Understanding Educational Needs of Pharmaceutical Stakeholders: Pharmacy Operators

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INTRODUCTION

The pharmaceutical workforce is an essential part of the healthcare team that plays a vital role in optimising patients' use of medicines to achieve better health outcomes.[1] A capable, adaptable and flexible workforce is crucial to meet the pharmaceutical needs of the patient.[2] The pharmaceutical workforce is composed of individuals, professionals and non-professionals with varied skill sets. Provision of effective pharmaceutical services are only possible with an efficient pharmaceutical workforce, which can only be achieved through firm foundations in education and training.

Pharmacists are at the frontline of healthcare service provision, considered as the most accessible of all healthcare workers.[1] For the past decade, the pharmacists' role has shifted from being product-driven to a patient-oriented member of the health system.[3] Pharmacy technicians and other pharmaceutical support workforce have to take in additional roles and responsibilities to aid in reducing the work burden of pharmacists and concentrate their time on patient-centered activities.

This study focused on pharmaceutical operators, consisting of storekeepers, drivers, delivery personnel, and support personnel assigned in inventory, preparation and summation of order, logistics, production, procurement, warehouse area and others. The educational needs of pharmaceutical operators and support personnel who are responsible for pharmacy operations involving the storage, inventory, manufacture, and distribution of medicines require structural planning.

AIMS

The purpose of this study was to identify and understand the educational needs of pharmaceutical operators identified through the development of a questionnaire.

METHOD

Questionnaire Development and Validation

A questionnaire entitled 'Questionnaire for Pharmaceutical Operators-Managers/Supervisors (QPO-M/S)' was developed to assess the needs of pharmaceutical operators. Seven individuals from different fields of pharmacy were selected to validate the questionnaire.

The questionnaire was divided into four sections. The first section is demographics. The second section consisted of a list of training topics where respondents had to identify topics in which training had been received or provided and rated each topic according to its relevance to the operators' practice. The topics were divided into five main areas:

(i) Medication - product knowledge
(ii) Patient safety, quality assurance and order entry
(iii) Good Distribution Practices/ Good Manufacturing Practices
(iv) Computer systems
(v) Personal/Interpersonal knowledge and skills

The third section included statements towards training courses to which respondents evaluated according to the degree of agreement, using a 5 point Likert-scale, from 1 to 5 (1 strongly disagree). In Section 4, respondents identified their preferred method of course delivery.

Dissemination

The questionnaire was prepared online using google form. Purposive sampling was used for the dissemination to respondents from different fields of Pharmacy.

RESULTS

Perception of pharmaceutical operators and managers/supervisors towards training courses

Pharmaceutical operators rated the first and second statements lower (mean = 3.7) in comparison to managers/supervisors (mean = 4.4). For the third statement, managers/supervisors gave a relevance mean of 3.8, which is slightly lower than that of the pharmaceutical operators with a mean of 4.1. Statements four and five had relatively similar results, both topics received a mean of 4.4 and 4.3 from managers/supervisors and pharmaceutical operators respectively (Figure 1).

Pharmaceutical operators (mean 4.4) agreed more to the statement of training being required for operators than managers/supervisors (mean = 4). Pharmaceutical operators also agreed with the last statement that employers should finance the training, with a mean of 4.4 while managers/supervisors gave a mean of 3.4 on the premise.

Summary of training topics with highest relevance mean of 5

Pharmaceutical operators gave a high level of importance on two topics relating to medication-product knowledge and computer systems, namely 6 out of 15 topics on Good Distribution/Manufacturing Practice and one topic on personal and interpersonal skills. Managers and supervisors provided high level of relevance largely on topics under good distribution practices (6 out of 15) and one topic on patient safety, quality assurance and order entry and on personal and interpersonal skills (Table 1).

Figure 1. Comparison of results between managers/supervisors and pharmacy operators

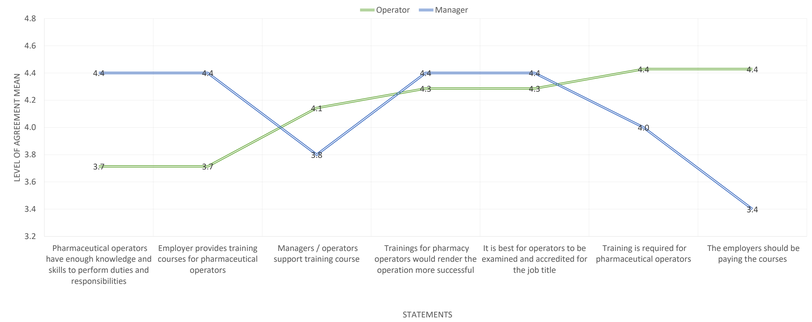

Table 1. Summary of training topics which received the highest mean relevance of 5

Training Topics	Operators	Managers
(i) Medication - product knowledge	Calculation of quantity to supply	Lot numbers, expiration dates
	Reading and understanding of drug labels	Overview of Good Distribution Practices
(ii) Patient safety, quality assurance and order entry	Overview of Good Distribution Practices	Cold chain management
iii) Good Distribution Practices/ Good Manufacturing Practices	Product temperature requirements and profiling	First In-First Out (FIFO)/ First Expiry First Out (FEFO)
	Temperature mapping and monitoring	Hazardous substances exposure, prevention and treatment (e.g., eyewash, spill kit, MSDS)
	First In-First Out (FIFO)/ First Expiry First Out (FEFO)	
	Transport vehicle validation, external packaging, labelling	Identification and handling of suspected falsified medicinal products
	Protection of fragile items	
(iv) Computer systems	Computer literacy (e.g., Microsoft word, Excel)	Quality management system (standard operating procedures, quality manual, quality policy)
	Pharmacy-related computer applications	
(v) Personal/Interpersonal knowledge and skills	Interpersonal skills (e.g., negotiation skills, conflict resolution, customer service and teamwork)	Problem solving skills

CONCLUSION

Understanding pharmaceutical operators perception of having training courses and identification of their educational needs present opportunities for operators to perform additional duties and responsibilities, empower them and possibly increase efficiency and best practices in operations.

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