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ORIGINAL ARTICLE

Jordanian community pharmacists' perceptions and experiences with continuing professional development – A comprehensive analysis

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Abstract

Continuing professional development (CPD) is a process by which healthcare professionals, including pharmacists, can be engaged in life-long learning and development. In 2018, the Jordanian government issued Regulation No. 46, which addresses the CPD and relicensing cycle requirements. This study aims to investigate Jordanian community pharmacists' experiences and perceptions toward CPDs. The study also discussed factors influencing pharmacists' engagement in CPD activities. An online self-administered questionnaire was distributed between August and October of 2022 using a range of participant identification and recruitment strategies. The questionnaire was designed for community pharmacists who are currently in practice. Descriptive data analysis was carried out. Of the 425 participating community pharmacists, 270 (63.5%) had a positive attitude toward CPD in terms of considering CPD to be a professional responsibility for all practising pharmacists. Almost 50% of recruited community pharmacists had no preference between theoretical and practical activities. Moreover, carrying out research projects and participating in research groups were the least preferred CPD activities. Evidence indicates that the most influencing factors were feasibility and capacity-related issues such as time, cost, work burden and requirements and the logistics related to CPD activities. Regulators, professional associations, and legislators are responsible for planning and implementing actions that reduce obstacles and increase facilitators. CPD activities should also be made available through various delivery methods and strategies to guarantee relevance, prevent duplication, and promote pharmacists' involvement.

KEYWORDS
community pharmacists, CPD, CPD influencing factors, Jordan, training activities

Abbreviations: BPharm, Bachelor of Pharmacy; CPD, Continuing Professional Development; CPE, Continuing Professional Education; FIP, The International Pharmaceutical Federation; GADF, Global Advanced Development Framework; HCP, Healthcare Professional; JPA, Jordanian Pharmacists Association; MoH, Ministry of Health; N, number; PharmD, Doctor of Pharmacy.

1 | INTRODUCTION

The Jordanian pharmacy profession faces several challenges related to the educational system, the current scope of practice, and the relatively high density of pharmacists, estimated to be 9.8 pharmacists per 10000 people in 2019.[1,2] Moreover, Jordanian community pharmacists, the largest pharmaceutical sector in Jordan, are challenged by the need for a formal competencies recognition scheme and career ladder.[1] Over the years, several initiatives and programs have been designed to address the profession's challenges and enhance its overall status. In terms of formal educational programs, in late 2019, the Jordanian Accreditation and Quality Assurance Commission for Higher Education Institutions introduced competency-based pharmacy academic programs, Bachelor of Pharmacy (BPharm) and Doctor of Pharmacy (PharmD).[3] The framework was designed to reform pharmacy educational programs and graduate pharmacists who are sufficiently competent and qualified to practice immediately after graduation.[4]

Regarding the profession, in 2019, the Jordanian Pharmacists Association (JPA) signed an agreement with the International Pharmaceutical Federation (FIP) to adopt and adapt the FIP Global Advanced Development Framework (GADF).[5,6] Moreover, in 2020, the Jordanian Ministry of Health (MoH) authorized community pharmacists and pharmacies to deliver seasonal influenza vaccination services if they meet the requirements.[7] Lastly, the Jordanian MoH led an initiative to introduce continuing professional development (CPD) and relicensing requirements for allied healthcare professionals, including pharmacists.[8,9] All these initiatives were introduced to ensure that Jordanian pharmacists are ready for role expansion and to lead the profession nationally and regionally.

The pharmacy profession has witnessed a shift from the classical role of a pharmacist as a medications compounder and dispenser to a medication expert and healthcare service developer and provider, particularly in the primary care sector, where population healthcare needs have escalated significantly in recent years. This expansion and shift in role mandates pharmacists, regardless of their practice sector, to develop their skills, competencies and knowledge. Moreover, the role expansion requires pharmacists to remain contemporary with all new medical and pharmaceutical care updates, technological advancements and new legislative and legal aspects of the profession. The shift in service focus and the more profound and heavier involvement of pharmacists in patient care and direct-to-patient services also means a shift in the ethical and legal framework and considerations.[10] Pharmacists are now expected to comply with the bioethical framework of "principlism." This framework, which guides medical practice, including pharmacy practice, is based on four core principles: autonomy, justice, beneficence and non-maleficence.[11] While the first two principles can be directly and relatively easily detected and verified, the last two, beneficences and non-maleficence, are explicitly and implicitly manifested. Beneficences and non-maleficence require that healthcare providers, including pharmacists, are competent, sufficiently qualified, and aware of the most recent medical and practice guidelines.[11]

Continuing professional development (CPD) is one of the principal approaches by which healthcare professionals can update and improve their practices and clinical governance. As a concept, CPD is defined as "a process of self-directed, ongoing, systematic and outcomes-focused approach to lifelong learning for all individuals and teams which meets the needs of patients and delivers the health outcomes and healthcare priorities of the national healthcare services and which enables professionals to expand and fulfil their potentials."[12,13] As a process, CPD is a cycle that enables the participant to consider their needs, plan the learning and development activities, act by completing them, and then reflect on how these activities have affected their practice.[14]

As a concept, CPD was introduced and implemented in Western countries, such as the United States and the United Kingdom, in early 2002.[15] However, despite being a focal aspect of professional development and pharmaceutical practice, the CPD process was recently introduced and mandated by healthcare systems worldwide, including Middle Eastern Countries.[14–16] Jordanian Government Regulation Number 46,[8] which addresses the conditions for healthcare professionals' license renewals, was released in 2018. According to the bill and the following directives, pharmacists, like other healthcare professionals, must complete 50 units of CPD over five years, regardless of their practice sector. As per the law, non-abiding healthcare professionals might lose their license to practice in Jordan.[8] According to the legislative bill, CPD credit units might take many forms, such as participating in research projects, attending conferences and seminars, and participating in training sessions.[8,9] The CPD activities are usually authorized and accredited by different professional bodies such as professional associations and the High Health Council. To maintain their license, pharmacists need to plan their CPD activities to achieve at least ten CPD units per year and 50 units over five years. At the end of each licensing cycle, each pharmacist should submit a CPD profile, which will be reviewed and approved by the JPA.[8,9]

Community pharmacy practice is the largest pharmaceutical sector in Jordan; therefore, it is valuable to capture community pharmacists' perceptions, attitudes, and experiences with CPD engagement. It is also necessary to understand the principal factors influencing community pharmacists' engagement in CPD activities that contribute to mandatory relicensing requirements.

1.1 | Research aim and objectives

This study investigated Jordanian community pharmacists' perceptions and attitudes toward CPD. The study's aim could be achieved through the following objectives:

1. Assessing community pharmacists' attitudes toward CPD;
2. Investigating preferred approaches and delivery mode and mechanisms of CPD activities and training events;

3. Identifying factors that could influence community pharmacists' engagement in CPD activities.

2 | METHODS

2.1 | Study design

This cross-sectional study targeted Jordanian community pharmacists. The JPA database, social media sites, JPA regional committees, JPA community pharmacies committee, and JPA CPD committee were used to identify and contact eligible participants who were community pharmacists in active practice. Additionally, the research team approached and recruited eligible participants by relying on their connections.

2.2 | Study settings and participants

Any currently practising community pharmacist in Jordan was eligible to participate in this study. According to JPA records, there are 7525 registered community pharmacists in Jordan. As a result, it was determined that 366 samples would provide sufficient power for conducting bivariate and multivariable analysis. The sample size was determined based on a 50% expected frequency and a 5% confidence limit.

2.3 | Questionnaire design

The research team developed the questionnaire instrument based on the study's aim and objectives, the available pertinent literature,[17-23] and the input from the JPA CPD Committee and Training and Development Department, senior community pharmacists and JPA training coordinators. The first draft of the survey instrument was reviewed by six academics and researchers with expertise in pharmacy practice and two experts in human resources development and training. The reviewers assessed the instrument's content and face validity in terms of accuracy and clarity of terminology and language used, relevance to the study's aim and national practice, comprehensiveness, suitability of scale used, and ease of answering the questionnaire. The first draft of the questionnaire was updated and revised as suggested and counselled. Following the reviewers' evaluation, the questionnaire's comprehensiveness, readability, and flow were evaluated in a pilot study involving a sample of 13 community pharmacists. The results of the pilot study were not included in the final analysis.

The final questionnaire instrument consisted of eleven questions grouped into five groups: the first group captured the participant's demographics and employment status. The second group assessed community pharmacists' perceptions toward CPD. The third group investigated preferred training approaches and activities. The fourth group investigated factors influencing participation in CPD activities.

2.4 | Survey distribution and data collection

Using the Qualtrics XM® platform, the validated and piloted questionnaire instrument was disseminated and published between August and October 2022.[24] The survey link was distributed to Jordanian practising community pharmacists via social media posting, text, WhatsApp, and email. The research team employed multiple strategies for participants identification and recruitment, including (i) reaching out to eligible individuals directly, (ii) inviting them to participate via social media platforms of the JPA and its affiliated committees, and (iii) reaching out to community pharmacists via the chairs of JPA regional committees on behalf of the research team.

2.5 | Statistical analysis

The collected data were extracted and logged in an Excel® workbook (Microsoft Office MS, 2013), which was used for data cleaning, coding, and grouping.

Participants' perceptions and attitudes toward CPD were assessed using a five-point agreement Likert scale (strongly agree to strongly disagree). The scale was subsequently converted into a three-point ordinal scale to facilitate data analysis. Accordingly, the first two categories (strongly agree and agree) were grouped into one (agree), the last two categories (strongly disagree and disagree) were grouped into one (disagree), and the intermediate scale (neutral) was left as it was.

Descriptive analysis, using standard deviation, percentages, and frequencies, was used. A *z*-test was also conducted to investigate any noteworthy variations between the participant categories. Only completed surveys were taken into account for reporting and analysis.

2.6 | Ethical consideration

This study was reviewed and approved by the Institutional Review Board of Yarmouk University (Reference No: RD/119/12/3740).

3 | RESULTS

3.1 | Participants characteristics and employment details

The survey was completed by 425 community pharmacists over three months of data collection. The response rate could not be determined, as open electronic distribution and social media posting were the primary distribution methods.

Out of the 425 participants, 282 (66.4%) were female pharmacists, and more than 50% were young pharmacists, 35 years old or younger. 251 (59.1%) of participating pharmacists resided in Amman. Approximately two-thirds of the participants were employees, whether full-time or part-time. Finally, 283 (56%) participants had ten years or less of experience, Table 1.

3.2 | Participants attitudes and perceptions toward CPD

Emerging evidence showed that 270 (63.5%) community pharmacists had a positive attitude toward CPD. They not only consider CPD as a professional responsibility for all practicing pharmacists but also show

TABLE 1 Participants' demographics, characteristics, employment details, and training history.

Investigated attributes	Participants' group		
	Female participants *N* (%)	Male participants *N* (%)	Overall study participants *N* (%)
Demographics and characteristics			
Number of participants	282 (66.4%)	143 (33.6%)	425 (100%)
Participants' age group			
21–25	54 (19.1%)	15 (10.5%)	69 (16.2%)
26–30	74 (26.2%)	21 (14.7%)	95 (22.4%)
31–35	36 (12.8%)	15 (10.5%)	51 (12.0%)
36–40	32 (11.3%)	22 (15.4%)	54 (12.7%)
41–45	37 (13.1%)	25 (17.5%)	62 (14.6%)
46–50	27 (9.6%)	15 (10.5%)	42 (9.9%)
51–55	15 (5.3%)	21 (14.7%)	36 (8.5%)
56–60	4 (1.4%)	5 (3.5%)	9 (2.1%)
61–65	3 (1.1%)	3 (2.1%)	6 (1.4%)
Older than 65	0 (0.0%)	1 (0.7%)	1 (0.2%)
Region			
Northern	62 (22.0%)	22 (15.4%)	84 (19.8%)
Middle	200 (70.9%)	114 (79.7%)	314 (73.9%)
Southern	20 (7.1%)	7 (4.9%)	27 (6.4%)
Qualifications			
Degree			
BPharm	260 (92.2%)	134 (93.7%)	394 (92.7%)
PharmD	22 (7.8%)	9 (6.3%)	31 (7.3%)
Years of experience			
Less than 1 year	47 (16.7)	6 (4.2)	53 (12.5%)
1–5 years	87 (30.9)	26 (18.2)	113 (26.6%)
6–10 years	55 (19.5)	17 (11.9)	72 (16.9%)
11–15 years	27 (9.6)	29 (20.3)	56 (13.2%)
16–20 years	26 (9.2)	24 (16.8)	50 (11.8%)
21–25 years	24 (8.5)	15 (10.5)	39 (9.2%)
26–30 years	13 (4.6)	10 (7.0)	23 (5.4%)
More than 30 years	3 (1.1)	16 (11.2)	19 (4.5%)
Employment details			
Employment status			
Full-time employee	132 (46.8%)	56 (39.2%)	188 (44.2%)
Part-time employee	74 (26.2%)	16 (11.2%)	90 (21.2%)
Pharmacy owner	76 (27.0%)	71 (49.7%)	147 (34.6%)
Type of community pharmacy			
Independent	208 (73.8%)	109 (76.2%)	317 (74.6%)
Chain	74 (26.2%)	34 (23.8%)	108 (25.4%)

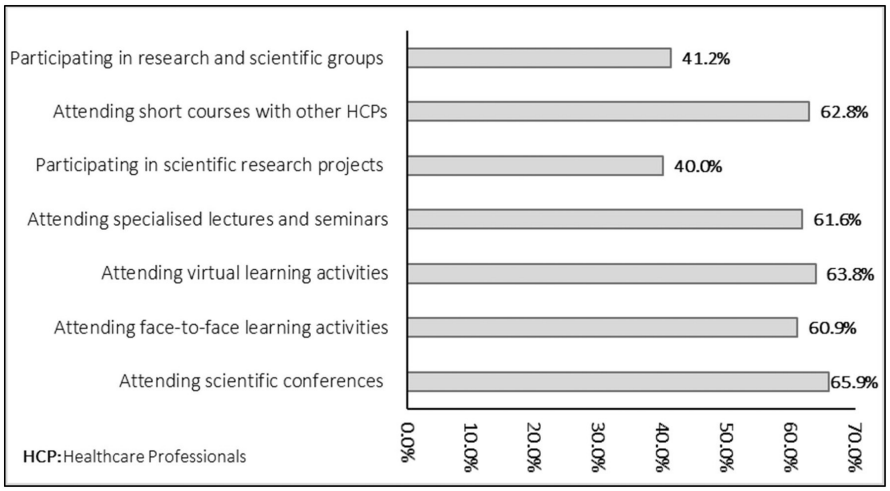
Abbreviations: BPharm, Bachelor of Pharmacy; N, Number; PharmD, Doctor of Pharmacy.

TABLE 2 Community pharmacists' perceptions and attitudes toward CPD.

Statement	Agree *N* (%)	Neutral *N* (%)	Disagree *N* (%)
I can determine my training needs	336 (79.1%)	69 (16.2%)	20 (4.7%)
I am willing to participate in CPD activities	363 (85.4%)	44 (10.4%)	18 (4.2%)
I can achieve 50 units of CPD over 5 years, at a rate of 10 units/year	292 (68.7%)	74 (17.4%)	59 (13.9%)
I have sufficient financial resources to achieve my personal CPD goals	164 (38.6%)	118 (27.8%)	143 (33.6%)
Work challenges encourage me to participate in various training activities	282 (66.4%)	79 (18.6%)	64 (15.1%)
CPD is a professional responsibility for all pharmacists	383 (90.1%)	20 (4.7%)	22 (5.2%)
CPD improves the quality of services provided to the patients	393 (92.5%)	17 (4.0%)	15 (3.5%)
CPD could help me achieve my professional development goal	368 (86.6%)	36 (8.5%)	21 (4.9%)
The currently available CPD opportunities do not meet my work requirements	228 (53.6%)	123 (28.9%)	74 (17.4%)
The JPA must support pharmacists to attain 50 units of CPD	389 (91.5%)	22 (5.2%)	14 (3.3%)
The JPA should endeavour to provide a clear training program for pharmacists	401 (94.4%)	11 (2.6%)	13 (3.1%)
My direct manager encourages me to participate in CPD activities	284 (66.8%)	74 (17.4%)	67 (15.8%)

Abbreviations: CPD, Continuing Professional Development; JPA, Jordanian Pharmacists Association; N, Number.

FIGURE 1 Preferred CPD activities.



a strong willingness to participate in CPD-related activities and complete 50 credit units of CPD in five years. Additionally, the vast majority, 386 (91.5%) community pharmacists, believed that the JPA should actively play a role in CPD by supporting and encouraging pharmacists and offering programs and infrastructure to implement CPD-related activities. Lastly, almost 30% of the research participants agreed that work-related considerations could influence their engagement in CPD activities, such as work challenges, support provided by the pharmacy manager or owner and the mismatch between offered CPD activities and community pharmacists' job requirements, Table 2.

Investigating preferred CPD activities and approaches revealed that 203 (47.8%) of participating community pharmacists had no preference between theoretical and practical activities. Moreover, carrying out research projects and participating in research groups were the least preferred CPD activities, Figure 1.

3.3 | Factors influencing pharmacists in engagement in CPD activities

There are several internal and external factors, such as organizational support, regulatory frameworks, and technological infrastructure, that influence professionals' engagement in CPD activities and compliance with relicensing requirements. Results show that 70% or more of the research participants found all investigated factors influential. Additionally, results indicate that the most influencing factors were related to feasibility and capacity issues such as time, cost, work burden and requirements and the readiness of the places where CPD activities are held, Table 3.

3.4 | Role and characteristics-based comparison

A comparison between young pharmacists, 35 years old and younger, and senior pharmacists, older than 35 years old, showed that young pharmacists had a significantly more positive attitude toward CPD in terms of willingness to participate in CPD activities, perceiving CPD as pharmacists' professional responsibility and lastly considering CPD as a tool for improving quality of provided services (p-value = .0074). In theory, there might be differences between young and senior pharmacists in the availability of financial resources and time to engage in CPD activities. However, research evidence showed no significant differences between participating young and senior pharmacists in these factors.

TABLE 3 Factors influencing community pharmacists' engagement in CPD activities.

Factor	Influential *N* (%)	Not influential *N* (%)
Support provided by the JPA (logistics-wise)	313 (73.6%)	112 (26.4%)
Support provided by the employer or direct manager	348 (81.9%)	77 (18.1%)
Support from colleagues in the workplace	341 (80.2%)	84 (19.8%)
The amount of work assigned to you	398 (93.6%)	27 (6.4%)
Time needed for CPD activities to be completed	392 (92.2%)	33 (7.8%)
The financial cost of participating in CPD activities	387 (91.1%)	38 (8.9%)
The readiness of the places where CPD activities are held	394 (92.7%)	31 (7.3%)
The language used during CPD activities	338 (79.5%)	87 (20.5%)
The approach[a] used during CPD activities	388 (91.3%)	37 (8.7%)
CPD activities executors and organizers	363 (85.4%)	62 (14.6%)

Abbreviations: CPD, Continuing Professional Development; JPA, Jordanian Pharmacists Association; N, Number.

[a]Practical or theoretical approach.

Chain pharmacies are often known for having an established structure for human resources training and development compared to independent pharmacies. The comparison between pharmacists working at chain community pharmacies and those working at independent pharmacies showed no significant differences between the two groups regarding affordability, time, and available support.

One might assume that pharmacy owners, with their access to financial resources, flexible schedules, and specific requirements, would face fewer times and cost-related constraints in engaging in CPD activities. However, this study's results were surprising. It was found that both owners and employees face the same challenges, with no significant differences between the two groups.

4 | DISCUSSION

In order to ensure up-to-date and evidence-based medical practice, healthcare professionals, including pharmacists, are required to be actively engaged in CPD activities. This study explores Jordanian community pharmacists' attitudes and perceptions regarding CPD. The study was designed to identify the training methods and activities preferred by community pharmacists and any variables that might affect how often they participate in CPD. Eligible participants were approached and recruited from various community pharmacy settings to ensure that different practice environments, geographic locations, and demographic traits were represented. Extensive data analysis was used to obtain significant insights from captured data.

A total of 425 community pharmacists responded to the three-month survey, which yielded insightful details about the state of CPD in Jordan today. The study was based on an online survey instrument that captured data and details related to participants' employment details, their perceptions toward CPD, preferred training approaches and activities and factors influencing participation in CPD activities.

In theory, attitude could guide and shape individuals' behaviours; therefore, it could be considered the most influential intrinsic factor. Similar to studies from other healthcare systems and countries,[25] the results of the current study showed that even though CPD and relicensing regulation are relatively recent, the abundance of community pharmacists had a positive attitude toward CPD, were willing to engage in its related activities, and perceived CPD as a professional obligation. The positive attitude, especially among young pharmacists, could lead to the rapid integration of CPD activities into day-to-day practice and the normaliation of lifelong learning among community pharmacists.

In addition to attitude, pharmacists' engagement in CPD activities and compliance with CPD and relicensing requirements are influenced by a number of extrinsic and intrinsic factors.[25] While intrinsic factors are self-based, extrinsic factors are related to the surrounding environment and structure that influence pharmacists' engagement in CPD. However, a closer look at the intrinsic and extrinsic influencers reveals how these factors overlap and affect each other. Therefore, policymakers and pharmacy profession leaders need to understand how these factors overlap and influence each other in designing and implementing related interventions or programs. Tailored interventions should address both factors and engineer the interaction between these factors in a way that facilitates pharmacists' engagement in CPD activities.

When assessing the impact of factors related to capacity, professional considerations, the type and nature of CPD activities, and CPD logistics and arrangements, it becomes clear that these factors are not independent of each other. Evidence from this study shows that considerations related to the CPD receiver, CPD provider, and employer were perceived to be highly influential by Jordanian community pharmacists. This understanding of the interplay of influencing factors is crucial for designing effective CPD programs, Figure 2.

Similar to pharmacists and healthcare professionals in other countries and healthcare systems,[26–28] Jordanian pharmacists' engagement in CPD activities is influenced by factors related to capacity, the pharmacist's ability to achieve the relicensing cycle requirements and complete needed CPD units. While capacity is hindered by time restraints and affordability of CPD activities at a personal level, it is influenced by factors manifested as the overall workload and manager's support at the workplace and employer level. Lastly, capacity is also determined by elements related to the JPA's support, current legal framework and CPD activities organizers

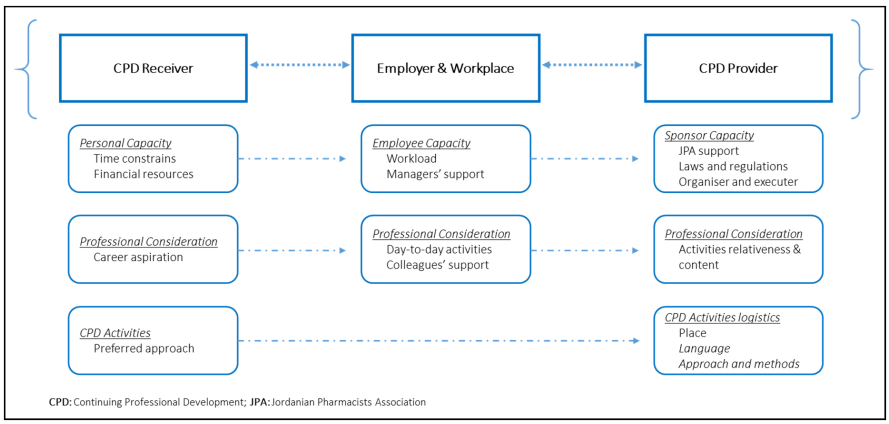


FIGURE 2 Overlap between factors related to capacity, professional considerations and type and nature of CPD activities.

and executors. Therefore, to bolster pharmacists' capacity and ability to achieve CPD and relicensing cycle requirements, employers and managers should consider arrangements that prioritize time, provide in-house training programs and address financial concerns to support employee engagement in CPD and continuing professional education (CPE). Improving pharmacists' capacity could be achieved by allowing employees time for CPD activities without interfering with their primary duties, establishing a culture that promotes and facilitates continuous learning and raising commitment and morale among staff pharmacists. Furthermore, regulators and policymakers need to tailor interventions that help and support pharmacists in prioritizing CPD. Moreover, CPD sponsors and executors should consider timing and affordability issues when designing and delivering CPD activities.

Professional and practice-related considerations are also manifested at three primary levels: employee pharmacists, workplace and employer, and CPD providers and sponsors. Emerging evidence emphasizes the influence of career aspiration and future professional planning on pharmacists' engagement in CPD activities. The results echoed findings from other studies in other healthcare systems; if the content of training activities aligns with the career aspirations of pharmacists and is relevant to their day-to-day practice, pharmacists are more willing to participate and engage in these activities.[29,30] The alignment between career aspiration, CPD content, and relativeness embodies the overlap between extrinsic and intrinsic factors. Accordingly, CPD sponsors and providers should design and deliver up-to-date evidence based on an active and ongoing training and development needs assessment. At the workplace level, the supporting working environment regarding peers' and colleagues' support and encouragement was a leading influencer in pharmacists' compliance with the relicensing cycle requirements and CPD activities. Peers' influence is a commonly reported factor; therefore, managers and human resources specialists need to introduce mechanisms by which pharmacists can support each other in the uptake of CPD activities.

The last aspect, the overlap between extrinsic and intrinsic factors, is related to CPD logistics. Logistics-related factors are also linked to and influence pharmacists' capacity. Jordanian community pharmacists, similar to the global trend,[30,31] perceived location, approach, and used language to be highly influential. For that reason, the design and delivery of CPD activities should consider the accessibility of CPD activities in terms of the delivery, approach (online, face-to-face or hybrid) and venue and location.

Despite the fact that the Jordan-based CPD decree is in the early stages of implementation, results showed an agreement on the JPA's role in implementing, supporting and monitoring CPD and CPE activities.[13] Traditionally, professional bodies and associations, like the JPA, are responsible for creating and maintaining frameworks and guidelines for CPD and CPE that specify the requirements that must be met for an activity to be deemed beneficial and relevant. These frameworks assist pharmacists in systematically organizing and managing their professional development, focusing on the essential knowledge and abilities needed in their professional practice. Professional bodies' guidelines offer practitioners a way to choose learning opportunities that suit their career objectives by guiding them through the vast array of options. Therefore, professional bodies are key players in implementing and managing CPD schemes. Available evidence showed that pharmacists are more willing to participate in CPD activities that are accredited, supervised, and monitored by professional bodies.[32,33] In addition to professional bodies, other regulators and policymakers should be involved in CPD management; joint efforts and initiatives between policymakers, regulatory bodies, and providers of CPD and CPE should be considered and implemented to address and mitigate these challenges and encourage pharmacists' uptake of CPD activities.

While Regulation Number 46 and the following directives have specified the licensing requirements for healthcare professionals, including pharmacists, and the type of CPD activities and how to calculate CPD units, there is work still needs to be done and implemented to meet the International Pharmaceutical Federation (FIP) CPD standards regarding the effective management of CPD,[34] especially in terms of self-appraisal and development needs identification, personal development and training plan and CPD activities evaluation. Additionally, the JPA might need to consider integrating the FIP advanced development framework and other related standards. Integrating the FIP and other international bodies' frameworks and standards would enhance pharmaceutical care both nationally and

globally. As a result, as Jordanian pharmacists would be able to meet both local regulatory requirements and the global best practices that the FIP advocates.

This study assessed Jordanian community pharmacists' perceptions and experiences with CPD. The study also discussed factors influencing pharmacists' engagement in CPD activities and preferred training approaches and platforms. However, the study has yet to investigate the association between attitudes toward CPD and community pharmacists' willingness to expand their role and deliver direct-to-patient services. Moreover, the study design needed to identify community pharmacists' training priorities. Therefore, future research should investigate and identify the possibility of overcoming factors hindering pharmacists' participation in CPD activities. Additionally, future studies should be designed to address the differences between different governorates in Jordan and how to tailor context-specific interventions and policies.

4.1 | Limitations

This study has several limitations related to its overall design and distribution approach. One limitation is the absence of an open-ended question, which would have allowed the participants to provide more detailed insights into their perceptions and experiences with CPD and its related activities. Additionally, the survey was distributed using the open distribution approach, which enhanced its overall reach. However, open distribution does not allow for calculating response rates, sending reminders, or controlling how the survey is distributed. Lastly, at the time of this study, the CPD and relicensing requirements were still in the early stages of implementation. Therefore, later assessments are expected to result in different perspectives and highlight different priority areas.

4.2 | Impact of findings on practice statements

1. There are several external and internal factors influencing pharmacists' participation in CPD activities;
2. Governments, professional bodies, and regulators should develop and implement policies to reduce obstacles and enhance factors promoting progress;
3. It is essential to provide CPD activities in various methods and delivery systems to promote pharmacists' involvement, prevent redundancy, and ensure the content is pertinent.

5 | CONCLUSION

This study explored and investigated CPD perceptions and experiences of Jordanian community pharmacists. Evidence showed that pharmacists held positive attitudes toward CPD and were willing to participate in CPD activities and achieve relicensing cycle requirements. Several extrinsic and intrinsic factors influence pharmacists' engagement in CPD activities. Therefore, policymakers, professional bodies, and regulators need to design and lead interventions that could minimize barriers and augment facilitators. Additionally, CPD activities should be offered in different approaches and delivery mechanisms to encourage pharmacists' engagement, avoid repetition, and ensure relevance.

AUTHOR CONTRIBUTIONS

Saja Alnahar: Survey and study design, acquisition of data, interpretation of data, drafting original and final submission, preparing figures and tables. **Ian Bates**: Survey and study design, acquisition of data, interpretation of data, drafting original and final submission. **Rula Darwish**: Survey and study design, drafting original and final submission. **Shatha Al Qasas**: Study design and data collection wrote and revised the manuscript. **Mayada Shabani**: Study design and data collection wrote and revised the manuscript. All authors read and approved the final manuscript.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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