Exploring Oncology Pharmacy Awareness: A Nationwide Study Among Pharmacy Students in Türkiye

Doga Gorkem Erdogan, Songul Tezcan, Fatih Taha Ciftci
Marmara University, Faculty of Pharmacy, Clinical Pharmacy Department, Istanbul, Turkey

Background

As a key component of cancer care, oncology pharmacy contributes significantly to treatment optimization and patient safety. Evaluating pharmacy students' awareness and understanding of this field can help identify educational deficiencies and support the development of oncology-focused pharmacy education in Türkiye.

Objective(s)

The aim of this study is to assess the level of knowledge and awareness of oncology pharmacy among pharmacy students in Türkiye, determine their educational needs, and develop recommendations for enhancing oncology pharmacy education in undergraduate pharmacy curricula.

Reference(s)

1.Ledbetter E, Lau S, Enterline A, Sibbitt B, Chen AMH. A Simulation Activity to Assess Student Pharmacists' Knowledge and Perceptions of Oncology Pharmacy. Am J Pharm Educ. 2020;84(5):7474. doi:10.5688/ajpe7474

2. Chamala S, Maness HTD, Brown L, Adams CB, Lamba JK, Cogle CR. Building a precision oncology workforce by multidisciplinary and case-based learning. BMC Med Educ. 2021;21(1):75. Published 2021 Jan 26. doi:10.1186/s12909-021-02500-6

Methods

Prospective, cross-sectional study of pharmacy students (Years 1–5) from 62 pharmacy faculties across Türkiye.

Researcher-developed 27-item online questionnaire, based on the literature [1,2], administered once.

The questionnaire included sociodemographic characteristics (6 items) and oncology pharmacy knowledge/awareness (21 items).

Data were collected March-June 2025 after ethics approval (09.2025.25-0226), with informed consent from all participants.

Responses were analysed descriptively using SPSS 15.0 (95% CI; $p<0.05$).

Discussion

The study included 134 participants from 62 faculties. The median age was 22 years (range: 18–32). The majority were fourth-year students

Seventy-one percent of students reported that the pharmacy curriculum included a total of 1–5 hours of education related to oncology pharmacy (Fig. 1).

While 81% of students identified oncology pharmacy as a specialization within clinical pharmacy, only 25% were aware of its recognition as an international specialty program.

Approximately 35% of participants expressed an interest in oncology pharmacy, and 90% indicated a desire for further education on oncology pharmacy. Notably, 42% had no compulsory or elective oncology course in their curriculum, while 92% preferred more hands-on, interactive methods such as simulation and case-based learning.

Half of the students (52%) stated that "pharmacists play a vital role" in the multidisciplinary oncology team, while the remainder acknowledged the pharmacist's role as "important".

Seventy-seven percent of students indicated that the provision of internship opportunities would increase students' interest in oncology pharmacy (Fig. 3).

Fifty-one percent of students stated that specialised training activities for pharmacists would enhance public awareness of oncology pharmacy (Fig. 2).

Results / Conclusion

This study highlights strong student interest in oncology pharmacy in Türkiye alongside clear gaps in awareness and formal training. Most students value the pharmacist's role in cancer care, yet few recognise it as a formal specialty and almost all want further education. Embedding structured, practice-oriented oncology content, internships and mentorship into undergraduate curricula would better prepare pharmacists for cancer care.

134 students surveyed, 62 faculties
90% want further oncology training
42% had no oncology course

Fig 1. Total course hours of oncology pharmacy in the pharmacy curriculum

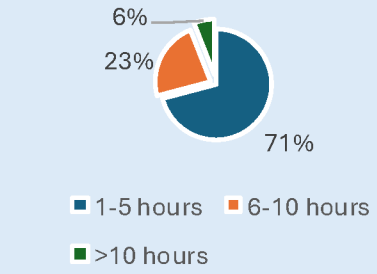


Fig 2. Students' opinions on raising public awareness of oncology pharmacy

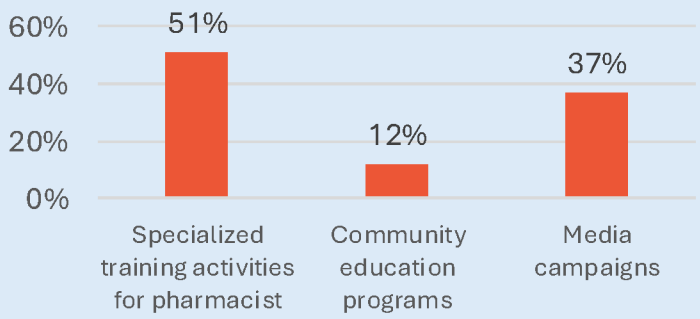


Fig. 3. Evaluation of students' opinions on increasing interest in oncology pharmacy

