

Using a global systematic framework tool to guide the advancement of the pharmacy workforce education and training on a national level.

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Abstract

Background: Systematic education and training strategies play a critical role in preparing a competent pharmacy workforce to meet the evolving healthcare needs of nations. Reports have shown that investing in healthcare workers' education and training not only has a positive impact on employment rates and economic growth but also results in measurable improvement in health and population outcomes. The goal of this study was to evaluate the use of globally validated workforce goals as a guide to the planning and advancement of the Kuwait pharmacy workforce's education and training.

Methods: A mixed-approach qualitative study involving representatives of key stakeholders was conducted. Focus group interviews were carried out with pharmacists with patient and non-patient facing roles (N=33). In addition, semi-structured interviews with the three main pharmacy Continuing Professional Development (CPD) providers in the country were conducted. Data were analysed using a framework analysis method. Interviews were transcribed verbatim and data were analysed and coded using MAXQDA-12. The International Pharmaceutical Federation Workforce Development Goals (FIP WDGs) were used as the framework for data analysis.

Results: Participants' responses highlighted three main priorities: the importance of initial and post-graduation needs-based education (WDG 2), the need for competency development and competency frameworks (WDG 5), and the crucial role of active policy and regulations that would enforce the profession development (WDG 9). Investing in competency development was seen the top priority for the pharmacy workforce in Kuwait.

Conclusion: This study provided insights into areas in need of systematic development for pharmacy workforce in Kuwait including foundation training for early career pharmacists, competency development and competency frameworks, and policies and regulations that would enforce the profession development. In addition, the use of the FIP WDGs framework was found to offer a framing device to better understand and identify priorities and needs for pharmacy workforce development.

Word: 298/300

Keywords: competency framework, workforce education, workforce development goals, Kuwait.

Background

Planning and development of the pharmaceutical workforce are the main pillars for achieving universal health coverage by 2030 [1, 2]. Pharmacy, like other healthcare professions, has transformed dramatically over the last 20 years with the evolution of the practice philosophy from traditional tasks such as dispensing and medication compounding to a newer scope of practice focussing more on medicines expertise for patient-centred care. Education and Continuing Professional Development (CPD) plays a critical role in preparing a competent pharmacy workforce to meet the evolving healthcare needs of the public [3]. The World Health Organisation (WHO) reports have shown that investing in healthcare workers' education and continuing training not only has a positive impact on employment rates and economic growth but also results in remarkable improvement in health and population outcomes [4, 5].

Several global & local initiatives and policy drivers have mobilised a sense of urgency to invest in the pharmacy workforce to better meet healthcare needs [6-9]. The International Pharmaceutical Federation (FIP) has continuously worked on emphasising the significance of a 'needs-based' approach in the development of a locally relevant workforce. FIP, through its partnership with WHO, advocates for pharmacists' roles in global health and calls for the implementation of workforce transformation vision and goals to ensure that specific country and regional needs are met. In 2016, the International Pharmaceutical Federation (FIP) stated 13 workforce developmental goals (WDGs) that were built together to establish the milestones for impactful global development for pharmacy education and to guide the global, regional and national transformations of the pharmacy workforce (Figure 1) [10].

At the national level, Kuwait has recently published the new Kuwait Vision 2035, which recognises "improving the healthcare services" and "reforming the education system" as important pillars of the vision towards a prosperous and sustainable future for the country [11]. The number of pharmacists in Kuwait is 4377 (this includes governmental, private, and semi-governmental sectors). There are three main institutes that provide CPD and post-graduate education for pharmacists are Kuwait University, Kuwait Pharmaceutical Association, and the Life Science Academy. However, the clinical role of the pharmacist in Kuwait is not well recognised. The duties of hospital pharmacists are mainly related to administrative roles, such as

drug orders, stock control and personnel management [12, 13]. Similarly, pharmacists in developing countries are still underutilized and their role as health care professionals is not deemed important by either the community or other health care providers [14, 15]. Whereas in developed countries, pharmacists have contributed significantly in the provision of expanded pharmaceutical services such as post-surgical and home care, medication review, health promotion, the promotion of rational prescribing and appropriate use of medicine to optimise patient care [16]. With this expansion of the type of services that pharmacists may provide to their patients, pharmacy schools have been facing the challenge of transforming their curriculum to prepare competent workforce [17]. Initial education should provide ability for critical thinking, improve problem-solving and decision-making skills, yet studies showed that pharmacy graduates may not be fully prepared to practice and may need future training in communication skills, and professional behaviour and interpersonal skills [18]. Therefore, careful planning for the pharmacy workforce continuing professional development and training is imperative.

This study aimed to identify pharmacy workforce education priorities and needs in the opinion of pharmacists and CPD providers in Kuwait using the FIP WDGs as a guiding tool.

Methods

Study design and setting

A multi-method qualitative design was used for this study using both focus groups with pharmacists (practising in direct and non-direct patient care settings), and individual in-depth interviews with CPD providers (the three pharmacy CPD providers in the country). The focus groups were not intended to determine prevalence or incidence. Instead it was designed and conducted to collect data that would provide deeper understanding from a smaller sample of the population of interest. All interviews were undertaken between December 2016 and February 2017 in Kuwait. Ethical approval for this research project was granted from the necessary governing bodies in Kuwait (the Health Sciences Centre Research Committee (VDR/EC/2955) and the Ministry of Health Scientific Research Committee (2016/487)).

Sampling strategy and participants recruitment

Convenience and snowball sampling strategies were employed to recruit pharmacists for focus groups. A convenience sample of pharmacists was contacted and interested pharmacists asked their colleagues to contact the researcher if they were interested in participating. Whereas pharmacy CPD providers were recruited using purposive sampling. No incentives were provided to the recruited participants.

Data collection

A total of six focus group interviews with pharmacists were conducted. Participants (N=33) were grouped according to their practice setting: polyclinics (primary care), hospitals (secondary care), specialised hospitals (tertiary care), community pharmacies, and regulatory sector including inspection department, central medical stores and registry department. On the other hand, three individual interviews were conducted with the CPD providers. The interviews involved members responsible for pharmacy CPD in the three main institutes in Kuwait.

Participants were asked open-ended questions about their views on pharmacy education and graduate preparedness for practice, opportunities for CPD and other post-graduation education and their opinions regarding the current challenges in practice (Appendix 1 and 2). All interviews were conducted in Arabic, which is the first language of all participants, to avoid issues of misinterpretation and ensure accurate meaning was captured during data collection [19, 20].

Data translation

Translation in qualitative research should aim to produce meaning-based translations rather than word-for-word translations, i.e. conceptual equivalence [20, 21]. Analysis of data was performed in Arabic, the language in which the data were collected as original words, phrases and concepts are securely embedded in context, and the risk of misinterpretation and loss of participants' intended meaning is minimised [19]. Translation was performed using a parallel blind translation technique. In this method, two translators work independently to translate the required document to the targeted language and then meet to compare their translation, discuss any discrepancies, and agree on a final translated version [22].

Data analysis

Data generated from the interviews were coded and analysed using the qualitative data analysis software MAXQDA-12 [23]. The data were analysed using a six steps framework analysis method [24, 25]. 1-Familiarisation with the data: all interviews were transcribed verbatim and repeatedly read to have a general sense of the overall meaning of the data. 2- Identifying a conceptual framework: the process of developing framework categories was informed both by a priori concerns (the FIP WDGs conceptual framework) and by emergent issues arising from the earlier familiarisation step. 3-Coding: the conceptual framework was applied and systematically used to index all the data in textual form. 4- Charting and reviewing themes: data were rearranged to the appropriate part of the conceptual framework to which they relate. 5-Mapping and interpretation: a map of provisional clusters and themes and the relation between them was produced. 6- Writing up the report. Although the previous steps were followed to ensure a systematic approach for data analysis, the process was iterative and involved much back and forth between different ideas rather than a linear step approach.

Results

Thirty-three pharmacists were interviewed to explore their perception towards their career development and educational priorities. The majority of participants were female (n =22, 66.7%), and Kuwaitis (n= 20, 60.6%). Fifteen participants (45%) had more than 10-year experience. Table 1 lists the demographic characteristics of participants pharmacists. Moreover, four members from the three CPD-providing institutes in Kuwait agreed to participate and provided an in-depth understanding of their strategies and plans in relation to pharmacy workforce development.

All 13 goals except 2 (goal #10 and goal # 12) were discussed with participants of the focus groups and CPD providers interviews. The 2 goals were not discussed because participants did not provide adequate information on gender and diversity balances (goal #10) and workforce intelligence (goal # 12). This may be because these two goals are mostly related to data and statistics about the pharmacy workforce that were, at the time of the interviews, not available to the researcher or study participants and therefore could not be comprehensively discussed to obtain credible findings. The most frequent coded goals were ‘foundation training’ (19.4%), ‘competency development’ (16.3%) and ‘CPD strategies’ (13.0%). These were identified as the

priority for pharmacy workforce development in Kuwait. Findings of each goal are presented under their corresponding cluster (academy, CPD and systems).

Cluster 1: Academy

WDG1 – Academic capacity

Pharmacists mentioned that undergraduate education did not prepare them well for the practice, which resulted in early education not being fit for purpose or fulfilling practice needs. Majority of participants reported that undergraduate curriculum did not provide them with the skills needed for practice in general. They believed that skills such as communication, conflict resolution, and time management are as important as knowledge (e.g. pharmacology and therapeutics) and should be included in any pharmacy teaching curriculum. Participants also reported that transition from initial education to practice was found to be challenging as initial education failed to provide a realistic expectation of real practice. Pharmacy schools are preparing graduates to provide pharmaceutical care services to patients, while, in practice, they face the fact that dispensing, and stock management are the priorities of their daily routine.

All CPD providers noted that newly graduated pharmacists, as well as pharmacy students, have asked for more training and educational courses about subjects that were not fully covered during their undergraduate curriculum. This was found to be a good opportunity for a CPD provider to initiate a series of lectures to pharmacists. Although CPD providers acknowledged the existing gap between initial education and actual practice, they could not provide clear plans or training opportunities to fill this gap, nor could they report a clear vision to support pharmacists' post-graduation education or professional development. Lack of clear vision for needs-based education from the main CPD providers in the country made their input, with regard to professional development, almost non-existent.

WDG2 - Foundation training and early career development

Foundation training programmes refer to any generic training programme, which forms the bridge between initial education (undergraduate level) and specialist/general practice training.

Most respondents in the present study believed that the lack of structured training or guidance after they graduated from pharmacy school (e.g. lack of competency frameworks and standards for care) made it difficult for them to decide on their professional development and to set goals/milestones. Pharmacists, who worked in the public sector and those working in the private sector, mentioned that it is difficult to think about the progression of their career with the lack of clear career pathways and the lack of specific job description. Pharmacists professional development process was reported to be generally self-dependent, unstructured in most occasions, and not related to specific goals or objectives. They discussed that the absence of clear standards or structured guidelines that outline optimal practice is a huge problem. This made it difficult for them to decide what to learn and how to improve personally and professionally.

Perception towards CPD

When participants were asked what continuing professional development meant to them, different answers were reported, such as “educational sessions”, “courses and lectures”, “new information, updates”, and “free reading, periodicals, conferences, or research”. It was clear that participants’ perceptions were all related to the structured learning activities, and none mentioned unstructured activities or activities related to the workplace such as shadowing or discussion with colleagues.

Practice challenges

The reported challenges were thought similar across different practice settings. The most reported challenges were lack of standards for care, and lack of clear procedures and policies clarifying the duties of pharmacists in a daily basis. Participants shared their concerns and worries and believed that it was difficult to plan for their professional development without acknowledging these issues.

Pharmacy services that are currently provided to the patient were described as lacking consistency and sustainability. This was linked to managers being replaced or enforced by other agendas in the absence of policies or documents regulating pharmacy services. On the other hand, CPD providers called for collaboration with all pharmacy education stakeholders to facilitate their work in providing education and training to pharmacists.

WDG 3 - Quality assurance

Pharmacists questioned the quality of the educational activities available for them. Some mentioned (especially those working in the community settings) that most of the conferences that they attended were sponsored by pharmaceutical companies, which may provide biased information. As with the pharmacists' focus groups, CPD providers also commented on the quality of available events provided by pharmaceutical companies and acknowledged the information bias.

All participating pharmacists expressed their need to have unbiased, certified, high-quality CE/CPD that could be provided by an academic institute or a higher educational authority. Moreover, participants clarified that there is a lack of definite stakeholders' input in the development of adequate education and training for pharmacists in Kuwait. This means that ensuring the quality of CPD provided may be difficult.

Cluster 2: Professional Development

WDG 4 - Advanced and specialist expert development

There was a debate between primary care pharmacists on whether it was best to gain a postgraduate certificate in clinical pharmacy or to obtain advanced training in general. The majority of primary care participants viewed that their daily practice was not allowing them to carry out any advanced clinical interventions (e.g. therapeutic drug monitoring) and therefore there was no need to waste their time and effort to pursue higher or advanced education. CPD providers did not provide any information regarding advanced and specialist expert development. This was believed to be due to their uncertainty regarding how to establish sustainable foundational activities in the first place (e.g. early career development programmes) and how to encourage pharmacists to attend them. However, CPD providers believed that starting with foundation training and competency building will help to then plan expert education and training for the advancement of practice.

WDG 5 - Competency development

At the time of this study, there was no competency framework for pharmacists in Kuwait. Building competency was seen as fundamental for advancing the profession. A competent workforce is an ultimate goal for educating and training pharmacists at all levels. Participants mentioned that, without competent pharmacists, no improvement in healthcare could be seen. Therefore, they discussed a few behaviours that they believed were important to perform to provide quality pharmaceutical services. Those included: proper use of medicinal devices (e.g. inhalers), up-to-date knowledge and application of guidelines for most common non-communicable diseases in Kuwait such as diabetes, asthma and hypertension, being able to counsel patient on lifestyle modifications, being able to report adverse drug reactions, confidence in dealing with drug compatibilities and admixture charts, therapeutic drug monitoring (e.g. antibiotics such as gentamycin and vancomycin), antimicrobial and anticoagulant management, prescription checking (e.g. legal aspects), teamwork and communication skills (e.g. being able to communicate effectively with colleagues and other healthcare providers), leadership, and marketing.

When participants were asked what education they perceived was needed to perform the behaviours they thought important to provide high-quality pharmaceutical services, they listed many topics such as communication skills, patient education/counselling, antimicrobial stewardship (sensitivity test), evidence-based medicines, cold chain management, and pharmacovigilance. It was found that the needs of different groups and practice settings varied, which confirmed that needs-based education is a key for planning education and training for the workforce.

As with the pharmacists' focus groups, CPD providers mentioned that they believed lack of evidence-based tools such as developmental frameworks describing competencies and scope of practice for all stages of professional careers limits their contribution to pharmacists' professional development as they cannot provide targeted, needs-based education. They discussed the need for a competency framework that all can use as a guide for professional development. This will allow them to decide which training is needed and what skills pharmacists are lacking. Competency frameworks were seen as an evidence-based tool that

would help to create clear and purposeful post-graduation education and support pharmacists' career development.

WDG 6 - Leadership development

Pharmacists acknowledged the importance of leadership skills, which were thought to be necessary for junior as well as senior pharmacists, as recently graduated pharmacists emphasised the significance of leadership as they found themselves, at times, in acting positions that involved supervision and management. Participants mentioned that policy- and decision-makers might want to head towards the creation of programmes/strategies for the development of leadership skills (including tools and mentoring systems), to support pharmacists through their careers. Moreover, pharmacists discussed the need to have a vision for pharmacists' education and training which should be communicated to the individual pharmacist to ensure their engagement with the learning process and to facilitate the transfer of knowledge and new skills to their daily practice. CPD providers also emphasised the importance of leadership to improve the profession. A clear vision of pharmacy workforce development through education and training was viewed as a fundamental starting point. Lack of a vision for pharmacy practice from the higher authority was believed to be one of the issues that need immediate action. CPD providers mentioned that a clear vision would help initiate the required changes.

WDG 7 - Service provision and workforce education and training

Pharmacists mentioned that education and training of pharmacists is not a personal goal only: the ultimate goal is to provide evidence-based therapeutic management to patients, and this will improve pharmacists' image in serving the population and build trust with patients as well.

Pharmacists agreed on the absence of systematic development of education and training activities as well as the lack of clear policies regulating pharmacists' education. Participants also discussed the opportunistic nature of formal and informal CPD available to pharmacists in Kuwait.

Participants across all groups discussed the importance of educational events to be: relevant to their daily practice, associated with incentives (e.g. counted towards their promotion or licence renewal), conducted at a suitable time, announced through reachable and clear advertisement,

and with variable and flexible modes of delivery (e.g. lecture versus workshops, online versus face-to-face). Participants also valued the need for an assessment of learning to ensure that an educational activity has achieved its intended learning outcomes.

CPD providers, on the other hand, reported that the provision of optimum patient care and development of current practice require pharmacists to be lifelong learners. CPD providers believed that providing better pharmaceutical care required changes in behaviours and attitudes to be made. CPD providers expressed their keenness to support pharmacists in improving their profession. However, they stated that this could not be achieved without knowing the actual learning and training needs. CPD providers believed that pharmacists do not know their needs. This could possibly be due to the lack of specific standards that pharmacists could measure their practice towards (e.g. competency frameworks).

Barriers to participation in CPD activities

Pharmacists listed different barriers that they perceived were preventing them from participating in CPD activities. The most frequently mentioned barriers were timing of the CPD activities and administrative barriers (permission to attend, shortage of staff). Participants also added that, since they gain nothing (e.g. no CME points, not linked to their promotion) from attending education and training, they do not believe their participation is important or even needed. CPD providers found that encouraging pharmacists to attend CPD events is very challenging. This led the providers to reduce the number of events offered, in order to save resources.

WDG 8 - Working with others in the healthcare team

Currently, there are no policies or roles specifying or regulating pharmacists' duties on the wards. However, hospital pharmacists mentioned that, with proper communication, they could carry out many activities in collaboration with other healthcare providers and across departments. Participants showed keenness in collaboration with other healthcare professionals in a multi-disciplinary team. However, they indicated that other healthcare providers perceived pharmacists as medication dispensers only, which they viewed as hindering their intervention and provision of pharmaceutical care.

Working with other healthcare professionals is an important aspect of providing optimum health services. CPD providers reported that pharmacists need to be at an equivalent level of knowledge and skills as other healthcare professionals, so they work in a multi-disciplinary team and provide the needed pharmaceutical services. Moreover, one CPD provider explained that their mission is to provide training to physicians, nurses and pharmacists. However, all training currently provided is usually carried out separately, and they do not provide inter-professional courses. This CPD provider mentioned that an inter-professional training course would enrich pharmacists' learning experience and would facilitate acceptance of pharmacists' input by other healthcare professions.

Cluster 3: System

WDG 9 - Continuing professional development strategies

Pharmacists in all focus groups discussed the lack of clear strategies that support professional development across all practice settings and all stages of a pharmacist's career. The majority of participants in the public sector favoured a mandatory system for CE as a recognition for those who devote time and effort to attend and learn. Pharmacists in the private sector as well expressed their agreement with the idea of a mandatory system. However, they valued the presence of proper policies and support before any mandatory actions. Moreover, pharmacists reported that attendance should not be limited to face-to-face activities, and that online activities should be accepted as well.

Incentives and support system

A system of support was highly discussed through all the focus groups. Almost all participants reported the need for a support system that would facilitate their participation in CPD as well as the application of new knowledge or services in the workplace. A supportive working environment was viewed as a workplace where pharmacists are given authority and permissions from managers to improve current services and implement new ones. The support participants thought needed was not limited to their managers or department heads but was also required through the workplace (e.g. resources, infrastructure) as well as from their peers. Pharmacists

expressed their desire to have an incentives system in place to motivate them to attend and participate in CPD activities. They discussed the possibility of having a recognition system as an incentive for those who invest time and efforts in learning and educating themselves, as there are no incentives currently for those who pursue any additional training or attend courses.

CPD providers believed that motivating pharmacists to learn and attend training or to adopt a lifelong learning approach needs incentives. CPD providers also recognised that, in Kuwait, laws, policies, regulations and the basics of collaboration need to be activated before a CPD national strategy is put in place. However, when CPD providers were asked about their plans for the coming years, CPD providers could not present a clear plan. Due to several challenges (e.g. pharmacists not attending educational activities, no policies currently governing continuing education), moving forward into providing proper support to pharmacists in relation to their CPD was found to be not evident at the current time.

WDG 11 - Workforce impact and effect on health improvement

The ultimate goal for pharmacy workforce development is to have an impact on healthcare improvement. Pharmacists in primary and secondary care settings recommended that, if pharmacists would have an impact and effect on health improvement, this should be initiated by delegating more tasks and responsibilities to pharmacists in general. The role of the pharmacists should be expanded in hospitals, primary care and the community as well. CPD providers discussed that pharmacists' training certainly has a positive impact on health outcomes but is difficult to measure.

WDG 13 - Workforce policy formation

Majority of participating pharmacists believed that the implementation of new policies and regulations from a higher authority would provide the support they are asking for and will empower pharmacists to provide more pharmaceutical care and clinical services daily. Pharmacists also stated that workforce development through education and training is a joint responsibility between the education stakeholders in Kuwait.

Role of professional and regulatory bodies

When participants were asked about the role of the three pharmacy CPD providing institutes, they all agreed that there is very limited input from these institutions in pharmacists' CPD. CPD providers mentioned that they tried to propose different ideas to decision makers to set new regulations related to a CE points system for pharmacists. However, this was not yet successful because people resisted these changes and working with higher authorities has its limitations. CPD providers believed that collaboration is needed, planning is required, and a process for action is essential.

Discussion

The overall goal of this research was to identify pharmacy workforce education priorities and needs in the opinion of pharmacists and CPD providers in Kuwait using the FIP WDGs as a guiding tool. To our knowledge, this is the first study in the Eastern Mediterranean Region (EMR) that apply the FIP WDGs on a national level and it is a first study to evaluate pharmacists' education and training from the perspectives of both pharmacists and CPD providers.

Participants' responses highlighted three main priorities. The first is the importance of foundation training (WDG 2), second; the need for competency development and competency frameworks (WDG 5), and third; the crucial role of active policy and regulations that would enforce the profession development (WDG 9). Investing in competency development was seen the top priority for the pharmacy workforce in Kuwait.

Early career maps and frameworks to support pharmacist's foundation training (WDG 2) and to facilitate a seamless transition into early career practice and towards advanced practice was found essential. This was highlighted in the present study as one of the priorities for Kuwait pharmacy workforce and as an important supporter for pharmacist's education and training in Kuwait. The limitations of the current learning environment and pharmacy curriculum were highlighted in previous research and urged at developing professional and transversal knowledge and competencies by engaging students in active learning activities [26]. The unpreparedness of graduates for practice which highlights a disconnect between educational outcomes and practice needs was also reported in other countries in the region [27]. In recent years, the Faculty of

Pharmacy at KU undertook major curriculum changes to ensure that the initial education is fit for purpose. A new competency based PharmD programme was designed and supplemented with a competency matrix for entry to pharmacy practice. The new entry-to-practice PharmD programme will replace the current B.Pharm programme in September 2020.

Pharmacists in the present study were found in need for early career maps and frameworks to support a seamless transition into early career practice, which is currently lacking. These frameworks were viewed as necessary to consolidate needs-based foundation training infrastructures of the novice workforce towards advanced practice. Development of competency frameworks was found fundamental for the advancement of the profession, as the evidence also suggested that the use of competency frameworks aids in identification of learning needs and supports the design and development of learning activities which collectively lead to improvement of performance and advancement of practice [28, 29].

CPD providers acknowledged the existing gap between initial education and actual practice. CPD providers may need to follow a systematic process for the development of education and training activities. These activities should be based on local healthcare systems, their capacity and funding, and should be aligned to national and international sustainable development goals [10].

Building a competent workforce (WDG 5) was found to be a priority to guide career development for individual pharmacists. The use of evidence-based developmental frameworks to support the transformation of the pharmacy workforce within the scope of practice, across all settings and according to local/national health needs was viewed as the first step in advancing the pharmacy workforce in Kuwait. It was found that pharmacists in Kuwait are not motivated to pursue advanced and speciality education and training as this will not reflect on their daily practice in the absence of a clear job description outlining duties required to optimise patient care. Findings from this research add to the body of literature that previously showed that pharmaceutical services are yet to develop, and called for the role of pharmacists in Kuwait to be expanded [12, 30-33]. Previous research also showed that introduction of new services changed pharmacists' learning and training habits, and contributed to the creation of pharmacists'

learning needs, which in turn make pharmacists seek educational activities in a needs-based approach [34, 35].

Findings suggest that the available learning opportunities for pharmacists are neither well planned nor mapped to any national agenda for professional development. The *ad hoc* nature of CPD providers' initiatives is not ideal and it may take many years before advancement in practice is seen. The lack of requirements for CPD/CE and the unregulated pre-registration training was found similar to other countries in the EMR [27, 36, 37]. This necessitate further focused work and discussion to develop workable strategic plans for workforce development [6].

Pharmacists, on the other hand, called for a support system to be incorporated into any future strategies to facilitate their engagement in CPD as well as the application of new knowledge or services in the workplace. They expressed their need for support from educators (CPD providers and academic institutes) and higher authorities (MoH and managers) as well as their peers. They explained that consistent training, resources within the workplace, and meeting with other pharmacists to share information and ideas would help them to improve and advance, personally and professionally. The support system that pharmacists discussed in the present study was similar to that suggested by Austin et al. [38], Bell et al. [39], McNamara et al. [40] and Power et al. [41]. Educators need to move beyond the classrooms to provide structured and organised support to pharmacists through needs-based education and training as well as collaboration with managers and higher authorities.

Participants reported that collaboration between different stakeholders is needed to establish effective CPD strategies and plans for the pharmacy workforce development (WDG 9). All professional development activity should be clearly linked with needs-based health policy initiatives and pharmaceutical career development pathways. A national vision and strategies to collate and share workforce data and workforce planning activities is now imperative. The current lack of collaboration and assertiveness from higher authorities could be associated with lack of involvement of professional leadership bodies in workforce related issues [6].

Participants, in the present study, called for more support from higher authorities by stating clear policy and regulations that would govern pharmacy practice in Kuwait in general. Findings from CPD providers' interviews suggested that evidence of systematic development of policies for the

strengthening and transforming pharmaceutical workforce education was lacking. This is believed to be due to the lack of structure, leadership and policies that govern pharmacy practice in general and pharmacy workforce education and training specifically. Clear policies and regulations are important as national and international workforce development visions have recognised the vital role of policies and regulations in implementing needs-based development approaches to professional development across all settings and stages [10].

Implications and recommendations

A competent pharmacy workforce is fundamental for ensuring the provision of high-quality healthcare services. Planning for advancing the pharmacy workforce must be guided by a clear vision and goals to achieve the needed improvement and development. This vision must be linked with local healthcare needs. Previous reports called for urgent concerted action to utilise a needs-based approach in the development of workforce development vision; that is based on evidence, implementation strategies and workforce monitoring measures [6, 42]. Findings from this study would support leaders and policymakers to make informed decisions with regard to pharmacy workforce development. This study presents a practical approach to use the FIP WDGs framework to explore pharmacy workforce education and training priorities on a national level. The FIP WDGs framework was found to offer valuable understanding into identifying priorities for pharmacy workforce development.

Limitations

This study has some limitations. A limited sample of 33 pharmacists was interviewed. This is believed to be related predominantly to the qualitative methodology used to conduct the study. However, this sample included pharmacists working in a variety of practice settings and at all career levels. This was important to explore and critically evaluate different issues related to CPD. Moreover, although applying convenience and snowball sampling techniques helped to recruit participants who were willing to discuss the topic under study, it may limit the application of results for other pharmacists or contexts.

Another limitation might be that interviews provided data that are self-reported and may be subject to social desirability bias where participants may illustrate or report good behaviours or

experiences to please the interviewer or other participants. However, it was believed that prompting during each interview helped understand participants' behaviours in different situations and experiences.

Finally, results from this qualitative study are not intended to determine prevalence or incidence. Instead, this study was designed and conducted to explore and evaluate the real experiences of pharmacists in regard to complex issues related to their professional development, and to provide a foundation for ongoing research into pharmacy workforce development. More research is needed to build on the preliminary results from the present study and to expand the level of collaboration between high-stake individuals and organisations to ensure effective formation and implementation of national strategies and policies related to pharmacy workforce.

Conclusion

This is a novel study that provided an original, insightful examination of pharmacy workforce development goals in Kuwait. The identified learning and strategic priorities were primarily the importance of foundation training for early career pharmacists, the need for competency development and competency frameworks, and the crucial role of active policies and regulations that would enforce the profession development. Future research can further validate these outcomes and explore their dimensions in more depth to facilitate identifying operational mechanisms for change that are practical, contextual and needs based. These findings provide a roadmap for pharmacists' education and career development not only in Kuwait but also in the EMR which will in turn guide educators, policymakers and leaders in other countries towards advancing pharmacy practice in their local context.

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References

1. WHO. *Global strategy on human resources for health: Workforce 2030*. 2016 [cited 2017 25 July]; Available from: <http://who.int/hrh/resources/globstrathrh-2030/en/>.
2. WHO. *Working for health and growth: investing in the health workforce*. 2016 [cited 2017 25 July]; Available from: <http://www.who.int/hrh/com-heeg/reports/en/>.
3. International Pharmaceutical Federation. *Transforming Pharmacy and Pharmaceutical Sciences Education in the Context of Workforce Development*. 2017 [cited 2018 20 February]; Available from: <https://www.fip.org/file/1387>.
4. WHO. *Final report of the expert group to the High-Level Commission on Health Employment and Economic Growth*. 2016 [cited 2017 12 November]; Available from: <https://www.who.int/hrh/com-heeg/reports/report-expert-group/en/>.
5. WHO. *Transforming and scaling up health professionals' education and training: WHO Education Guidelines 2013*. 2013 [cited 2017 12 November]; Available from: https://www.who.int/hrh/resources/transf_scaling_hpet/en/.
6. Mukhalalati, B.A., et al., *Transforming the pharmaceutical workforce in the Eastern Mediterranean Region: a call for action*. Eastern Mediterranean Health Journal, 2019. **26**(6): p. 1-5.
7. Bader, L., I. Bates, and C. John, *From workforce intelligence to workforce development: developing the Eastern Mediterranean pharmaceutical workforce for better health outcomes*. Eastern Mediterranean Health Journal, 2018. **24**(9): p. 899-904.
8. ASHP, *ASHP Long-Range Vision for the Pharmacy Work Force in Hospitals and Health Systems: Ensuring the Best Use of Medicines in Hospitals and Health Systems*. American Journal of Health-System Pharmacy, 2007. **64**(12): p. 1320-1330.
9. Rees, G.H., *Addressing inadequate health workforce intelligence*. Internal Medicine Journal, 2015. **45**(9): p. 887-889.
10. International Pharmaceutical Federation. *Pharmaceutical Workforce Development Goals*. 2016 [cited 2016 November 17]; Available from: https://www.fip.org/www/streamfile.php?filename=fip/PharmacyEducation/2016_report/2016-11-Education-workforce-development-goals.pdf.
11. General Secretariat of the Supreme Council for Planning and Development. *New Kuwait*. 2017 [cited 2017 22 November]; Available from: <http://www.newkuwait.gov.kw/home.aspx>.
12. Al-Taweel, D.M., A.I. Awad, and B.J. Johnson, *Pharmacists' contributions to the delivery of pharmaceutical care to patients with type 2 diabetes in Kuwait*. International Journal of Diabetes in Developing Countries, 2014. **34**(2): p. 108-115.
13. Matowe, L., A.S. Al-Kandery, and S.M. Bihzad, *Pharmacy in Kuwait*. American Journal of Health-System Pharmacy, 2003. **60**(15): p. 1591-2.

14. Azhar, S., et al., *The role of pharmacists in developing countries: the current scenario in Pakistan*. Human Resources for Health, 2009. **7**(1): p. 54.
15. Rayes, I.K., M.A. Hassali, and A.R. Abduelkarem, *The role of pharmacists in developing countries: The current scenario in the United Arab Emirates*. Saudi Pharmaceutical Journal, 2015. **23**(5): p. 470-474.
16. George, P.P., et al., *The evolving role of the community pharmacist in chronic disease management - a literature review*. Ann Acad Med Singapore, 2010. **39**(11): p. 861-7.
17. Chanakit, T., et al., *Does a transition in education equate to a transition in practice? Thai stakeholder's perceptions of the introduction of the Doctor of Pharmacy programme*. BMC medical education, 2015. **15**: p. 205-205.
18. Kairuz, T., C. Noble, and J. Shaw, *Preceptors, interns, and newly registered pharmacists' perceptions of New Zealand pharmacy graduates' preparedness to practice*. Am J Pharm Educ, 2010. **74**(6): p. 108.
19. Smith, H.J., J. Chen, and X. Liu, *Language and rigour in qualitative research: Problems and principles in analyzing data collected in Mandarin*. BMC Medical Research Methodology, 2008. **8**(1): p. 44.
20. Esposito, N., *From meaning to meaning: the influence of translation techniques on non-English focus group research*. Qualitative Health Research, 2001. **11**(4): p. 568-79.
21. Kashgary, A.D., *The paradox of translating the untranslatable: Equivalence vs. non-equivalence in translating from Arabic into English*. Journal of King Saud University - Languages and Translation, 2011. **23**(1): p. 47-57.
22. Hambleton, R.K. and L. Patsula, *Adapting Tests for Use in Multiple Languages and Cultures*. Social Indicators Research, 1998. **45**(1): p. 153-171.
23. VERBI Software. *MAXQDA Online Manual*. 2016; Available from: https://www.maxqda.com/download/manuals/MAX12_manual_eng.pdf.
24. Gale, N.K., et al., *Using the framework method for the analysis of qualitative data in multi-disciplinary health research*. BMC Medical Research Methodology, 2013. **13**: p. 117-117.
25. Braun, V. and V. Clarke, *Successful qualitative research : a practical guide for beginners*. 2013, London: SAGE.
26. Awad, A., A. Al-Haqan, and P. Moreau, *Motivations, career aspiration, and learning experience of students in the pharmacy program at Kuwait University: A tool to guide curriculum development*. Currents in Pharmacy Teaching & Learning, 2017. **9**(2): p. 332-338.
27. Bader, L.R., et al., *A conceptual framework toward identifying and analyzing challenges to the advancement of pharmacy*. Research in Social & Administrative Pharmacy 2017. **13**(2): p. 321-331.
28. Mills, E., et al., *The General Level Framework: use in primary care and community pharmacy to support professional development*. International Journal of Pharmacy Practice, 2010. **16**(5): p. 325-331.

29. Brown, A., P. Zinck, and N. Smith, *The development and trial of a new approach to pharmaceutical competency development for primary healthcare personnel in Pacific Island Countries*. Pharmacy Education, 2015. **15**.
30. Al Haqan, A., et al., *Pharmacists Attitudes and Role in Diabetes Management in Kuwait*. Medical Principles and Practice, 2017.
31. Alsaleh, F.M., et al., *Knowledge, attitude and practices of pharmacovigilance and adverse drug reaction reporting among pharmacists working in secondary and tertiary governmental hospitals in Kuwait*. Saudi Pharmaceutical Journal 2017. **25**(6): p. 830-837.
32. Katoue, M.G., et al., *Pharmaceutical care in Kuwait: hospital pharmacists' perspectives*. International Journal of Clinical Pharmacy, 2014. **36**(6): p. 1170-8.
33. Awad, A. and M. Waheedi, *Community Pharmacists role in obesity treatment in Kuwait: a cross-sectional study*. BMC Public Health, 2012. **12**: p. 863.
34. Dopp, A.L., et al., *A five-state continuing professional development pilot program for practicing pharmacists*. American Journal of Pharmaceutical Education, 2010. **74**(2): p. 28.
35. McConnell, K.J., T. Delate, and C.L. Newlon, *Impact of continuing professional development versus traditional continuing pharmacy education on learning behaviors*. Journal of the American Pharmacists Association, 2012. **52**(6): p. 742-52.
36. Wilbur, K., *Continuing professional pharmacy development needs assessment of Qatar pharmacists*. The International Journal of Pharmacy Practice, 2010. **18**(4): p. 236-41.
37. Hasan, S., *Continuing education needs assessment of pharmacists in the United Arab Emirates*. Pharmacy World & Science 2009. **31**(6): p. 670-6.
38. Austin, Z., et al., *Continuous professional development: A qualitative study of pharmacists' attitudes, behaviors, and preferences in Ontario, Canada*. American Journal of Pharmaceutical Education, 2005. **69**(1): p. 25-33.
39. Bell, H.M., T.A. Maguire, and L.F. McGartland, *Perceptions of continuing professional development within the pharmacy profession*. Journal of Social and Administrative Pharmacy, 2002. **19**(3): p. 87-98.
40. Mc Namara, K.P., J.L. Marriott, and G.J. Duncan, *What makes continuing education effective: Perspectives of community pharmacists*. International Journal of Pharmacy Practice, 2007. **15**(4): p. 313-317.
41. Power, A., et al., *Factors affecting the views and attitudes of Scottish pharmacists to continuing professional development*. International Journal of Pharmacy Practice, 2011. **19**(6): p. 424-430.
42. International Pharmaceutical Federation. *Pharmacy Workforce Intelligence: Global Trends Report*. 2018 [cited 2018 14 November]; Available from: https://fip.org/files/fip/PharmacyEducation/Workforce_Report_2018.pdf













Cluster 1: Academy <i>Focus on the schools, universities, and education providers</i>	
	1. Academic capacity Engagement with pharmaceutical higher education development policies and ready access to leaders in pharmaceutical science and clinical practice in order to support supply-side workforce development agendas
	2. Foundation training and early career development Foundation training infrastructures in place for consolidating initial education and training and progressing the novice workforce towards advanced practice
	3. Quality assurance Transparent, contemporary, and innovative processes for the quality assurance of needs-based education and training systems
Cluster 2: Professional Development <i>Focus on the pharmaceutical workforce</i>	
	4. Advanced and specialist expert development Education and training infrastructures in place for the recognised advancement of the workforce as a basis for enhancing patient care and health system deliverables.
	5. Competency development Clear and accessible developmental frameworks describing competencies and scope of practice for all stages of professional careers
	6. Leadership development Strategies and programmes in place that develop professional leadership skills for all stages of career development
	7. Service provision and workforce education and training A patient-centred and integrated health services foundation for workforce development, relevant to social determinants of health and needs-based approaches to workforce development
	8. Working with others in the health care team Clearly identifiable elements of collaborative working and interprofessional education and training which should be a feature of all workforce development programmes and policies
Cluster 3: Systems <i>focus on policy development, governmental strategy and planning, and monitoring systems</i>	
	9. Continuing professional development strategies All professional development activity clearly linked with needs-based health policy initiatives and pharmaceutical career development pathways
	10. Pharmaceutical workforce gender and diversity balances Clear strategies for addressing gender and diversity inequalities in pharmaceutical workforce development, continued education and training, and career progression opportunities.
	11. Workforce impact and effect on health improvement Evidence of the impact of the pharmaceutical workforce within health systems and health improvement
	12. Workforce intelligence A national strategy and corresponding actions to collate and share workforce data and workforce planning activities
	13. Workforce policy formation Clear and manageable strategies to implement comprehensive needs-based development of the pharmaceutical workforce from initial education and training through to advanced practice.

Figure 1: description of the FIP WDGs (modified with permission)

Table 1: Demographic characteristics of participating pharmacists in focus groups (n=33)

Age	N (%)
<25 years	2 (6.0%)
25-34 years	15 (45.5)
> 35 years	16 (48.5)
Gender	
Male	11 (33.3)
Female	22 (66.7)
Nationality	
Kuwaiti	20 (60.6)
Non-Kuwaiti	13 (39.4)
Job title	
Junior pharmacist	6 (18.2)
Pharmacist	8 (24.2)
Specialist pharmacist	10 (30.3)
Senior pharmacist	5 (15.2)
Clinical pharmacist	2 (6.1)
Head of the pharmacy department	2 (6.1)
Years of experience	
0-5	8 (24.2)
6-10	10 (30.3)
>10	15 (45.5)
Number of CPD events attended in the last two years	
0-5	18 (54.5)
6-10	6 (18.2)
>10	9 (27.3)

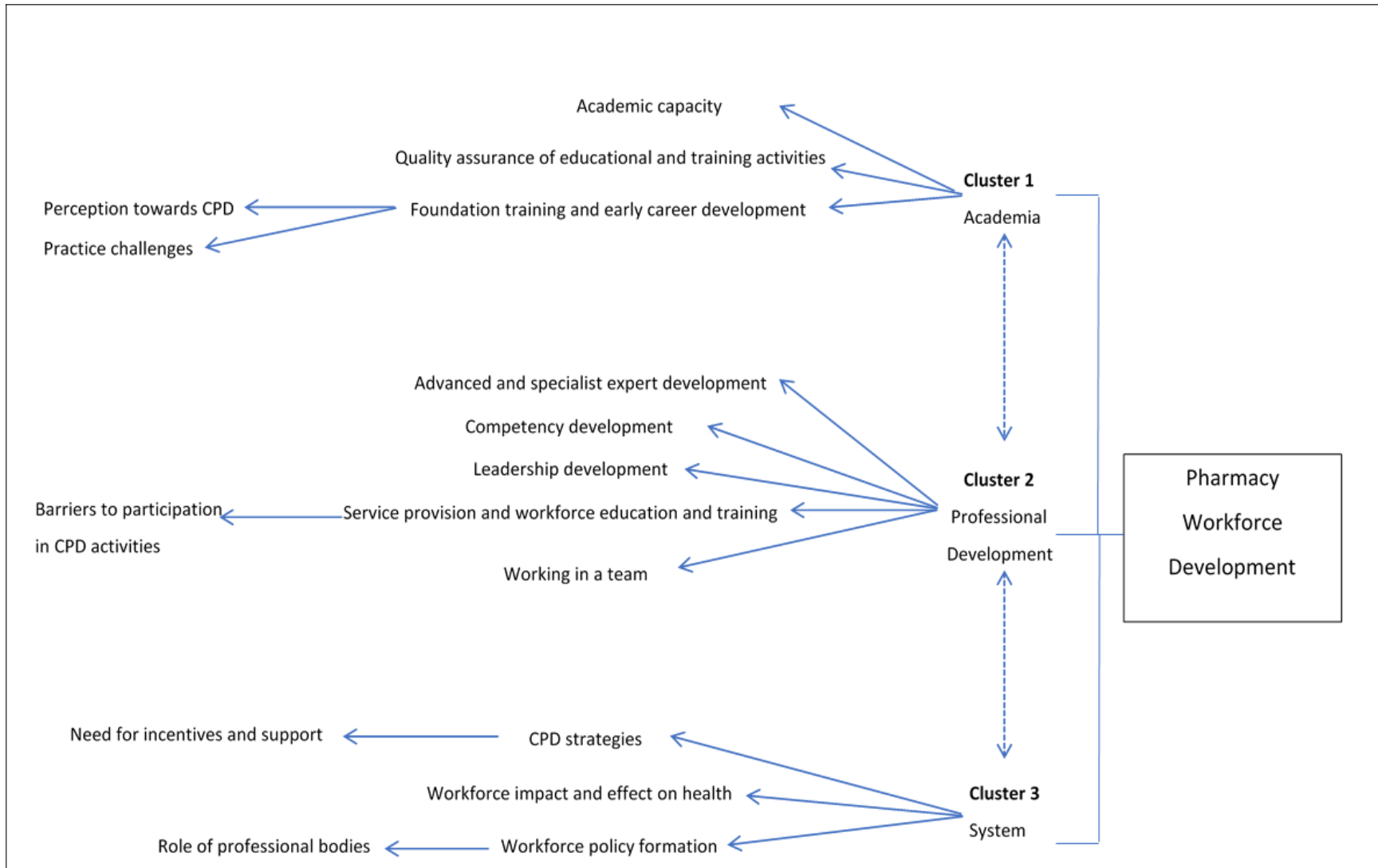


Figure 2: The coding process and analysis for the study

Appendix 1: Pharmacists' focus group interview guide

Participants' profile:

Place of interview: -----

Date: ----- **Time:** -----

Introduction:

Send the Sign-In Sheet with a few quick demographic questions (age, gender, cadre, yrs in practice, practice site, number of Continuing Professional Development (CPD) activities in the last 2 years) around to the group while you are introducing the focus group.

Welcome to our session today. Thanks for taking time to join me to talk about Continuing Professional Development (CPD) for pharmacists in Kuwait. My name is Asmaa Al-Haqan and I am conducting a study which aims to assess the needs for a structured CPD programme for pharmacists and to identify preferences and barriers to attend CPD for pharmacists in Kuwait. I will be asking few questions and facilitating the group discussion today. This session will be tape recorded so I can focus in the discussion and in the same time not missing any of your important comments. You can be assured of complete confidentiality as ideas and comments discussed will not be linked to individual name. There are no right and wrong answers rather differing point of views. Please feel free to share your thoughts with the group.

Opening question: tell us your name, your practice site and what do you like about being a pharmacist?

- 1- **When I say the words “Continuing Professional Development for Pharmacists” what is the first idea that comes to your mind?** (go around the table)
- 2- **How do you keep your knowledge updated?** (*Probe: Conferences, workshops, Apps, Discussion with colleagues*)
- 3- **How do you improve your skills in practice?**
 - a. What skills do you use mostly in your practice?
 - b. What skills do you think you need to improve your practice? Why?
- 4- **When was the last CPD activity you attended?**
 - a. What was it about?
 - b. Talk more about your experience (*Probe: what made it good, what made it bad*)
- 5- **What CPD lectures/programmes are available to you?**
 - a. Where are most CPD activities provided?
 - b. How do you know about CPD activity? (*Probe: media, colleagues, brochures, emails*)
 - c. What CPD/training do you think you need the most? Why?
- 6- **Think about the most important topics that a CPD activity should cover for pharmacists in Kuwait. Write the three most important topics to you in the paper in front of you. In a moment we will share these with each other.** (Use the flipchart for this question, write all answers and then ask participants to rank/prioritise the first three most important ones)
- 7- **Think about the barriers that prevent you from attending any CPD activity. What makes it difficult to attend a CPD/training programme? Write the three most important barriers to you in the paper in front of you. In a moment we will share these with each other.** (Use the flipchart for this question, write all answers and then ask participants to rank/prioritise the first three most important ones) - **How to do you think we can overcome these barriers?**
- 8- Who do you think should provide CPD/training for pharmacists in Kuwait?
- 9- **Closing questions:**
 - a. **Suppose you hold the matter of CPD for pharmacists in Kuwait in your hand (you have a complete authority) what is the first thing you would do in this matter?**
 - b. **Short summary of the discussion How well does that capture what was said here?**

- c. **Short overview of the purpose of the study Is there anything that we should have talked about but didn't?**
- 10- Do you want to add anything?**

Appendix 2: Individual (CPD providers') interview guide

Participants' profile:

Place of interview:

Date:

Time:

Introduction:

Thanks for taking the time to meet me today to talk about Continuing Professional Development (CPD) for pharmacists in Kuwait. My name is Asmaa Al-Haqan and I am conducting a study which aims to assess the needs for a structured CPD programme for pharmacists and to identify preferences and barriers to attend CPD for pharmacists in Kuwait. I will be asking few questions. This session will be tape recorded so I can focus in the discussion and in the same time not missing any of your important comments. You can be assured of complete confidentiality as ideas and comments discussed will not be linked to individual name.

Questions

1- Opening question:

- a. **Can you tell me more about yourself and explain your role in regard to CPD**

2- What CPD lectures/programmes are currently provided to pharmacists?

- a. When was the last CPD activity organised? Where?
- b. What was the last CPD activity organised? (*Probe: subject, lecturer, audience*)
- c. Where are most of the CPD activities provided?
- d. How many pharmacists usually attend a CPD/training programme?
- e. Who funds CDP/training which you organise?

3- How do you announce for the organised CPD? (*Probe: media, brochures, emails*)

4- What CPD/training do you think pharmacists need the most? Why?

- a. How do you think should the topic of a CPD/training be decided?

5- What makes it difficult to organise a CPD/training programme?

6- Who do you think should provide CPD/Training for pharmacists?

7- What future plans do you have for CPD/training for pharmacists in Kuwait?

8- Ending questions:

- a. **Suppose you have one minute to talk to the governor of the CPD in Kuwait. What would you say?**
- b. **Short summary of the discussion How well does that capture what was said here?**
- c. **Short overview of the purpose of the study Is there anything that we should have talked about but didn't?**

9- Do you want to add anything?