharmacy; however, these views were expressed by a limited number of participants and should therefore be interpreted with caution. Overall, the findings suggest that strengthening supervision, clarifying expectations, and supporting student engagement may contribute to more consistent and meaningful internship experiences. From an educational perspective, these findings highlight the importance of structured guidance and mentorship. At the policy level, clearer and more standardised internship frameworks may help reduce variability across practice settings. These results may inform future efforts to improve pharmacy education and internship practices.

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Conflict of interest

No potential conflict of interest was reported by the author(s).

Ethics approval and informed consent

This study was approved by the Atatürk University Faculty of Pharmacy (Approval no.2400310542) and was conducted in accordance with the standards set forth by the Declaration of Helsinki. All participants provided written informed consent, and their anonymity and confidentiality were guaranteed throughout the study.

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Appendix A. Interview questions

1. Can you describe the areas of pharmacy where you have completed your internships?
2. How would you evaluate the efficiency or usefulness of your internship experiences? Can you explain why you feel that way?
3. Could you share any memorable or significant experiences you had during your internships in pharmacies?
4. Which area of pharmacy are you currently most interested in working, and what are the reasons for your preference?
5. In what ways, if any, did your internship experiences influence your thoughts or decisions about the area of pharmacy you wish to pursue?
6. What are your suggestions for improving the quality and educational value of pharmacy internships?
7. Is there anything else you would like to share about your internship experiences that we haven't discussed?