

Advancing the pharmacy practice research agenda: views and experiences of pharmacists in Qatar

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Abstract *Background* There is little emphasis on pharmacy practice research in Qatar, with a lack of relevant education and training and a notable lack of exposure to processes of research. *Objective* To describe views and attitudes of pharmacists in Qatar to pharmacy practice research prior to and following a 2 day introductory research workshop. *Method* All pharmacists ($n = 350$) were invited to express interest in attending. All participants were required to complete a questionnaire covering views and attitudes relating to research. Workshop sessions were on: research questions; critically appraising literature; developing research methods; collecting and analysing data; and disseminating findings. Participants completed a post-course evaluation questionnaire. *Results* Of the ninety expressing interest, 47 were selected and participated in the first training day, with 40 of these also attending the second day. Participants expressed positive views and attitudes towards research. Most (46/47) strongly agreed/agreed that it was their professional duty to be involved; all strongly agreed/agreed with importance of an evidence base to support practice; but there were issues around time, support and training. The research workshops were positively evaluated by participants. *Conclusion* Findings indicate pharmacists' willingness to participate in research training in Qatar. However, there is a need to ensure that views and attitudes translate into research participation thus enhancing the evidence base.

Keywords Education and training · Pharmacy practice research · Pharmacist opinions · Qatar

Impact of findings on practice

- The positive views and attitudes of pharmacists in Qatar in relation to pharmacy practice research are key in advancing the evidence base
- While the introductory research workshop described could be delivered in any setting, there is a need to ensure that participation in training translates to participation in pharmacy practice research.

Introduction

Evidence based medicine, defined as 'the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients' [1], is key to modern healthcare. Integration into pharmacy practice involves core steps of: defining answerable questions; systematically retrieving and critically appraising the best evidence available; applying findings; and evaluating the outcome [2].

Roberts and Kennington recently highlighted the need for pharmacy practice research to generate quality evidence to further service development and hence improve patient care [3]. All pharmacists therefore require an appreciation and understanding of research structures, processes and outcomes.

However, studies from the United Kingdom (UK) [4, 5] and Australia [6] have shown that despite pharmacists being aware of the value of research and evaluation of current practice, they are less likely to participate in research themselves. This is not an issue just for

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pharmacists, but also among other health professional groups. Using a qualitative approach with physicians, Salmon et al. [7] noted that research was considered an alien field for physicians, lacking professional or clinical value and being incompatible with patient centred care, and highlighting a critical lack of time to participate in research. Similar views have been expressed for nurses [8]. Bower et al. [9] stressed the need for health professionals to view research participation as part of routine care or quality assurance and as such be a positive contribution to health services development rather than an exceptional activity, but acknowledged this to be a major challenge.

The Hamad Medical Corporation (HMC) in Qatar was established in 1979 as the main healthcare provider in Qatar, and today consists of eight hospitals, with another three scheduled to open by 2014, employing around 350 pharmacists and 150 pharmacy technicians. During recent years, pharmacy services have evolved from mainly supply functions to a more clinically focused service with pharmacists providing ward based clinical roles. To date, there has been little emphasis on pharmacy practice research in Qatar and as such, pharmacists have had very little education and training related to pharmacy practice research and a lack of direct experience and exposure to processes of research. One of the strategic aims of HMC is to increase the capacity of conducting pharmacy related research that will advance health care delivery in line with the national health strategy 2011–16 and the Qatar national vision 2030 [10]. In August, 2011, under the aegis of the Supreme Council of Health, HMC and Weill Cornell Medical Center-Qatar (WCMC-Q), launched a national Academic Health System (AHS) initiative, integrating education, research and clinical care under a national umbrella to promote the highest quality of patient care, academic excellence, pioneering research and a healthy population. There is therefore an urgent need to increase the emphasis, importance and relevance of pharmacy practice research.

Aim of the study

The aim of this study was to describe the views and attitudes of HMC pharmacists in Qatar to pharmacy practice research prior to and following a 2 day introductory pharmacy research workshop.

Methods

All HMC pharmacists ($n = 350$) were invited by email to express interest in attending an introductory 2 day pharmacy practice research training workshops to be held in Qatar from 28 to 29 October 2011. The numbers attending were limited to around 40. Prior to the workshops, all

participants were required to complete a questionnaire covering views and attitudes relating to pharmacy practice research. Questions were derived from previously published research relating to pharmacy practice research in the UK [3, 4]. Comments on face and content validity were provided by four experienced academic researchers and pharmacy practitioners (two from Scotland, two from Qatar). The questionnaire, which mainly consisted of 5-point Likert statements and closed response questions, was formatted using Snap10 Professional (software for web and email questionnaire design, publication, data entry and analysis) and hosted online. The survey instrument generated anonymised email responses to the research team which were exported to SPSS (SPSS Inc., Cary, NC version 17.0).

Participants were selected to prioritise those working in clinical areas, with equal distribution amongst all hospitals. Two consecutive days of interactive, small group, introductory workshops were delivered in Qatar by experienced pharmacy practice academics and researchers from Robert Gordon University, UK. Sessions were devoted to: defining research questions, aims, hypotheses and objectives; retrieving and critically appraising published literature; developing and validating quantitative and qualitative research methods; collecting, generating and analysing data; and disseminating findings.

Following attendance, participants completed a questionnaire evaluating the sessions in terms of meeting learning outcomes, content, level of difficulty, duration, balance between didactic teaching and small group interactive work, perceived confidence in undertaking pharmacy practice research and identified further research related training needs.

Responses from pre and post course questionnaires were analysed using descriptive statistics.

Results

The course was heavily over-subscribed with 90 expressing interest, forty-seven were selected and participated in the first day of training and 40 of these attended the second day. Participants were junior and senior hospital pharmacists. Four non-pharmacists (two physicians, one pharmacy technician and one podiatrist) also expressed interest and attended both days. Pharmacists had completed undergraduate training in Jordan, Lebanon, Egypt, India, Russia and Pakistan.

All participants completed the pre-course questionnaire. Responses given in Table 1 demonstrate the positive attitudes and clearly identified practice research training needs. Almost all (46, 97.9 %) agreed that it was their professional duty to be involved in pharmacy practice research and 41 (87.2 %)

disagreed that pharmacy practice research was of little importance to their organisation. While 45 (95.7 %) agreed that they felt confident in their abilities to undertake pharmacy practice research, less (19, 40.4 %) agreed that they had experience of being involved in pharmacy practice research and 16 (34.0 %) agreed that they had already received sufficient training to undertake pharmacy practice research.

Most felt they were likely to be involved in all aspects of pharmacy practice research: critical appraisal [yes 33 (70.2 %), unsure 5 (10.6 %), no 9 (19.1 %)]; design of research studies [yes 33 (70.2 %), unsure 9 (19.1 %), no 5 (10.6 %)]; collection and generation of research data [yes 38 (80.9 %), unsure 6 (12.8 %), no 3 (6.4 %)]; analysis and interpretation of research data [yes 37 (78.7 %), unsure 5 (10.6 %), no 5 (10.6 %)]; and dissemination of research (reports, conference presentations, published papers) [yes 34 (72.3 %), unsure 6 (12.8 %), no 7 (14.9 %)].

Thirty-seven participants (92.5 %) completed the evaluation questionnaire (Table 2). Of note, 25 (67.7 %)

agreed that all learning outcomes had been achieved, 31 (83.8 %) agreed that they felt confident to engage in pharmacy practice research and 32 (86.5 %) agreed that they were more able than before to identify their research learning needs. All were interested in receiving more information on research training and 25 (67.6 %) agreed that the workshop could be enhanced by the inclusion and participation of other healthcare professionals.

Discussion

Key findings of this research indicate pharmacists' willingness to participate in research training and their expectations of being involved in all aspects of research. The participants rated highly the value of pharmacy practice research and associated training, yet there is a need to ensure that these translate into actual participation and advancement of the evidence base to support practice

Table 1 Pre-course questionnaire responses, *n* (%), *N* = 47

	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
I feel that it is my professional duty to be involved in pharmacy practice research	30 (63.8)	16 (34.0)	1 (2.1)	0	0
Pharmacy practice research is important to develop an evidence base to support pharmacy practice	38 (80.9)	9 (19.1)	0	0	0
Pharmacy practice research is of little importance to me	3 (6.4)	1 (2.1)	3 (6.4)	17 (36.2)	23 (48.9)
Pharmacy practice research is of little importance to my organisation	2 (4.3)	2 (4.3)	2 (4.3)	22 (46.8)	19 (40.4)
Pharmacy practice research is of little relevance to practising pharmacists	2 (4.3)	2 (4.3)	4 (8.5)	20 (42.6)	19 (40.4)
I have sufficient time within my daily work to undertake pharmacy practice research	4 (8.5)	13 (27.7)	19 (40.4)	9 (19.1)	1 (2.1)
I have sufficient IT support to undertake pharmacy practice research	8 (17.0)	14 (29.8)	19 (40.4)	4 (8.5)	2 (4.3)
I have sufficient administrative support to undertake pharmacy practice research	5 (10.6)	19 (40.4)	17 (36.2)	3 (6.4)	1 (2.1)
Pharmacy practice research is more suited to academics rather than pharmacists	2 (4.3)	2 (4.3)	9 (19.1)	22 (46.8)	12 (25.5)
I already have sufficient training to undertake pharmacy practice research	4 (8.5)	12 (25.5)	12 (25.5)	18 (38.3)	1 (2.1)
I already have experience of being involved in pharmacy practice research	4 (8.5)	15 (31.9)	8 (17.0)	16 (34.0)	3 (6.4)
Other healthcare professionals I work with are involved in research	7 (14.9)	18 (38.3)	14 (29.8)	7 (14.9)	1 (2.1)
Pharmacy practice research is important to my career	28 (59.6)	16 (34.0)	2 (4.3)	0	0
I am confident in my ability to undertake pharmacy practice research	22 (46.8)	23 (48.9)	2 (4.3)	0	0
Pharmacy practice research is already an integral and normal part of my practice	6 (12.5)	17 (36.2)	9 (19.1)	11 (23.4)	1 (2.1)

Table 2 participant course evaluation feedback *n* (%), *N* = 37

	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
All the learning outcomes have been achieved	8 (21.6)	17 (45.0)	10 (27.0)	2 (5.4)	1 (2.7)
My knowledge of pharmacy practice research has been enhanced	6 (16.2)	24 (64.9)	6 (16.2)	1 (2.7)	0
I found the content to be relevant to my practice	7 (18.9)	24 (64.9)	5 (13.5)	1 (2.7)	0
I now feel confident to engage in pharmacy practice research	12 (32.4)	19 (51.3)	4 (10.8)	2 (5.4)	0
The duration of the workshops was appropriate	5 (13.5)	11 (29.7)	5 (13.5)	16 (43.2)	0
The level of difficulty was appropriate	4 (10.8)	21 (56.8)	10 (27.0)	2 (5.4)	0
The pace of delivery of the workshops was appropriate	10 (27.0)	20 (54.1)	5 (13.5)	2 (5.4)	0
There was an appropriate balance of presentations and group work	10 (27.0)	19 (51.3)	5 (13.5)	3 (8.1)	0
My group worked well together	11 (29.7)	19 (51.3)	3 (8.1)	4 (10.8)	0
The profiling completed prior to the workshop contributed to the effective working of my group	4 (10.8)	16 (43.2)	11 (29.7)	6 (16.2)	0
I feel that the workshop could be enhanced by the inclusion and participation of other healthcare professionals	3 (8.1)	22 (59.5)	6 (16.2)	6 (16.2)	0
I am now more able to identify my learning needs for research	7 (18.9)	25 (67.6)	4 (10.8)	1 (2.7)	0
I would be interested in receiving more information on research training	25 (67.6)	12 (32.4)	0	0	0

developments. Although these findings are in line with the published literature in terms of appreciation of the value of research [3, 7–10], there is a clear and expressed desire for further research training and support from peers as well as identified needs of dedicated research time, administrative and technical support.

Our research is limited by the potential lack of representativeness of those pharmacist expressing interest and being selected for participation in training with subsequent implications for generalisability of findings to all pharmacists employed by HMC in Qatar.

The low sample sizes prevented inferential statistical analysis to characterise those pharmacists most interested in pharmacy practice research. This was the very first pharmacy practice research training course for pharmacists in Qatar. We now propose to systematically conduct a formal assessment of research training needs of all pharmacists employed by HMC. The specific objectives are to determine: current levels of education, training, participation and experiences in research; attitudes towards and aspirations in research; facilitators and barriers towards research; influences on professional change and the adoption and diffusion of innovations relating to pharmacy practice research. Results will inform the development of a nationwide pharmacy practice research strategy. This approach could also be extended to a multidisciplinary audience.

Conclusion

Findings indicate pharmacists' willingness to participate in research training. However, there is a need to ensure that views and attitudes translate into research participation thus enhancing the evidence base.

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Conflicts of interest There are no conflicts of interest to declare.

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