Meeting Educational Needs of Pharmaceutical Stakeholders: Community Practice

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Dijana Bibic

Department of Pharmacy

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Abstract

Pharmacy support staff roles have evolved following the implementation of more patient-centered pharmacy services and the expanding role of community pharmacists in the primary health care system. A relevant level of competence of the community pharmacy working team is essential to meet the expanding scope of patient-focused practice.

The aim of this study was to describe current pharmacy support staff structures in community pharmacy in Malta, and to identify education and training needs for pharmacy support staff.

A self-administered questionnaire was created in Google Forms, validated and disseminated online via the Facebook group 'Maltese Pharmacists and Pharmacy students' with instructions to be completed by managing pharmacists who practice in a pharmacy which is part of a group or in an independent pharmacy. The questionnaire addresses pharmacy support staff structure, expected skills, health care services which pharmacy support staff could be trained on, and additional educational and training needs. Descriptive statistics were calculated. A one-hour focus group discussion on five validated open-ended questions was conducted online via Zoom application between six participants included in recruitment process of pharmacy support staff. Data was analysed using the content analysing method.

Sixty managing pharmacists responded to the questionnaire; 30 practicing in a pharmacy which is part of a group and 30 in independent pharmacies. The identified pharmacy

support staff structure consisted mostly of salespersons (n=53), followed by pharmacy student trainees (n=27). As regards pharmacy support staff skills, managing pharmacists from independent pharmacies considered communication skills as most important (n=27) and pharmacists from pharmacies part of a group considered motivation to learn as most important (n=25). Communication skills were considered very important by 5 of the 6 focus group participants. The majority of the managing pharmacists recognised the potential of support staff to be trained on various health care services mostly drug waste management (n=51), monitoring of blood pressure (n=39) and dispensing of medicines through the Pharmacy of Your Choice national health service scheme (n=38). Managing pharmacists suggested that educational training for support staff include the training on non-prescription products (n=9), skin care (n=7) and nutrition supplements (n=7). The focus group participants suggested practical training on topics including non-prescription medicines, cosmetics and self-care and highlighted the importance for non-pharmacist staff to know when to refer a patient to the pharmacist. The managing pharmacists from both groups agreed that additional training would ensure a consistent (n=48) and higher level of pharmacy service provision (n=43) and increase patient satisfaction (n=43). The focus group participants agreed that the support staff training would increase in professionalism (n=4).

Respondents in this study emphasised communication skills and motivation to learn as very important skills for pharmacy support staff. The study indicates that pharmacy support staff have the potential to be engaged more in following increased and more complex health care needs of the community. The targeted topic areas for further training of non-pharmacist staff included non-prescription products, skin care, nutrition and food supplements.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

BMI	Body mass index
CBPE	Competency-based pharmacy educational
CE	Continuing education
CPS	Cognitive pharmaceutical services
DFU	Danish University of Pharmaceutical Sciences
DRP	Drug-related problem
FIP	International Pharmaceutical Federation
FREC	Faculty of Medicine and Surgery Research Ethics Committee
GPhC	General Pharmaceutical Council
MCAST	Malta College of Arts, Science & Technology
NHS	National Health Service
POYC	Pharmacy of Your Choice
PBA	Pharmacy Board of Australia
RFQ	Regulated Qualifications Framework
SPSS®	Statistical Package for the Social Sciences
SQF	Scottish Credit and Qualifications Framework
USA	United States of America
WHO	World Health Organisation

Chapter 1

Introduction

1.1 Healthcare challenges and community pharmacy

The range of delivered pharmaceutical services in community pharmacy has been extended from ensuring medicines availability to providing clinical services, resulting in the evolvement of the roles and working scope of all the pharmacy working team (Koehler and Brown, 2017a). The working scope of community pharmacists in Europe has started to become more patient-focused. Innovative pharmacist-led services such as medication review, monitoring and support of adherence, renewal of prescriptions, opioid substitution and travel medicine have been implemented at a high rate across Europe (Soares et al, 2019).

The implementation of these advanced services may be hindered by the lack of time which pharmacists can dedicate towards clinical tasks (van de Pol et al, 2019). In order to enable the incorporation of a wider range of patient care services in community pharmacy practice, the right level of competence of the whole pharmacy working team is identified as essential (Bradley et al, 2013). As part of the team, pharmacy support staff play a key role in freeing up time for pharmacists to perform the innovative pharmacy services (Schafheutle et al, 2008).

The shifting roles within community pharmacy practice need to be followed by appropriate changes in education of all the pharmacy working team (Marriott, 2018). This entails community pharmacists following advanced courses and continual professional

development by focusing more on evolving their clinical skills.[1] Among the primary accessible health professionals, community pharmacist must be supported by adequate technologies, greater access to patients' electronic health records[1] and by appropriately trained and skilled support staff capable of performing various time-consuming tasks (Schafheutle et al, 2017; Ilardo and Speciale, 2020).

1.2 Community pharmacy working team

The identified diversity of support staff structures across countries reflects the differences between low, middle- and high-income countries regarding the availability of pharmacists and education programs for support staff, the provided range of healthcare services in the community, legislation requirements and remuneration issues (Koehler and Brown, 2017b).

In most European countries the community pharmacy working team consists of pharmacists and pharmacy support staff [2] including pharmacy technicians as the most presented part of support staff structure. In Nordic countries the pharmacy working team also includes prescriptionists and nurses. A multitude of different titles including 'auxiliary staff', 'salesperson', 'pharmacy assistant' are used to describe the working

[1] European Pharmacists Forum (EPF). An EPF white paper and call to action: The role of pharmacy in supporting the public's health [Internet]. 2015 [cited 2020 May 15]. Available from: https://ec.europa.eu/eip/ageing/library/white-paper-role-pharmacy-supporting-publics-health_en

[2] World Health Organization Regional Office for Europe. The legal and regulatory framework for community pharmacies in the WHO European Region [Internet]. World Health Organization (WHO); 2019 [cited 2020 April 10]. Available from: https://apps.who.int/iris/bitstream/handle/10665/326394/9789289054249-eng.pdf?sequence=1&isAllowed=y

position of other support staff in England, Ireland, Iceland, Malta, The Netherlands, Norway, Portugal, Spain, Sweden and Switzerland (Martins et al, 2015). The inclusion of the support staff categories who are not pharmacy technicians in the pharmacy working team is not followed by established and standardised requirements for their practice area in all countries (Martins et al, 2015; Koehler and Brown, 2017b).

Although the rising pressure on the healthcare system caused by growing and ageing populations has to be accompanied by increasing the number of healthcare workers, this is not accomplished across countries. Significant effort has already been done in improving healthcare workforce availability, however the progress is not fast enough.[3] According to the World Health Organisation (WHO), the estimated shortage of skilled healthcare professionals by 2030, including the pharmacy workforce, is around 18 million (Darzi and Evans, 2016).

The need to have a highly skilled health workforce greatly outweigh the necessity to reach a statistically required number of workers. This entails a need to address the potential contribution of different types of workers, putting in focus mid-level health teams to work collaboratively with pharmacists.[4] Mid-level health teams are described as pre-service trained health workers at a higher education institution, for at least two to three years,

[3] International Pharmaceutical Federation (FIP). One FIP-Creating the Vision [Internet]. The Hague: FIP; 2020 [cited 2020 May 23]. Available from: https://www.fip.org/files/content/publications/2020/FIP-Annual-Report-2019.pdf

[4] World Health Organization (WHO). Global strategy on human resources for health: Workforce 2030 [Internet]. Geneva: WHO; 2016 [cited 2020 May 16]. Available from: https://www.who.int/hrh/resources/global_strategy_workforce2030_14_print.pdf?ua=1

who can perform tasks, usually conducted by health professionals with a higher level of education. Mid-level workers are widely approachable and their 'production process' is cost-beneficial requiring less time in comparison with education of health professionals. Pharmacy technicians and other pharmacy support staff are considered as an important subset of mid-level health providers and have been more engaged to compensate the scarcity in the pharmacists' workforce (Koehler and Brown, 2017b). The growing need for mid-level workers is noticeable particularly in developing countries. An alarming need for these workers is noticed in India, in order to face the growing burden of diseases and to achieve an optimum health coverage (Desai et al, 2020). The healthcare system in Africa mostly relies on mid-level workers. These cadres tend to stay longer in rural regions, working less dependently on latest technology. Despite their growing role in both, low-and high-income countries, mid-level workers have neither been properly implemented in long-term working planning nor remunerated (Couper et al, 2018).

Following WHO and International Pharmaceutical Federation (FIP) suggestions, more professional discussions have to be conducted internationally to address the working scope, educational needs and skills of pharmacy support staff to enhance professional visibility.[5]

[5] World Health Organization (WHO). Mid-level health providers a promising resource to achieve the health Millennium Development Goals [Internet]. Geneva: World Health Organization (acting as the host organization for, and secretariat of, the Global Health Workforce Alliance); 2010 [cited 2020 May 19]. Available from: https://www.who.int/workforcealliance/knowledge/resources/Final_MLP_web_2.pdf

1.3 World Health Organization and International Pharmaceutical Federation guidelines as a basis for pharmacy support staff education

Summarising all recommendations given through WHO 2030 and annually published FIP reports on 'Pharmacy Education Taskforce', it is clear that the education strategy for the entire pharmacy workforce has to be flexible and adaptable, accessible to all cadres and modelled to meet local needs.[6, 7] By promoting one universal educational program the different needs of developed and developing countries would not be adequately recognised (Bheekie et al, 2019). A promoted model of education is a needs-based education program (Figure 1.1) which entails an ability-based learning system applicable in different working settings.[6,7]

The starting point in developing curricula for health education should be an assessment of various population health needs. In both developed and developing countries, education curricula have been changing to address patient-centered needs. Developing countries are not supported by external stakeholders and face the lack of information technology necessary to form a patient health evidence base, hence a population-centered rather than a patient-centered educational framework and health system is more appropriate for developing countries (Bheekie et al, 2019).

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[6] International Pharmaceutical Federation (FIP). Global vision for Education and Workforce [Internet]. FIP; 2016 [cited 2020 May 20]. Available from: https://www.fip.org/files/fip/PharmacyEducation/Global_Conference_docs/FIP_global_vision_online_version.pdf

[7] International Pharmaceutical Federation (FIP). Transforming Pharmacy and Pharmaceuticals Sciences Education in the Context of Workforce Development [Internet]. The Hague: FIP; 2017 [cited 2020 May 21]. Available from: https://www.fip.org/file/1387

A growing issue for the health system is the migration of health workers mostly to an urban and high-income country. Considering this, the education program for the whole pharmacy workforce has to provide comprehensive and transferable knowledge to satisfy both, international and local market requirements.[4]

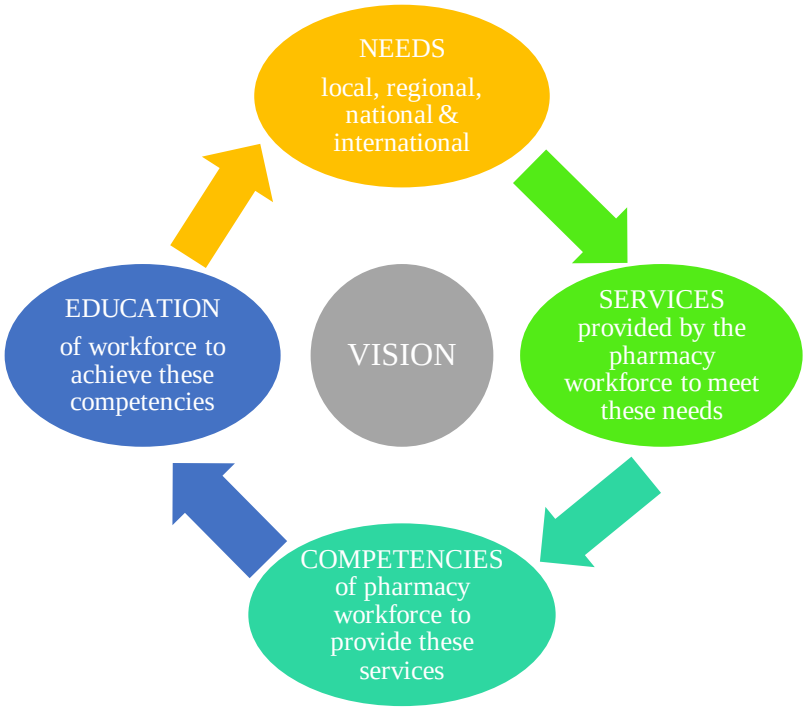

Figure 1.1: International Pharmaceutical Federation needs-based education model

Adapted from: International Pharmaceutical Federation (FIP). Transforming Pharmacy and Pharmaceuticals Sciences Education in the Context of Workforce Development [Internet]. The Hague: FIP; 2017 [cited 2020 May 21]. Available from: https://www.fip.org/file/1387

This educational model should equip all the pharmacy workforce with the right level of competencies to work collaboratively in the inter-professional primary care team.[4] In order to ensure the required level of relevant knowledge, skills and appropriate behaviour in a variety of working situations, the implementation of a competency-based pharmacy educational (CBPE) model is important. The implementation of CBPE is a long process

and requires the support of national policy and regulatory bodies (Koster et al, 2017). Education providers have to ensure the right level of capability of their trainers who must follow all changes and shifting roles between the pharmacy working team.[8]

1.4 Formal education of pharmacy support staff

Most European countries have implemented specific requirements for some of the pharmacy support staff categories regarding their minimum formal level of education. The pharmacy technician is the most presented category of pharmacy support staff across countries and their formal education varies in the number of years of available education programmes. Mostly the education course for pharmacy technician lasts between two and four years, following post-secondary diploma level in a professional college/high school or a Bachelor's degree at a University (Martins et al, 2015). There is a correlation between the required starting level of education and the further complexity of practice activities in community pharmacy. Depending on their educational background, pharmacy technicians have taken up different roles in the United States of America (USA), Australia and the Netherlands (Oliveira de Melo et al, 2017). According to Boughen et al (2020), Denmark and Portugal are countries where pharmacy technicians have a Bachelor's baseline degree and consequently, their entailed skills and working activities are more enhanced.

[8] International Pharmaceutical Federation (FIP). Pharmaceutical Workforce Development Goals [Internet]. The Hague: FIP; 2016 [cited 2020 May 20]. Available from: https://www.fip.org/files/fip/PharmacyEducation/Global_Conference_docs/WDGs_online_version.pdf

By implementing Articles 14 and 18, Part III of Chapter 464 of the Health Care Professions Act (2003)[9], Malta has established requirements for pharmacy technicians by defining their working scope and responsibilities. According to this legislation, all professional activities in community pharmacy in Malta are under the pharmacists' responsibility. The pharmacy technicians have to follow a diploma level of training in a professional college, while pharmaceutical technologists follow a Bachelor's degree at University. Countries including Denmark, the UK, Canada, the USA and South Africa require the registration of some pharmacy support staff cadres (Koehler and Brown, 2017a), while in Australia and Spain, registration is not requirement (Koehler and Brown, 2017b). The pharmacy technician in Malta has to be registered with the Pharmacy Council.

Formal education of other categories of pharmacy support staff varies greatly from shorter certificate level following a vocational program to work-based learning with different contents of training curricula (Martins et al, 2015). Middle- and high-income countries have regulated this education area, while low-income countries have been forced to find their 'own way of producing' different categories of workers through shorter training avoiding all formal educational infrastructures.[5] Globally, there is a lack of papers documenting the relevance of education curricula, appropriate teaching methodology and training persons competence for mid-level support staff. Their training program needs to be reviewed and updated to ensure competencies and increase patients' and pharmacists' confidence (Couper et al, 2018).

[9] Health Care Professions Act, Cap.464 of the Laws of Malta, Part III (2003). https://legislation.mt/eli/cap/464/eng/pdf.

1.5 Training for impact

It is not feasible to design one practice model equally effective for the education of all pharmacy support staff across countries. Developing a 'fit for purpose' pharmacy worker will result in optimising human resources capacity and economic development. The suggested approach to define an appropriate education model is 'training for impact' (Figure 1.2) in which strategies are designed to overcome the health workers shortages and fill the skills mix gaps. The education curricula of fit for purpose workers has to meet community health needs, including distributed and community-engaged learning approach. The health workforce has to be diverse regarding the gender and capable to work effectively in teams (Pálsdóttir et al, 2016).

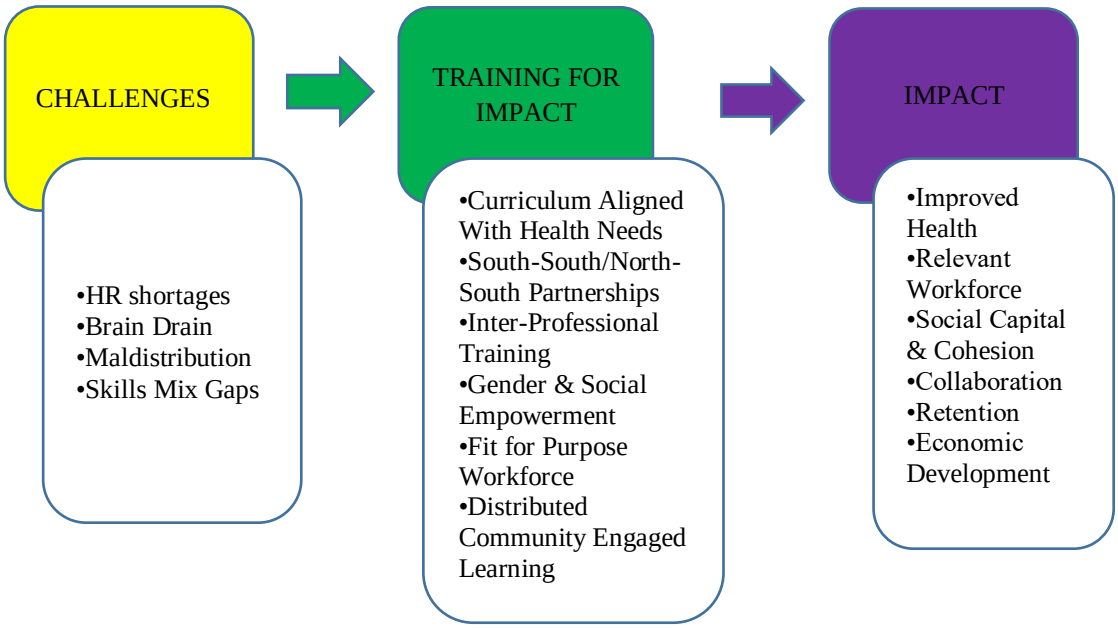

Figure 1.2: Training for impact

Adapted from: Pálsdóttir B, Barry J, Bruno, A, Barr H, Clithero A, Cobb N, et al. Training for impact: The socio-economic impact of a fit for purpose health workforce on communities. Hum Resour Health. 2016; 14: 49 (9 pages). doi.org/10.1186/s12960-016-0143-6

An important principle of this learning model is partnership and sharing. Sharing includes exchanging experiences and online sharing of modern teaching methods and programs between countries by using available technology and collecting outcomes on what is already done in order to define the minimum global standards for pharmacy support staff education. This will reduce the time for developing countries to update their own education system and still keep the appropriate standard of education (Marriott, 2018).[4]

Building on inter-professional collaboration within the pharmacy working team and with other healthcare professionals is identified as an essential strategy in education. Community commitment, presented as 'distributed community-engaged learning' plays an important role in scaling up of a pharmacy learning system, particularly in rural communities (Pálsdóttir et al, 2016).

1.6 Pharmacy support staff skills

Further role progress of community pharmacy practice in the health care system requires effective skills mix management of working staff, meaning that the responsibilities of the entire working team have to be in line with their skills (Boughen and Fenn, 2020). The pharmacy support staff has to be flexible to easily adapt to new working settings and motivated to learn continuously.[6]

Considering daily face-to-face contact with patients, pharmacy support staff should present high interpersonal communication skills and be trained on developing interpersonal communication skills (Oliveira de Melo et al, 2017). Particularly highlighted are patient-centered care communication skills required for effective

counseling of patients (Ilardo and Speciale, 2020). Developed communication skills should be aligned with the support staff ability to listen and to understand the patients' queries.[6] Working mostly under the pharmacists' supervision support staff must know how to collaborate as a part of the working team. Better collaboration will lessen the potential for errors by combining the knowledge, skills and expertise, and consequently results in increased patient confidence (Hindi et al, 2018).

Knowledge about currently available pharmacy healthcare services and the outcomes for the patient will transform patients from a passive to an active stakeholder in healthcare delivery.[4] The pharmacy technicians are engaged in the active promotion of health care services (Boughen et al, 2017). The pharmacy support staff has a positive role in building patient health literacy. By using simple language in advising and repeating suggested advice, if needed, pharmacy support staff can improve effective dialogue with patients. Additional training should be provided for support staff to tailor their health literacy about specific community needs, culture and mentality (Kairuz et al, 2015).[4] General pharmaceutical skills include the ability to analyse and interpret the problem to find a solution. The support staff skills should be evolved continuously through the years of their working experience starting from the ability to analyse routine situations, recognising priorities, to the ability to make concrete decisions to solve the more complex problems. [10]

[10] International Pharmaceutical Federation (FIP). FIP Global Advanced Development Framework [Internet]. The Hague: FIP; 2019 [cited 2020 May 23]. Available from: https://www.fip.org/file/4330

1.7 Evolvement of pharmacy support staff role

More autonomy has been entrusted to support staff, particularly to pharmacy technicians as a result of different efforts across countries to lessen pressure on pharmacists caused by expansion of the provided range of pharmacy services (Boughen et al, 2017). Pharmacy technicians have started to take on roles as 'pharmacist extenders' and a study conducted in the USA confirmed that they are able to perform 'non-traditional' tasks as safely and accurately as pharmacists (Taylor and Mehta, 2020). Even when pharmacy technicians are already certified by a technical pharmacy course, it is important that they are trained regarding communication skills and their ability to work as a part of team (Oliveira de Melo et al, 2017).

Dispensing of prescriptions and non-prescription products are widely recognised as basic roles of pharmacy support staff in community pharmacy. In order to improve patient adherence and reduce errors in the dispensing process, the pharmacy technicians can be gradually trained on drug dispensing. This new role should be supervised by pharmacists (Oliveira de Melo et al, 2017). More proactive customers in pharmacy and increasing the number of medicines available without prescriptions have resulted in more queries regarding self-care in community pharmacy (Sinopoulou et al, 2017). In order to increase the focus on self-care aspects, some community pharmacies in Great Britain have implemented a cold and flu training programme for the support staff to ensure a standardised level of professional assistance in dealing with this common minor ailment (Kam et al, 2019). In Denmark the pharmacy technicians are trained and allowed to deliver an Inhaler Technique Assessment service (El-Souri et al, 2020).

The practice scope of support staff has evolved from the ability to manage stock and supply medicines in the pharmacy (Taylor and Mehta, 2020; Boughen et al, 2017), to be involved in medicine reconciliation and medicine optimisation (Oliveira de Melo et al, 2017). Some technical duties of pharmacists, such as final-accuracy-check prescription has also been overtaken by trained pharmacy technicians in Great Britain (Boughen et al, 2020). Pharmacy technicians could also be trained on collecting necessary patient' data for making appointments and on collecting necessary data to obtain a patient's medical history (Taylor and Mehta, 2020). Immunization administration (Taylor and Mehta, 2020) and technician prescription validation known as 'tech-check-tech' (Frost and Adams, 2017) are new specialised tasks for trained pharmacy technicians, however the implementation of these new practice areas for pharmacy support staff is limited by the discrepancy in education and required training to conduct such tasks safely across countries (Burke, 2020).

Pharmacists and support staff confirmed that support staff is not trained as necessary and that training will be beneficial to both pharmacists and support staff. Some of the difficulties that hinder further progression in the training process of support staff include lack of appropriate support staff education, lack of standardised courses or courses provided as long distance, overloaded working day for support staff and lack of financial support (Smith and Watson, 2004).

The potential for changing and optimising pharmacy support staff supervision requirements has not been defined precisely and varies significantly across countries from the low-income countries with few pharmacists, where pharmacy support staff may work

independently all the time, through countries where support staff work under partial supervision of pharmacists to those where all professional activities are under the direct responsibility of a pharmacist at all time in most WHO European Region countries (Koehler and Brown, 2017b).

The benefit for the both pharmacy working team and the healthcare economy will be significant if certified and trained pharmacy support staff with the defined scope of responsibilities would be more engaged (Boughen et al, 2020). Expenditure in pharmacy technicians' roles should be followed concomitantly by establishing standardised requirements for the process of registration and licencing. This will increase pharmacists' confidence in technicians' abilities and enable regulatory bodies to supervise them (Taylor and Mehta, 2020). To-date results of small and limited studies indicate that pharmacy support staff trained for specific tasks have skills and ability to perform that tasks safely and accurately. However, there is public skepticism regarding the quality and safety for the patient if new practice activities are performed by pharmacy support staff despite reports of the contribution of trained pharmacy support staff to the patient care (Boughen et al, 2020).

1.8 Experiences from countries with a developed educational system for pharmacy support staff

An education model with strong regulation for the whole pharmacy working team, particularly support staff has been implemented in Great Britain. The General Pharmaceutical Council (GPhC) as the regulatory body for the pharmacy sector in Great Britain has established the requirements for each member of the community pharmacy working team regarding their education and training. The pharmacy workforce includes registered professionals, including the pharmacist, pharmacy technician and pharmacist independent prescriber and non-registered professionals, the pharmacy support staff. The registered professionals are responsible to the Council and have to meet professional standards set by the Council, while non-registered professionals are responsible to their employer. This does not diminish the responsibility of non-registered professionals considering that every employer has to meet required standards set by the Council for registered pharmacies. [11]

To become a qualified technician, a training course consisting of two years of placement of not less than 14 hours per week has to be completed under the direct supervision of a pharmacist. There are a variety of vocational courses providing face-to-face or online or a combination of both learning systems.[11] The entry requirements are presented as a minimum grade in four subjects considered as the most important, including mathematics, English language, science and one other subject. After completion of training, the pharmacy technician should be registered in GPhC (Boughen et al, 2017).[11]

[11]General Pharmaceutical Council. Pharmacy technician education and training [Internet]. London: General Pharmaceutical Council; 2020 [cited 2020 May 25]. Available from: https://www.pharmacyregulation.org/education/pharmacy-technician

Based on public and patients' opinion, the Council has updated education and training requirements for pharmacy support staff to ensure safe and professional pharmacy services. Pharmacy support staff must be employed in a pharmacy, either full or part-time, in order to present their knowledge and skills directly in practice during the vocational training. The minimum level of knowledge and capability that an employer can expect from the pharmacy support staff is defined as an appropriate level of two nationally certified educational programs, namely Regulated Qualifications Framework (RFQ), or Scottish Credit and Qualifications Framework (SCQF) or at a level accredited as equivalent. The particular principles for the accreditation of support staff training have also been set by the Council.[12]

The training course should be completed within three years. This training should equip pharmacy support staff with general knowledge and skills applicable to common roles in community pharmacy practice, including dispensing and supply of medicines and medical devices, counselling patients or assisting to other pharmacy professionals. Pharmacy owners have to identify all tasks related to the particular pharmacy role and all essential principles for the training of each pharmacy support staff necessary to carry out that role. By including these elements of training, the pharmacy support staff should be trained on specific roles in pharmacy which may entail enhancing technical skills. The pharmacy support staff' knowledge and skills have to be assessed to prove that they are trained effectively for the future role in pharmacy.[12]

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[12] General Pharmaceutical Council. GPhC requirements for the education and training of pharmacy support staff [Internet]. London: General Pharmaceutical Council; 2020 [cited 2020 May 24]. Available from:

https://www.pharmacyregulation.org/sites/default/files/document/gphc-requirements-for-the-education-and-training-of-pharmacy-support-staff-effective-october-2020.pdf

The organisation and delivery of pharmacy services in Danish community pharmacies is provided by pharmacists, pharmacy technicians 'pharmaconomists' (as they are called in Denmark), students after completing an on-the-job training in a pharmacy and the owner (Herborg et al, 2007). The largest group of staff consists of pharmacy technicians whose scope of work is broad and valuable (El-Souri et al, 2020) since dispensing prescription known as a 'sole pharmacist' task, has started to be shared between pharmacists and pharmacy technicians (Nørgaard and Sporrongg, 2019). All pharmacy technicians acquire their knowledge and skills at the Danish College of Pharmacy Practice (Pharmakon) by attending a three-year program (El-Souri et al, 2020) regulated by the Ministry of Education (Herborg et al, 2007).

Pharmacy technicians in Denmark have a crucial role in providing guidance to customers regarding prescriptions, medical and non-medical products (El-Souri et al, 2020). They are competent to check prescriptions, distribute medications, and provide advice (Herborg et al, 2007). In general, through counselling activities and the identification of drug-related problems (DRPs), pharmacy technicians in Danish community pharmacies make a significant contribution to patient safety (El-Souri et al, 2020). Hence, community pharmacy owners must ensure that pharmacy staff have basic education and continuing training in order to perform their duties adequately (Herborg et al, 2007).

Pharmacy support staff in Australia consists of pharmacy assistants, pharmacy technicians and advanced pharmacy technicians. Pharmacy assistants support pharmacists and technicians in performing pharmaceutical services through administrative and basic technical activities. They must acquire an adequate qualification

(Certificate III or IV in Community Pharmacy) or have corresponding training and experience. Pharmacy technicians support pharmacists by undertaking more demanding administrative, leadership and technical activities. To perform these activities, they must hold a Certificate III or IV in Hospital / Health Services Pharmacy Support or have corresponding training and experience.[13]

As a minimum qualification, an advanced pharmacy technician must hold a Certificate IV in Hospital / Health Services Pharmacy Support and complete a structured competency assessment to undertake additional practice activities.[13] While pharmacists must complete an accredited degree program followed by one year of supervised practice and mandatory registration, support staff are not required to hold a formal qualification or registration. However, the Pharmacy Board of Australia (PBA) recommends that all technicians who dispense medications and assistants should hold a qualification in accordance with the role they perform (Moles and Stehlik, 2015).

Pharmacy technicians and assistants provide significant support to pharmacists in carrying out core activities and thus contribute to better patient care and outcomes. The scope of work and activities that pharmacists may assign to support staff are defined by the PBA Guidelines for Dispensing of Medicines. In community pharmacies, support staff can dispense medications, provide some over-the-counter medications, and replenish supplies (Moles and Stehlik, 2015).

[13] The Society of Hospital Pharmacists of Australia (SHPA). Standard of Practice for Pharmacy Technicians to support Clinical Pharmacy Services [Internet]. 2019 [cited 2020 July 30]. Available from: https://www.shpa.org.au/sites/default/files/uploaded-content/website-content/SOP/Standard%20of%20Practice%20for%20Pharmacy%20Technicians%20to%20support%20Clinical%20Pharmacy%20Services%20-%20November%202019.pdf

The activities of support staff must be performed under the supervision of a registered pharmacist, and the scope of their duties depends on the qualifications, experience and training of the individuals.[13]

1.9 Aim of the study

This study aimed to describe current pharmacy support staff structures in community pharmacies in Malta and to identify education and training needs to ensure the ability of pharmacy support staff to complete required tasks safely and to the required standards.

Methodology

Chapter 2

2.1 Overview

The study methodology comprised two parts. The first part involved developing and validating a questionnaire for managing pharmacists, obtaining ethics approval, dissemination of the questionnaire and analysis of questionnaire responses. The second part of the study was oriented towards conducting a focus group discussion. It consisted of developing and validating the specific questions for focus group participants, obtaining ethics approval, conducting the session via Zoom application, recording and analysing the participants' responses (Figure 2.1).

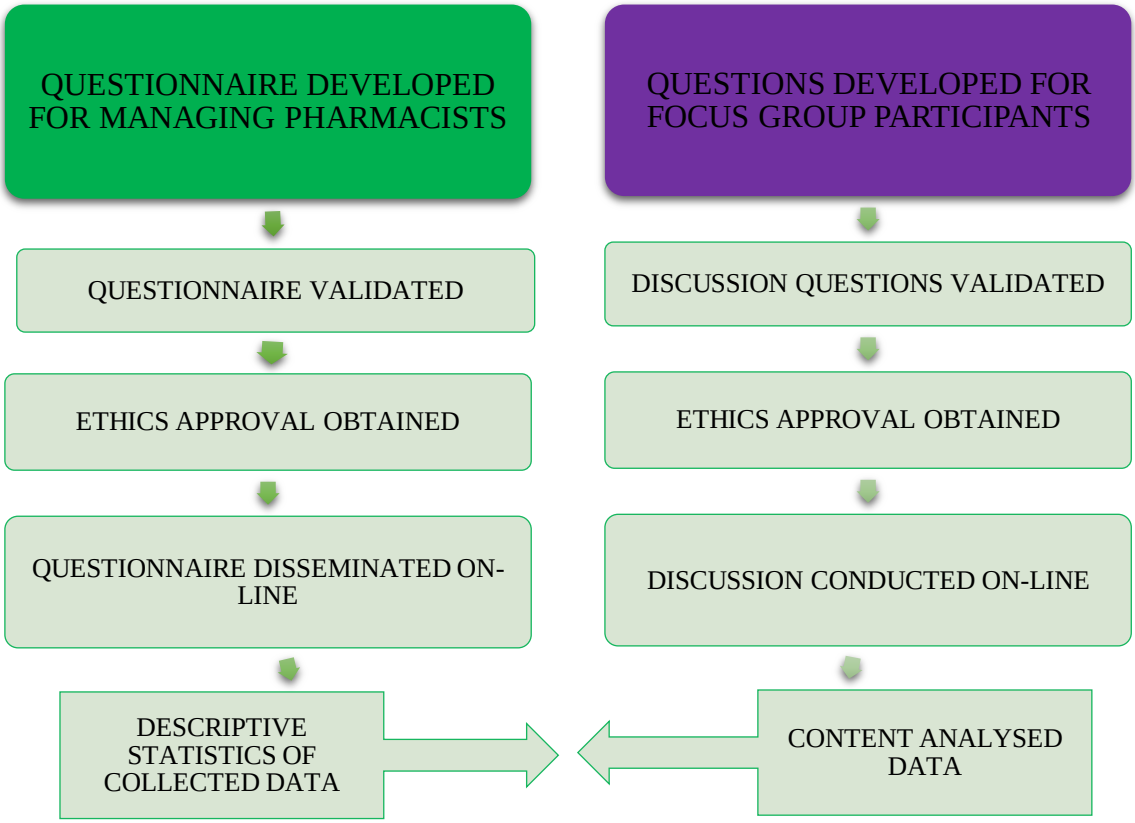


Figure 2.1: Methodology phases

2.2 Questionnaire for managing pharmacists

A self-administered questionnaire (Appendix 1) was developed for managing pharmacists working in an independent pharmacy or in a pharmacy which is part of a group. The questionnaire consists of 20 questions, 17 close-ended and 3 open-ended, designed to address four main topic areas:

1. Pharmacy support staff structure regarding their formal level of education and previous background in sciences (chemistry, physics, biology, mathematics, general science)
2. Important pharmacy support staff skills regarding their working scope
3. Health care services which may be safely performed by trained support staff under pharmacist supervision and how it will be reflected on customers
4. Educational and training needs for pharmacy support staff and suggested additional training from the perspective of managing pharmacists.

The managing pharmacists were asked for their opinion about the necessity of increasing requirements for formal qualification of pharmacy support staff through an adequate regulation and if so, how it will affect the recruitment process. The last two questions are focused on continuing education for the pharmacists. The managing pharmacists were asked for the number of continuing education activities they attended over the past 2 years and for their opinion about introducing continuing education for pharmacists as compulsory.

2.3 Focus group questions

Five open-ended questions for the focus group discussion were developed to cover the following topics: pharmacy support staff skills and background in science and technology which are considered as an asset for recruitment process, required duties and responsibilities of pharmacy support staff, suggested educational training and potential outcomes if pharmacy support staff received the compulsory training (Table 2.1).

Table 2.1: Focus group questions

1	What skills do you consider an asset when looking to recruit pharmacy support staff?
2	Do you consider a background in science and technology an asset for recruiting pharmacy support staff? Why?
3	What are the required duties and responsibilities of pharmacy support staff?
4	What type of educational training would you recommend, if any, for the support staff to follow, and why?
5	What would the potential outcomes be if pharmacy support staff received compulsory training? Indicate potential improvements and any negative aspects.

2.4 Validation of questionnaire and focus group questions

The questionnaire for managing pharmacists and the discussion questions for focus group participants were validated by a panel consisting of two managing pharmacists, two academic pharmacists and two laypersons. All members of the validation team were contacted via email. The panel did not suggest inclusion of new questions or elimination of questions from the questionnaire. The panel mostly provided comments about the layout of some questions and suggested re-structuring by including new additional aspects or modifying already written aspect. Through validation added categories in question number 3 were 'point-of-care testing' and 'behavioral and lifestyle adjustments' and in question number 8 'baby products'. In two questions the 'others' options' was added as additional category and in one question 'give a reason for your answer' was added. Some of recommendations were to make questions clearer and more precise for the participants regarding the choice of words used and their order in the questionnaire such as replacement of word 'advantage' with an 'asset'. The way of ranking the level of received professional help was changed from 'Importance scale' to number scale from 1 to 4. The suggestions were adopted and the questionnaire was improved accordingly.

2.5 Ethics approval

Before conducting the study, the required ethics approval was obtained from the Faculty of Medicine and Surgery Research Ethics Committee (FREC). Required documents, which included study proposal and protocol, the developed questionnaire for managing pharmacists and developed questions for focus group discussion together with application form were submitted. The application was considered as self-assessed by FREC and the researcher was informed about approval (Appendix 2).

2.6 Dissemination of questionnaire

The questionnaire was created in the online platform Google Forms and was disseminated online via the Facebook group 'Maltese Pharmacists and Pharmacy students' with instructions to be completed only by managing pharmacists. The respondents were instructed to indicate in the questionnaire whether s/he practices in a pharmacy which is part of a group or in an independent pharmacy. The responses were collected between April and July 2020.

2.7 Focus group discussion

A focus group discussion was held via Zoom application between 6 participants (2 male, 4 female); one pharmacist owner of a pharmacy group, one pharmacist owner of an independent pharmacy, one human resources personnel manager of a pharmacy group who is a pharmacist, one practicing community pharmacist and two patient representatives. The selection of focus group participants was made regarding their professions and current working position in order to obtain balanced opinion in the data collected. The participants were invited to participate in the discussion via an email.

The five open-questions were presented as a Power Point presentation with each question presented on a separate slide by using the 'sharing screen' option in Zoom application. At the start of the discussion, the participants were asked for their permission to record the discussion. All participants agreed and the discussion was recorded. The main points of each answer were documented in a Word document by two observers. The duration of the discussion was 1 hour.

2.8. Data analysis

Questionnaire responses were extracted from Google platform to Microsoft Excel® program where the responses were transformed into numbers, required for further analysis. SPSS® program version 26 was used to calculate descriptive statistics and cross tabulations with the Chi-Square statistic. The Chi-Square test is used to investigate the association between two categorical variables. In this study one of the variables is 'the group' including data collected from managing pharmacists working in independent pharmacy presented in results as 'Independent' and data collected from managing pharmacists working in a pharmacy which is part of a group presented as 'Group'. The other variable describes an aspect of need for additional education for pharmacy support staff. A p-value less than 0.05 was considered statistically significant.

Recorded data of the focus group discussion were analysed by using the content analysing method. This method provided the researcher with qualitative and quantitative information (Nyumba et al, 2018). By repeated listening to the recorded discussion, the data were organised into selected categories.

Chapter 3

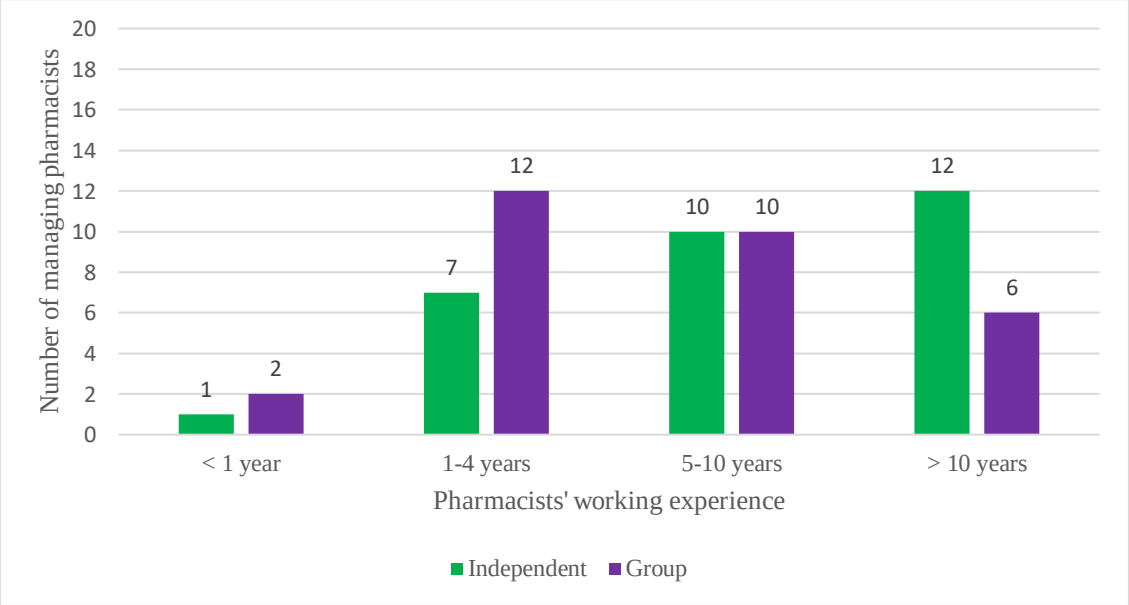
Results

3.1 Questionnaire responses

Sixty questionnaire responses were collected. The collected data was separated into two groups for comparison. Thirty responses were from managing pharmacists practicing in independent pharmacies which are presented in the results as 'Independent' and 30 responses were from managing pharmacists working in a pharmacy which is part of a group, presented in results as 'Group'.

3.1.1 Managing pharmacists' working activities

Most managing pharmacists (n=20) had been practicing in community pharmacy between 5 and 10 years. Most of the pharmacists practicing in an independent pharmacy (n=12) had more than 10 years of working experience while the same number of managing pharmacists from Group (n=12) had been working between 1 and 4 years in community pharmacy. There was no significant difference between groups ($p>0.05$) (Figure 3.1).



$X^2(2) = 3.649$, $p = 0.302$

Figure 3.1: Managing pharmacists' working experience (N=60)

The customers' requests on a daily basis in Independent pharmacies were mostly related to prescription medicines (n=22), followed by the queries about POYC prescriptions (n=18). The distribution of these requests on a daily basis was 30-50%. The customers' requests in pharmacies which are part of a group were similarly distributed between non-prescription, prescription, POYC medicines and toiletries. The majority of pharmacists from the Group (n=16) stated that 30-50% of daily customers' requests were related to both, non-prescription and POYC medicines (Table 3.1).

Table 3.1: Distribution of customers' requests on a daily basis (N=60)

Distribution of customers' daily requests	**Independent**	**Group**	**p-value**
Non -prescription medicines			0.428
>10%	0	1	
10-30%	9	5	
30-50%	**12**	**16**	
>50%	9	8	
Toiletries			0.444
>10%	6	7	
10-30%	**17**	**13**	
30-50%	7	8	
>50%	0	2	
Prescription medicines			0.069
>10%	0	0	
10-30%	5	13	
30-50%	**22**	**14**	
>50%	3	3	
POYC prescriptions			0.831
>10%	1	2	
10-30%	5	7	
30-50%	**18**	**16**	
>50%	6	5	

When asked to rank the dedicated time towards different types of working activities, by using a number scale 1 (least time) to 4 (most time), most of managing pharmacists from both groups, Independent (n=14) and Group (n=18) marked counseling patients about minor ailments. This was followed by dispensing and counseling about medicines prescribed by the doctor by 17 pharmacists from the Group while 12 pharmacists from Independent pharmacy marked this activity as the most time consuming.

Point-of-care testing (urine, blood glucose, blood pressure, pregnancy testing) was recognised by pharmacists in both groups as activities to which the least time was dedicated (‘1’) (Table 3.2).

Table 3.2: Distribution of pharmacists' working time towards different activities (N=60)

Ranking of the time dedicated by pharmacist towards:	Independent	Group	p-value
Counselling about minor ailments			0.765
1 (least time)	1	1	
2	6	4	
3	**14**	**18**	
4 (most time)	9	7	
Behavioural and lifestyle adjustments			0.389
1 (least time)	4	5	
2	9	11	
3	**12**	**13**	
4 (most time)	5	1	
Dispensing and counselling about prescribed medicines by doctor			0.416
1 (least time)	0	0	
2	6	5	
3	**12**	**17**	
4 (most time)	12	8	
Dispensing and counselling about POYC medicines			0.407
1 (least time)	3	8	
2	9	7	
3	**11**	**10**	
4 (most time)	7	5	
Point-of-care testing			0.838
1 (least time)	**11**	**11**	
2	**10**	**12**	
3	5	5	
4 (most time)	4	2	
Administrative activities			0.684
1 (least time)	4	2	
2	7	10	
3	**10**	**11**	
4 (most time)	9	7	
Counselling about other matters			0.190
1 (least time)	6	6	
2	**8**	**13**	
3	10	10	
4 (most time)	6	1	

3.1.2 Pharmacy support staff structure

The pharmacy support staff structure consisted predominantly of salespersons in both groups, Independent (n=26) and Group (n=27), followed by students from the Pharmacy Department who were carrying out a placement in 13 Independent pharmacies and 14 pharmacies which are the part of a group. There was no significant difference between groups ($p>0.05$) (Table 3.3).

Table 3.3: Pharmacy support staff structure (N=60)

Support staff	Independent	Group
Salesperson	**26 (86.7%)**	**27 (90%)**
Trainee	13 (43.3%)	14 (46.67%)
Pharmacy technician	6 (20%)	7 (23.33%)
Pharmaceutical technologist	1 (3.30%)	2 (6.67%)

$X^2(4) = 2.517$, $p = 0.642$

When asked to describe pharmacy support staff structure regarding the number of staff and their type of employment, the managing pharmacists from 23 Independent pharmacies and 19 from Group pharmacies specified that full-time salespersons composed the largest part of the support team. Part-time salesperson participated in 12 of Independent and 11 Group pharmacy support staff (Table 3.4).

Table 3.4: Pharmacy support staff structure regarding the type of employment (N=60)

Support staff structure	Independent	Group
Full-time salesperson	**23**	**19**
Part-time salesperson	12	11
Trainee	7	6
Pharmacy technician	3	4
Pharmaceutical technologist	1	4

$X^2(5) = 3.720$, $p = 0.590$

3.1.3 Pharmacy support staff education

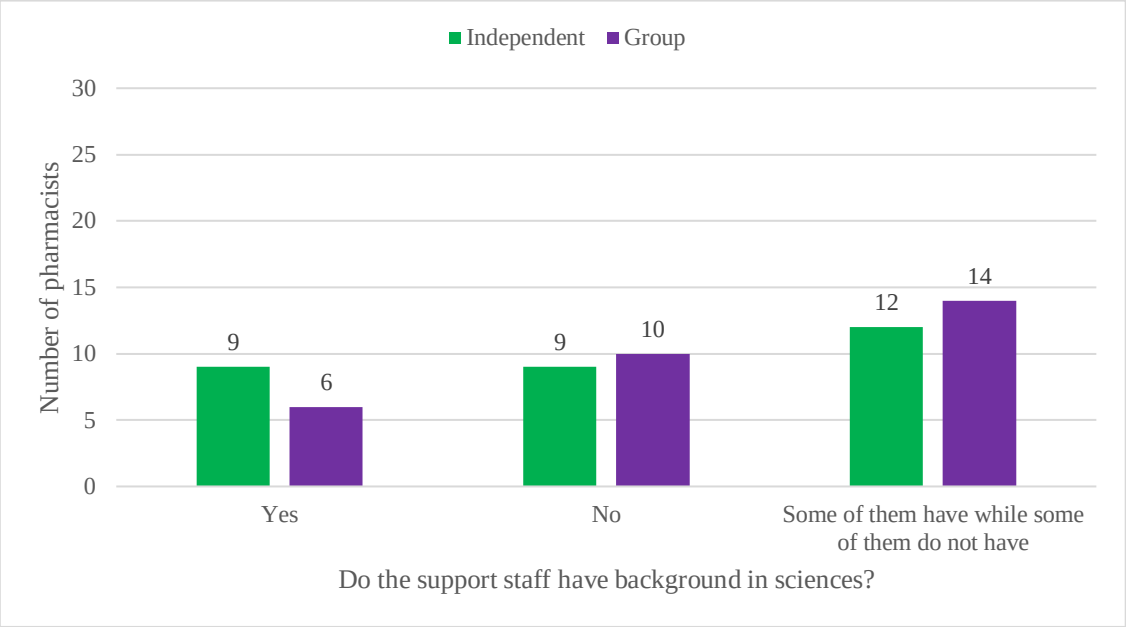
Regarding the educational level of pharmacy support staff they are working with, more than a half of the respondents from both groups, Independent (n=17) and Group (n=16) confirmed secondary level as the highest (Table 3.5).

Table 3.5: Pharmacy support staff education (N=60)

Educational level	Independent	Group
Secondary	**17 (56.7%)**	**16 (53.3%)**
Tertiary level (Diploma)	12 (40%)	9 (30%)
Tertiary level (Degree)	8 (26.7%)	11 (36.7%)
Primary	2 (6.7%)	3 (10%)

$X^2(3)=1.133$, $p=0.769$

When asked if the pharmacy support staff, they are working with, have background in sciences (chemistry, physics, biology, mathematics, general science) the managing pharmacists from both groups answered very similarly. Most respondents in both groups, Independent (n=12) and Group (n=14), stated that some of the support staff have a background in science, while some do not (Figure 3.2).



$X^0(2) = 0.806$, $p = 0.668$

Figure 3.2: Do the support staff have background in science? (N=60)

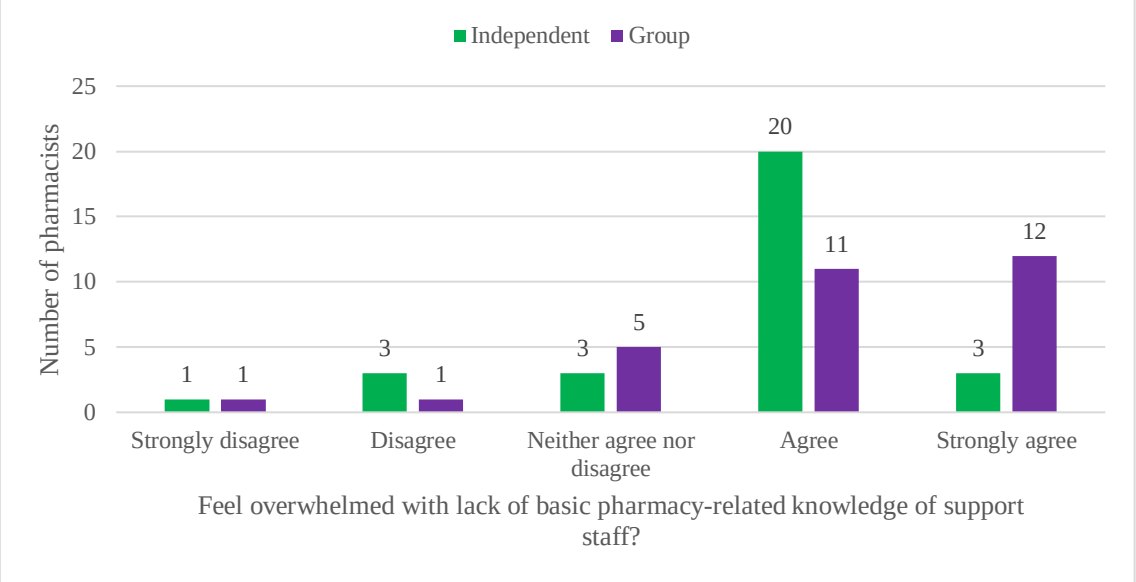
Regarding prior knowledge of pharmacy support staff on different topics related to frequent customers' queries, the majority of managing pharmacists from both groups, Independent (n=19) and Group (n=18), considered familiarity with dermato-cosmetics as 'Very important'. Most of respondents from Independent pharmacies (n=18) agreed that the knowledge about minor aliments is 'Important' while the majority of pharmacists from Group (n=16) stated knowledge about baby products as 'Important'.

Nutrition, smoking cessation and elderly care were recognised by similar number of pharmacists from both groups as 'Important' topics. Ten pharmacists from Independent group stated knowledge about smoking cessation as 'Neither important nor unimportant' while the same number of participants from Group (n=10) considered knowledge about nutrition and elderly care as 'Neither important nor unimportant' (Table 3.6).

Table 3.6: Importance of having prior knowledge on common topics in pharmacy (N=60)

Rating the prior knowledge of support staff on:	Pharmacy	Not at all important	Not important	Neither important nor unimportant	Important	Very important	p-value
Minor aliments	Independent	1	2	3	18	6	0.602
	Group	2	2	7	13	6	
Non-prescription medicines	Independent	2	1	6	16	5	0.770
	Group	2	0	5	15	8	
Dermato-cosmetics	Independent	0	0	0	11	19	0.116
	Group	1	0	4	7	18	
Dental care	Independent	0	2	4	14	10	0.438
	Group	2	1	6	15	6	
Nutrition	Independent	1	0	6	12	11	0.178
	Group	1	3	10	11	5	
Smoking cessation	Independent	1	2	10	12	5	0.742
	Group	1	5	7	13	4	
Baby products	Independent	0	0	4	14	12	0.148
	Group	1	0	8	16	5	
Elderly care	Independent	0	3	7	11	9	0.050
	Group	4	0	10	12	4	

When asked if the lack of basic pharmacy-related knowledge of pharmacy support staff could make the pharmacists feel overwhelmed, the majority of respondents (n=32) from both groups confirmed that they 'Agree'. While most of pharmacists from independent pharmacies (n=20) marked 'Agree', most (n=12) managing pharmacists from pharmacies which are part of a group marked 'Strongly agree'. This difference was statistically significant ($p<0.05$) (Figure 3.3).



$X^6(4) = 9.513$ $p = 0.049$

Figure 3.3: Do pharmacists feel overwhelmed due to lack of support staff basic pharmacy-related knowledge? (N=60)

3.1.4 Pharmacy support staff skills

Asked to rate the skills that the pharmacy support staff should have by categorising them from ‘Not at all important’ to ‘Very important’ the different opinion between the pharmacists from both groups was noticed.

Almost all pharmacists working in Independent pharmacy (n=27) stated verbal and written communication skills as ‘Very important’, followed 26 who highlighted accuracy, ability to prioritise and customer-focused skills.

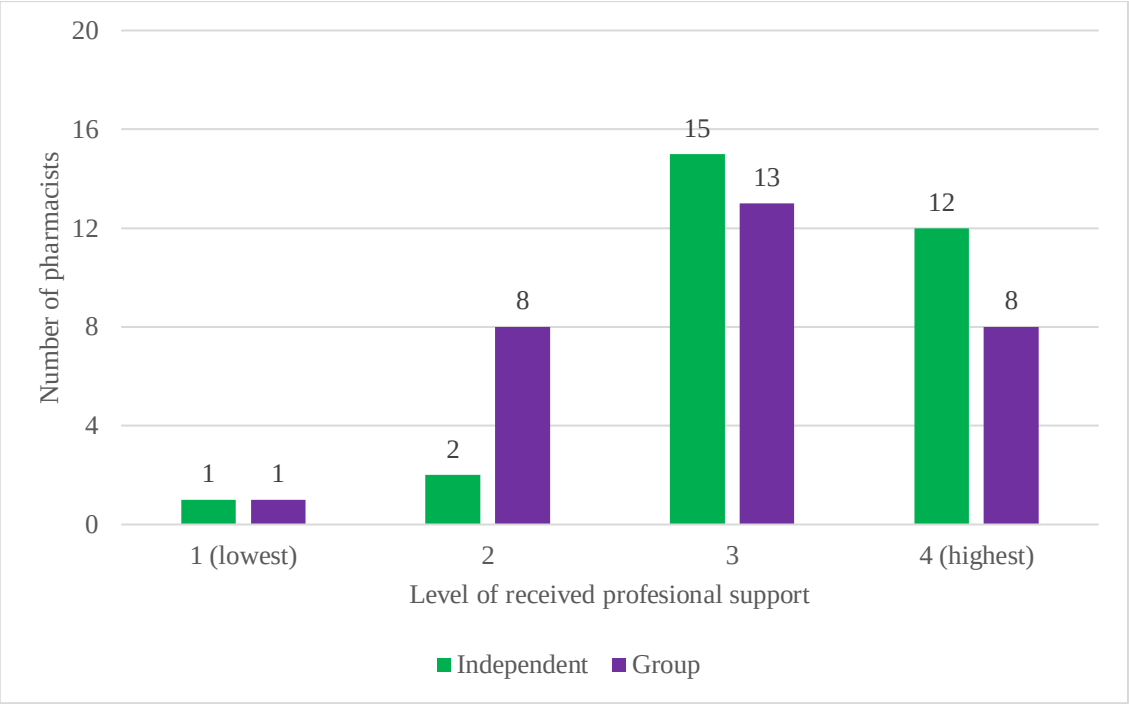
For the majority of pharmacists working in pharmacies which are part of a group the motivation to learn was a ‘Very important’ skill (n=25), followed by customer-focused skills and enthusiasm (n=22) (Table 3.7).

There was statistically significant difference ($p<0.05$) between the two analised groups regarding the ranking the importance of support staff communication skills and ability to prioritise.

Table 3.7: Skills that pharmacy support staff should have (N=60)

Rating of support staff skills	Pharmacists working in pharmacy which is:	Not at all important	Not important	Neither important non unimportant	Important	Very important	p-value
Communication skills	Independent	0	0	0	3	27	**0.013**
	Group	0	1	0	12	17	
Motivation to learn	Independent	0	0	1	6	23	0.478
	Group	0	1	0	4	25	
Customer focused	Independent	0	0	1	3	26	0.269
	Group	0	1	0	7	22	
Accuracy	Independent	0	0	0	4	26	0.057
	Group	0	1	0	11	18	
Ability to prioritise	Independent	0	0	1	3	26	**0.008**
	Group	0	1	1	14	14	
Ability to multitask	Independent	0	0	1	6	23	0.468
	Group	0	1	2	9	18	
Enthusiasm	Independent	0	0	1	4	25	0.661
	Group	0	1	1	6	22	
An analytical mind	Independent	0	2	5	13	10	0.421
	Group	1	0	3	13	13	
Computer literacy	Independent	0	0	2	11	17	0.323
	Group	0	1	0	14	15	
Mathematical skills	Independent	0	3	10	9	8	0.145
	Group	2	1	9	15	3	

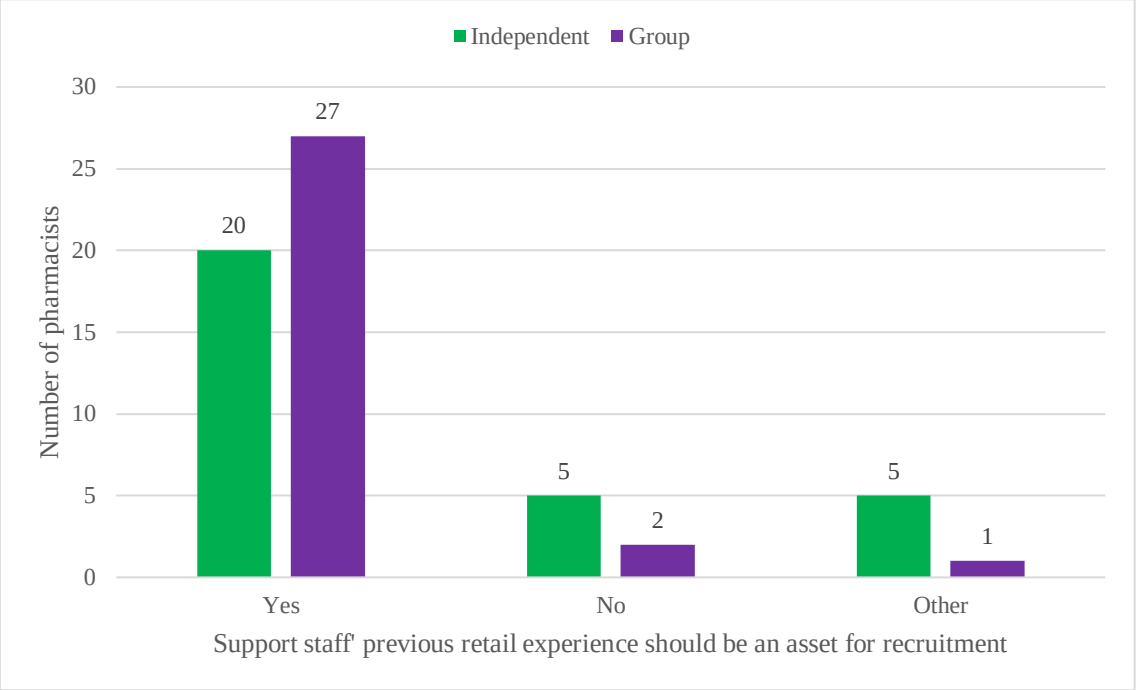
Using a number scale from 1 (lowest) to 4 (highest), the respondents from both groups ranked the level of professional help received from the pharmacy support staff they are working with. Twelve pharmacists working in Independent pharmacy ranked the support received from the staff they are working with as 'highest' including as additional comments that they are very well trained on the job and experienced (Figure 3.4).



$X^2(3) = 4.543$ p = 0.208

Figure 3.4: Ranked level of professional support received from pharmacy support staff (N=60)

Previous retail experience, even not from community pharmacy, should be considered as an asset for recruiting pharmacy support staff in the opinion both of analysed groups, Independent (n=20) and Group (n=27) (Figure 3.5).



$X^4(2) = 4.995$ p = 0.082

Figure 3. 5: Is previous retail experience an asset for recruiting pharmacy support staff? (N=60)

3.1.5 Health care services

The majority of the managing pharmacists from both groups confirmed that pharmacy support staff could be trained to perform various healthcare services provided in community pharmacy safely and under the pharmacists' supervision. Drug waste management was recognised as a service which can be provided by trained support staff by almost all of the respondents from Group (n=28) and slightly less in those working in Independent (n=23) pharmacies. This is followed by monitoring blood pressure and dispensing POYC medicines. Reconstituting of medicines was the service supported by the least number of pharmacists from both groups, Independent (n=13) and Group (n=16). Pharmacists from Group pharmacies presented more trust in trained pharmacy support staff regarding their performance in all listed health care services in community pharmacy. (Table 3.8).

Table 3.8: Health care services the pharmacy support staff may be trained on (N=60)

Health care services	Independent	Group
Drug waste management	**23 (82.1%)**	**28 (93.3%)**
Monitoring blood pressure	21 (75%)	18 (60%)
Dispensing medicines through POYC scheme	18 (64.3%)	20 (66.7%)
Pregnancy testing	14 (50%)	21 (70%)
Monitoring blood glucose	16 (57.1%)	17 (56.7%)
Monitoring BMI	16 (57.1%)	17 (56.7%)
Urine testing	13 (46.4%)	18 (60%)
Reconstituting of medicines	11 (39.3%)	16 (53.3%)

$X^2(7) = 2.190$ $p = 0.949$

Additional educational training for support staff was considered by the majority (n=24) of pharmacists in both groups as valuable to provide a consistent level of service to the patient (Table 3.9).

Table 3.9: Potential outcomes of providing additional educational training (N=60)

Outcomes	Independent	Group
Providing a consistent level of service to the patient	**24 (80%)**	**24 (80%)**
Providing higher quality service to the patient	19 (63.3%)	24 (80%)
Freeing up the time to dedicate for clinical tasks	22 (73.3%)	21 (70%)
Increase in patient satisfaction	20 (66.7%)	23 (76.7%)
Decrease incidence of errors	19 (63.3%)	21 (70%)
Increase in patient confidence	15 (50%)	17 (56.7%)
No improvement to pharmacy service	0	1 (3.3%)

$X^2(6) = 1.466$ $p = 0.962$

3.1.6 Educational training

When asked to recommend the educational training which should be followed by pharmacy support staff, the majority of managing pharmacists working in pharmacy which is part of a group were not specific suggesting 'basic pharmacy-related' training, followed by 'training on-job in pharmacy by pharmacists' and 'patient-care training'. The managing pharmacists from independent pharmacies were more specific by defining particular fields which the support staff should be engaged in including 'training on OTC products', followed by 'patient-care training', 'skin-care training', 'nutrition and supplement training' and 'basic pharmacy-related training' (Table 3.10).

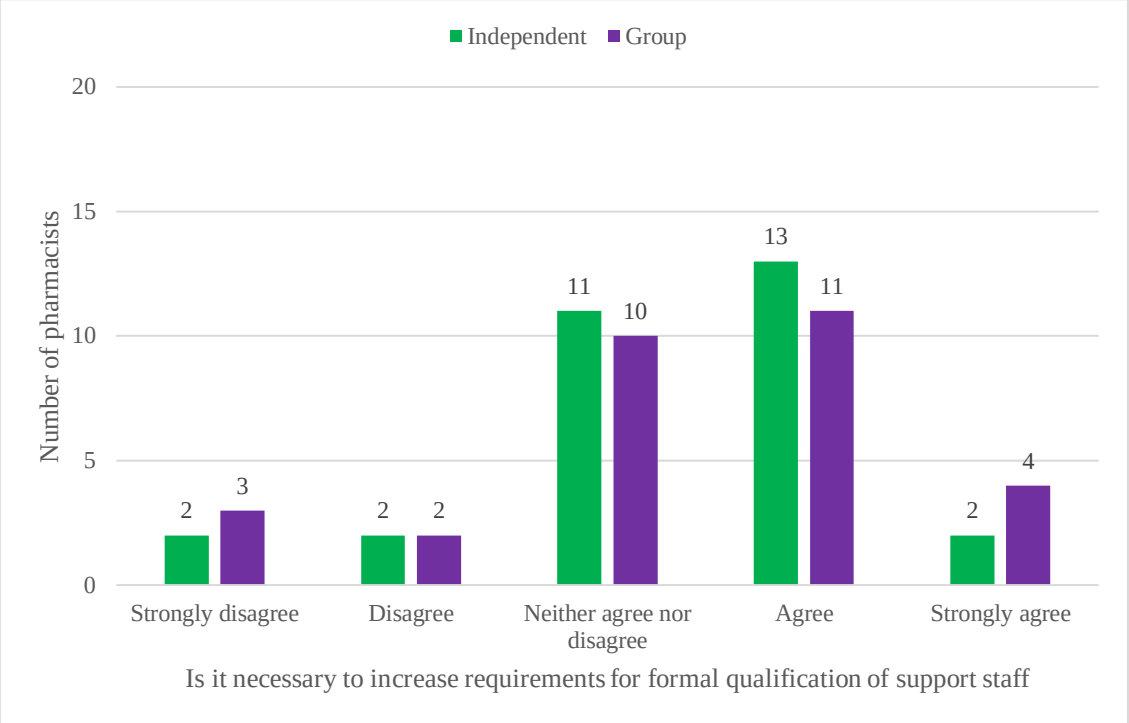
Table 3.10: Suggested educational training for pharmacy support staff (N=60)

Recommended educational trainings for pharmacy support staff	Independent	Group
Training on OTC products	6	3
Patient-care or customer-care training	5	4
Basic pharmacy-related training	4	5
Skin-care training	4	3
Nutrition & supplement training	4	3
Training on performing simple health care services	3	0
POYC handling training	1	3
Training on-job in pharmacy by pharmacists	3	4
Basic dispensing training	3	0
Basic classification of medicines as OTC/POM/DDA	1	2
Basic training for the computer work	1	2

$X^2(10) = 8.833$, $p = 0.548$

3.1.7 Formal education requirements

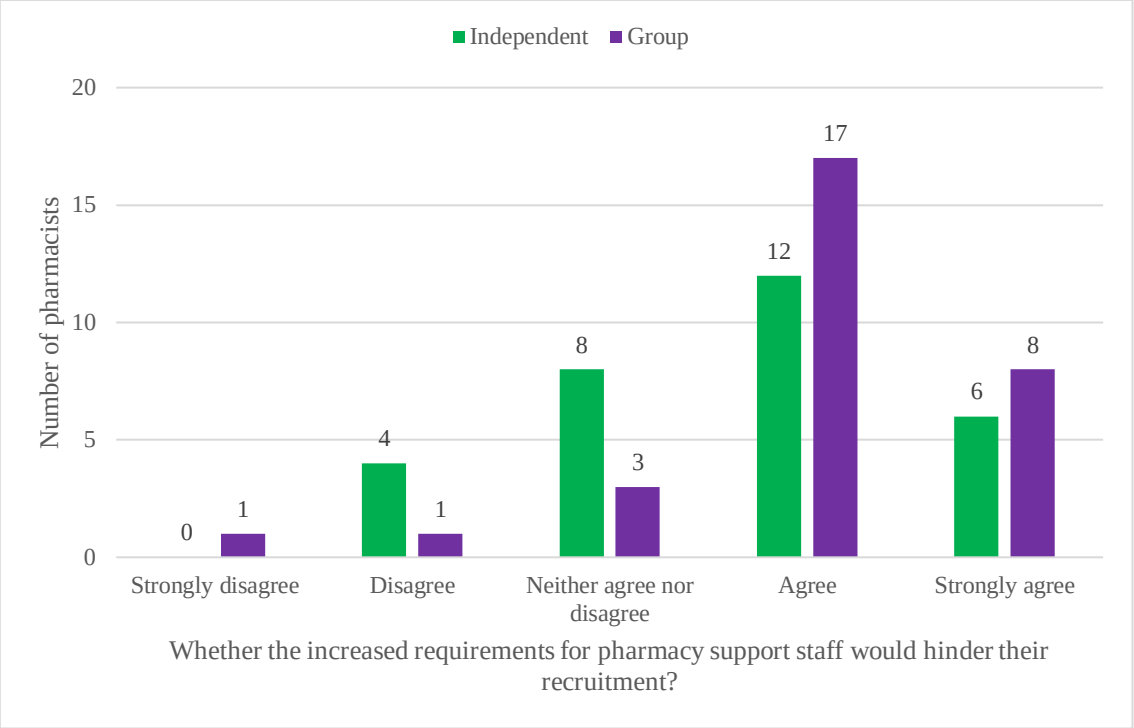
Most respondents from both groups, Independent (n=13) and Group (n=11), marked 'Agree' when asked whether it is necessary to increase requirements for formal qualification of support staff (Figure 3.6).



$X^6(4) = 1.081$ $p = 0.897$

Figure 3.6: Is it necessary to increase requirements for formal qualification of support staff? (N=60)

Most of the pharmacists from both groups, Group (n=17) and Independent (n=12), 'Agreed' that increased requirements for pharmacy support staff and regulation in this field would hinder the support staff' recruitment process (Figure 3.7).

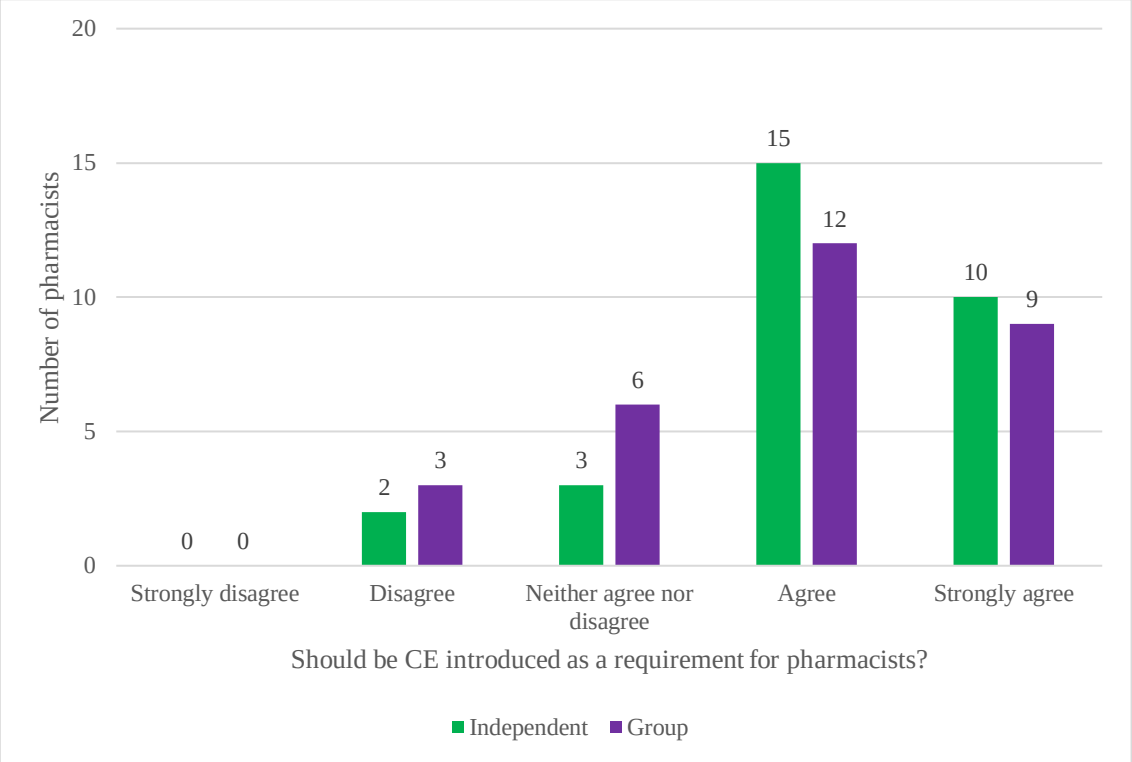


$X^4(4) = 6.221$ $p = 0.183$

Figure 3.7: Would increased requirements for pharmacy support staff and regulation hinder the recruitment process? (N=60)

3.1.8 Continuing education

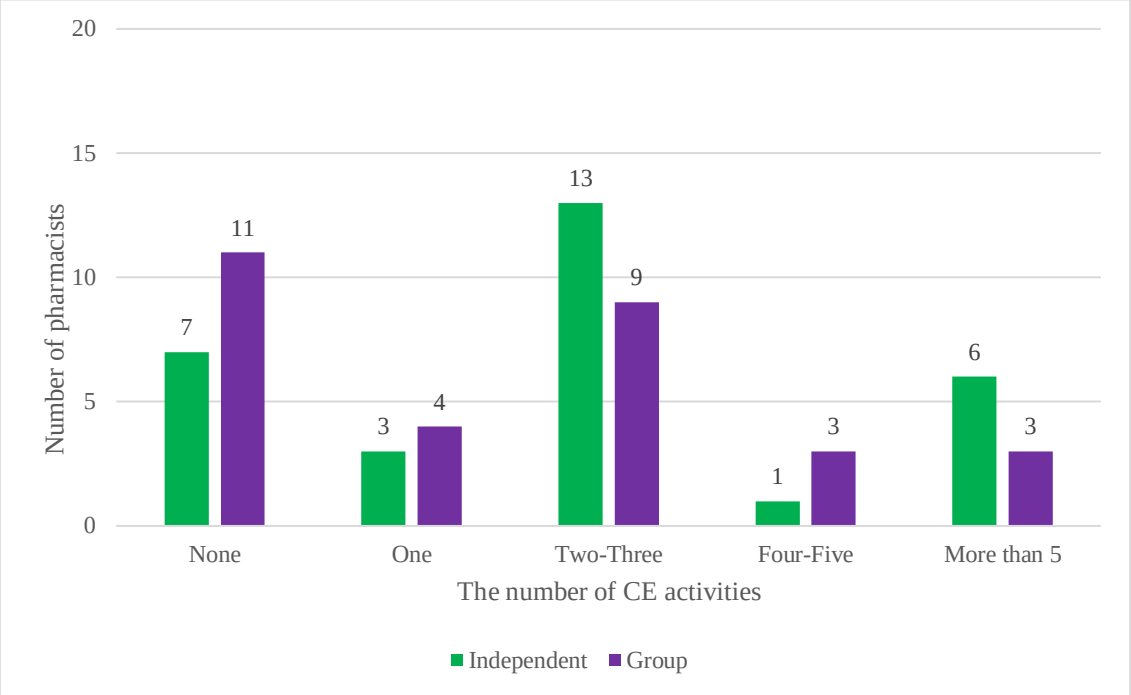
Fifteen managing pharmacists working in independent and 12 from Group marked 'Agree' when asked if continuing education (CE) should be introduced as a requirement for pharmacists (Figure 3.8).



$X^4(3) = 1.586$ $p = 0.663$

Figure 3.8: Pharmacists' opinion about introducing continuing education as a requirement for pharmacists (N=60)

Regarding the continuing education activities which had been organised over the past 1-2 years, most managing pharmacists working in independent pharmacy (n=13) confirmed their attendance to 2 or 3 of those activities, while most pharmacists working in pharmacy which is part of a group (n=11) did not attend to any program (Figure 3.9).



$X^6(4) = 3.759$ $p = 0.440$

Figure 3.9: Number of continuing education activities attended by pharmacists over the past 1-2 years (N=60)

3.2 Results from focus group discussion

3.2.1 Skills as an asset for recruitment

When asked about skills which are considered as an asset during the recruitment process of pharmacy support staff most of participants (n=5) agreed that communication skills are the most important skills (Table 3.11).

Table 3.11: Pharmacy support staff skills considered important (N=6)

Skills	Pharmacist HR manager	Pharmacist Independent owner	Pharmacist Group owner	Community Pharmacist	Layperson 1	Layperson 2
Communication skills	√	√		√	√	√
Appearance	√	√	√	√	√	
Motivation to learn	√	√				
Multilingual knowledge	√	√	√			
Ability to work in team	√	√		√		
Knowledgeable person			√	√	√	√
People person	√					

3.2.2 Background in science

When asked whether they consider background in science as asset for recruitment process all participants answered 'Yes' and the main points of their comments are presented in a Table 3.12.

Table 3.12: Background in science and technology an asset in recruitment process of pharmacy support staff (N=6)

Participants	Background in science as an asset	Background in technology as an asset	Why? (reasons and main points)
Pharmacist HR manager	Yes	Yes	"Help would be needed in dispensary area but in other areas also an all-rounder is preferred. This background whilst appealing and does help, it is not everything."
Pharmacist Independent owner	Yes	Yes	"Support staff have to know their limits, up to what extent they can help customer and when to refer patient to the pharmacist even if they have scientific knowledge."
Pharmacist Group owner	Yes		"If support staff has to deal with just technical work like placing orders there is no need for prior knowledge, the in-house training on job will be enough. For assisting in dispensary prefer to employ qualified person such as a Pharmacy Technician."
Community Pharmacist	Yes	Yes	"Knowledge about technology would help dealing with POYC, sending emails and to find information regarding patient queries."
Layperson 1	Yes	Yes	"Background in science and technology will allow less time for support staff to fit in the pharmacy work team. Also, they have to know limits so the patient will not be confused who is the pharmacist."
Layperson 2	Yes	Yes	"Support staff has to know about what they are selling and also their role limits."

3.2.3 Required duties and responsibilities of pharmacy support staff

When asked to comment on required duties and responsibilities of pharmacy support staff the technical tasks were most mentioned such as taking care of expiries and stock management followed by greeting customer and skin care requests (Table 3.13).

Table 3.13: Required duties and responsibilities of pharmacy support staff (N=6)

Duties and responsibilities	Pharmacist HR manager	Pharmacist Independent owner	Pharmacist Group owner	Community Pharmacist	Layperson 1	Layperson 2
Expiry date monitoring		Yes	Yes	Yes	Yes	
To greet the customer			Yes		Yes	Yes
Stock management		Yes	Yes	Yes		
Dermato-cosmetics	Yes	Yes		Yes		
Pricing		Yes	Yes			
Dealing with basic over-the-counter queries	Yes					
Assisting pharmacist in dispensary area	Yes			Yes		
Performing point-of-care testing				Yes		
Answering the phone		Yes				
Clearing up the pharmacy		Yes				

3.2.4 Recommended educational training for pharmacy support staff

The focus group participants suggested a practical training for support staff on similar topics namely OTC medicines, make-up and self-care while indicating some of topic areas for learning curricula presented in Table 3.14.

Table 3.14: Recommended educational trainings for pharmacy support staff (N=6)

Participants	Recommended educational training
Pharmacist HR manager	Practical trainings in advance training on basic over- the-counter medicines, about POYC system (how it works, the required documentation and legislation), the difference between prescription and non-prescription medicines, dispensing process. The suggested is practical training in community pharmacy done by pharmacist to enable support staff to truly assist the pharmacist.
Pharmacist Independent owner	The areas where training might be done, to provide basic knowledge about, are: self-care, skin care, make-up techniques, basic nutritional requirements and food supplements. Person with decent level of education can handle well, if trained, also weight management, queries about small injuries, minor ailments. Initiation with patient can be easily done by support staff and then the final advice by pharmacist. Support staff can also attend seminars, organised by distributors or products agents, on various topics.
Pharmacist Group owner	Pharmacy support staff would be expected to have an 'O' Level standard of education, a basic knowledge in operating a PC and also to understand how to use both Word and Excel. In-house training is usually provided if individuals would now know how to use both Word and Excel.
Community Pharmacist	Preferably Pharmacy Technician/Pharmaceutical Technology course or training by Malta College of Arts, Science & Technology (MCAST) in Malta.
Layperson 1	Mixture of theory and practice, the training should be in line with everyday changes to meet current and specific community needs.
Layperson 2	It should be an ongoing training organised by Chamber of Pharmacists because they are able to give the basic training to staff who are helping out pharmacists. The training should not be long and it should be given by people who are already in that line of work, so the best option would be training given by pharmacists because they know best what help they would need in the pharmacy.

3.5 Potential outcomes and negative aspects of compulsory training for pharmacy support staff

The focus group participants agreed that the compulsory training for support staff would increase in professionalism (n=4). On the other hand, there is risk that by making training compulsory since the support staff may not remain working in community pharmacy just because of the training (n=2) which will enhanced the recruitment problem (Table 3.15).

Table 3.15: Potential outcomes and negative aspects if pharmacy support staff received compulsory training (N=6)

Participants	Potential outcomes of compulsory training	Negative aspects of compulsory training
Pharmacist HR manager	Major advantage of adopting UK model will liberate the pharmacists to take on higher roles, which will enhance the profession focusing on services which we do not offer in Malta. Having accredited and fully qualified staff will ultimately benefit the community.	They would expect higher salary, but the salary would be justified also by value of activities they would be able to do.
Pharmacist Independent owner	This will increase the professionalism providing better pharmacy service and the support staff should be adequately remunerated for doing this training.	The problem is to make them compulsory because there is already lack of staff and some people knowing that the training is compulsory will just turn away. The problem with support staff' recruitment will be more enhanced.
Pharmacist Group owner	Compulsory training would ensure a certain standard for pharmacy support staff.	This would be a good idea but one has to keep in mind that those individuals who would not have this training, and already hold a job, would not be discriminated against.

Participants	Potential outcomes of received compulsory training	Negative aspects of received compulsory training
Community Pharmacist	Everything positive, less time to fit in pharmacy, more time to adjust to requirements of managing pharmacist. Increase in professionalism.	Higher salary and this training should be done by pharmacists that would increase pharmacists' workload so there is need to balance those things.
Layperson 1	If the salary is good, if the conditions are good, if the state is supportive, I support compulsory training.	Do not see anything negative, the more the person knows it is better.
Layperson 2	Compulsory training before starting job will give the person incentive to remain there working by having certain feedback and might be more recognised.	Support staff can feel pressurised by doing compulsory training so they might not continue job. They will not do the job just simply because of training that they have to do.

Chapter 4

Discussion

4. 1 Pharmacy support staff structure

The results of this study indicate that in the opinion of both the managing pharmacists and the focus group participants, there is a potential for greater utilisation of pharmacy support staff in community pharmacy in Malta to provide a more efficient primary health care system.

Identification of pharmacy support staff structure, their roles and responsibilities will facilitate development of the health care system and ensure better deployment of available human resources to meet health needs across the country (Koehler and Brown, 2017b). The current pharmacy support staff structure in Malta is specific considering the presence of each support staff category. It includes mostly salespersons (n=53), followed by students from the Pharmacy Department, pharmacy technicians and pharmaceutical technologists. While the pharmacy technicians are the largest part of pharmacy support cadres in majority of European countries (Martins et al, 2015) in Malta they are valuable cadres but less present (n=13). The education, practice scope and responsibilities are clearly determined by the Health Care Professions Act, 2003 and Pharmacy Council and this is recognised from most of managing pharmacists and persons who recruit support staff as an asset. There is still an open question as to why more people in Malta are not attracted by this profession, but this question is not evaluated through the study.

Community pharmacists in Malta have to rely on salespersons' assistance, also called pharmacy assistants who are the largest support staff category assisting in almost all (n=53) independent and pharmacies which are the part of a group. Like in Malta, the pharmacy assistants take part in support staff structure in many European countries as UK

(apart from Northern Ireland), the Netherlands, all Scandinavian countries, Spain, Sweden and Switzerland (Martins et al, 2015). However, it is difficult to compare their practice scope and formal education since it varies across countries (Koehler and Brown, 2017b). Despite the lack of more detailed regulation for the pharmacy support staff called 'salespersons' there is a strict framework for all support staff activities in community pharmacy in Malta. Similarly, with most of the WHO European Region countries, all professional activities in pharmacy are under the direct responsibility of a pharmacist (Koehler and Brown, 2017b). Most of the study participants stated frequently that 'the support staff in the pharmacy has to know their role limits and up to what extent they can proceed in approaching the customers'. Related to what is mentioned, the support staff background in science and technology is recognised as asset, but the ability to know when to refer patient to the pharmacists is highlighted as crucial.

4.2 Pharmacy support staff skills

The effective skills mix management of all working staff in pharmacy is necessary to ensure that further progress in community pharmacy services can be followed (Boughen and Fenn, 2020). Based on given opinions towards expected support staff skills, the core set of skills include communication skills, motivation to learn, accuracy, ability to prioritise and customer-focused skills. Pharmacists practicing in independent pharmacies emphasised communication skills as most essential, while the pharmacists practicing in pharmacy which is part of a group would mostly appreciate the staff being motivated to learn. It may be that the small organisational differences between independent pharmacies and pharmacies which are part of a group, as well differences in pharmacists' previous working experience with support staff, affected their choice of expected support staff

skills. Communication skills are also considered as very important in the opinion of participants in the focus group, most of whom are directly involved in recruiting pharmacy support staff, while they also emphasised the appearance, particularly a trustable and tidy look, as necessary for better approaching customer. The importance of communication skills is confirmed through other studies, where errors in communication between pharmacy working team itself and with patients may predispose to further errors such as with respect to patient adherence to therapy. Support staff should have and be trained on developing strong interpersonal communication skills (Oliveira de Melo et al, 2017) from the beginning their practice (Boughen et al, 2017). Related to this, conflict management and negotiation skills are mentioned as an important sub-type of communication skills and are suggested as a part of curricula for pharmacy technicians in Canada (Jetha et al, 2020).

According to this study the most valuable support staff skills are inter-personal, like motivation to learn, interest in working in the field, nice personality together with certain quality of communication which are the basis of patient-centered care.

4.3 Educational training for pharmacy support staff

Following the expanding role of community pharmacy in Malta, additional educational training for support staff to ensure their working competence for new roles, may be a way forward in the opinion of both the managing pharmacists from independent pharmacies and pharmacies which are part of a group and the persons involved in the recruitment process of support staff.

Overall, the managing pharmacists are satisfied with the support they are receiving from the staff they are working with in current community pharmacy settings. In most pharmacies (n=33), support staff have a secondary level of education and they are mostly trained on the job in order to meet the particular needs of pharmacists or the pharmacy. This is reasonable because the pharmacies' needs vary regarding the different distribution of customers' requests on a daily basis. Results from the study indicate that 30-50% of daily customers' requests in independent pharmacies are mostly related to prescription medicines while the same frequency of customers' requests in pharmacies which are part of a group are towards non-prescription and POYC medicines. One example of support staff trained on job are pharmacy assistants in the UK, while the training-on-the job is in line with the UK2 level provided and regulated by GPhC (Boughen and Fenn, 2020).

When asked to recommend specific educational training for pharmacy support staff, 'basic training' was the most frequently suggested by both groups of managing pharmacist. One comment on this question may represent the pharmacists' general attitude towards additional training curricula: "If we could pool the expectations of pharmacists from their support staff and find common points to design a quick course for support staff, it may be helpful. One will also need to assess if the person wants a career in pharmacy or if it is just a stepping stone until they find something else as their level of commitment will be different." This statement indicates that considering the current range of health care services in community pharmacy, additional training for support staff is not a 'must' but may be helpful and particularly needed in the future when new, more complex pharmacy services are to be implemented.

The pharmacists' training suggestions are in line with their opinion about the importance of having prior knowledge on some topics emphasising dermato-cosmetics and minor ailments. More specific suggested training are training on OTC products, skin-care, nutrition and supplements. More generalised are recommendations for patient-care training and basic pharmacy-related training. Common points are observed in the suggestions of persons who are more 'business oriented' and recruit support staff. Their suggestion is practical training in pharmacy on similar topics namely OTC medicines, make-up and self-care while there are some initiatives that support staff may be trained on including the POYC system and dispensing. The particular way how this training should be organised is not clearly defined. A frequent suggestion was 'training in pharmacy done by the pharmacist' with comments that the pharmacist will know best in which field s/he may need help.

One suggested and applicable learning model is sharing the experience between countries who have already advanced in this area (Marriott, 2018). For the evaluation of training programme, Malta may take countries with already developed educational systems for pharmacy support as a model, such as the UK, Denmark or Australia, but looking to adapt it to meet the particular needs of the health care system in the country.

In taking a decision about implementation of additional training there is one more question which should be considered. Should this training be implemented as compulsory and the requirements for support staff formal education increased through regulation? The expressed opinion of all managing pharmacists is shared between 'Agree' (n=24) and 'Neither agree nor disagree' (n=21). As opposed to this, the main attitude of persons who

are dealing with the recruitment of support staff as identified from the focus group are more sceptic and critical, and stated the necessity to balance between potential positive outcomes and negative aspects, considering that the already existing problem in recruitment of support staff could be even further enhanced. The shortage of pharmacy support staff is partially solved by employment of part-time workers. There is a big fear that this category of support staff may feel pressurised and not motivated enough to remain or to start working in community pharmacy if training would be compulsory. Consequently, increasing the salary is considered as both a positive and negative aspect. Hence, prior taking a final decision about implementing compulsory training for the support staff there is need to ensure the feasibility of that step and to identify other problems which may arise.

4.4 Health care services

Like across Europe, in order to ensure a feasible way for implementation of advanced pharmacist-led services in community pharmacy in Malta, there is need for shifting some roles from pharmacists to trained pharmacy support staff. By including trained support staff in conducting some of the non-traditional support staff' duties, the pressure on pharmacists caused by an increase in their workload is lessened. The negative impact on pharmacists' quality of service to the patient can be caused by increased workload which is confirmed by one third (35.5%) of pharmacist stating that on average, 75% of their working time is dedicated towards patient-care services (Taylor and Mehta, 2020).

Most of the pharmacists in present study agreed that a large proportion of their working time is dedicated to counseling patients about minor ailments, dispensing prescribed

medicines and POYC medicines and administrative tasks. This indicates the topic areas where the pharmacists' may need help. Considering that point-of-care testing is the activity to which least time is dedicated it may be an area for improvement where community pharmacy customers in Malta need to become more aware of the services that they can access in the pharmacy.

The majority of the managing pharmacists in the present study expressed high level of trust in the capability of pharmacy support staff to be trained to perform various healthcare services in community pharmacy safely and under pharmacist supervision. In their opinion, if support staff are trained on particular tasks, this will ensure a consistent and higher level of service, increase patient satisfaction and decrease incidence of errors.

The pharmacists were asked to give an opinion on already existing health care services such as monitoring blood glucose and blood pressure, dispensing through POYC scheme, monitoring BMI, urine and pregnancy testing and reconstituting of medicines. The performing of these test and counseling regarding obtained results is currently the duty entrusted only to pharmacists. These services are considered as potential new tasks for trained support staff who could perform the services safely under the pharmacist supervision.

The persons included in the recruitment process of support staff mainly considered more technical tasks as support staff roles, such as checking expiry dates and stock management, placing medicines in an orderly manner and pricing. Assisting in POYC dispensing and performing some of point-of-care testing was the least suggested.

Commonly seen opinions from all participants in this study regarding the potential new roles of trained support staff is that the role of pharmacists has to be safeguarded in any possible scenario. The pharmacy support staff has to work as a part of team, collaboratively to assist to the pharmacists but not to replace them in more advanced roles (Koehler and Brown, 2017a). Many studies conducted have shown the evolving role, mostly of pharmacy technicians in Europe, Australia, USA and Canada, where advanced health care services have been already implemented. Examples of new pharmacy technician roles are immunisation administration, technician accuracy checking and point-of-care testing in the US (Taylor and Mehta, 2020), the final accuracy checking, medicines optimisation and management in pharmacy in the UK (Boughen and Fenn, 2020), the management of medicines distribution system in Canada (Koehler and Brown, 2017a) and the delivery of Inhaler Technique assessment service in Denmark (El-Souri et al, 2020).

Additional training adjusted to meet needs of community pharmacy in Malta will ensure that some of currently 'just pharmacists tasks' can be safely performed by trained support staff and will enhance the feasibility of further expansion of pharmacy services.

4.5 Limitations

Considering the relatively small number of managing pharmacists who participated in this study it may be that the collected results are not representative of the entire population of managing pharmacists in community pharmacy in Malta. The questionnaire dissemination and organisation of focus group discussion was limited since it happened during the period when Malta was facing the first wave of the COVID-19 pandemic.

Following the necessary precautions, the only acceptable way for conducting survey was online. The pharmacists' opinion could also be influenced by changed working organisation due to COVID-19 since the pharmacy customers were not allowed to come in the pharmacy.

4.6 Recommendations

For further evaluation, the recommendations would be to obtain more information about the content of learning curricula for future support staff additional training, and the whole setting for the training. A question which still needs to be clarified is the decision between training in pharmacy done by the pharmacists or general training organised by health care bodies. Related to this the assessment of pharmacists' opinion towards their motivation and availability to train the support staff. Regarding very specific pharmacy support staff structure in Malta, further studies can try to address the problem of a very small number of applicants for the already existing pharmacy technician course and what can be done to attract young people to the pharmacy technician profession and to remain working in community pharmacy. Regarding the expressed opinion of most participants in the focus group discussion that the technical tasks should mostly be entrusted to support staff, another recommendation for further study is to explore the awareness of pharmacy owners and people who recruit support staff about the potential for more support staff engagement. Related to the obtained results of present study that performing patient-centered health care services engaged least of the pharmacists working time, future studies can examine whether the pharmacy customers in Malta are aware of the health service they can access in community pharmacy.

4.7 Conclusion

This study indicates that pharmacy support staff have a potential to be engaged more to follow increased and more complex health care needs of community. The managing pharmacists showed a high level of confidence in the support staff they are working with, considering that they can be trained on new roles through short, practical, ongoing training. The targeted topic areas for the training curricula are non-prescription products, skin care, nutritional and food supplements. Good communication skills, motivation to learn, nice personality, and patient-focused skills are essential and they outweigh the need for a high formal level of education. Additional training has the potential to ensure a consistent and higher level of pharmacy service, increase patient satisfaction and decrease incidence of errors. However, in line with all changes it is important that pharmacy support staff has to act within their role limits when approaching the patient. The commonality seen between all participants in this study is that the trained support staff should be trained to assist pharmacists at full capacity and to work as a team.

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Publications

Bibic D, Wirth F, Azzopardi LM, Meeting Educational Needs of Pharmaceutical Stakeholders: Community Practice (Poster presentation, FIP Virtual 2020, 14-22 September 2020)

SEVILLE 2021
FIP WORLD CONGRESS
12-16 September

Meeting Educational Needs of Pharmaceutical Stakeholders: Community Practice

Dijana Bibic[1], Francesca Wirth[1], Lilian M Azzopardi[1],

[1]Department of Pharmacy, Faculty of Medicine and Surgery, University of Malta, Malta

Background

A relevant level of competence of the community pharmacy working team is essential to meet the expanding scope of patient-focused practice.

Purpose

To describe pharmacy support staff structures in community pharmacies in Malta and to identify education and training needs for pharmacy support staff.

Method

A validated self-administered questionnaire was disseminated to 30 managing pharmacists practicing in pharmacies which are part of a group and 30 managing pharmacists practicing in independent pharmacies. The questionnaire addresses pharmacy support staff structure, expected skills, health care services which pharmacy support staff could be trained on, and additional educational and training needs.

Results

Forty-five responses were received. The pharmacy support staff structure consists of salespersons in 42 pharmacies, pharmacy student trainees in 22 pharmacies and pharmacy technicians in 10 pharmacies. Motivation to learn (n=38), to be patient-focused (n=36),

enthusiastic (n=34) and accurate (n=32) were rated as ‘very important’ pharmacy support staff skills. An area identified by the majority of the respondents (n=41) where support staff could receive additional training is related to reducing drug wastage and educating patients on drug waste management. Thirty-one pharmacists considered that improving pharmacy-related knowledge of pharmacy support staff would free up time for community pharmacists which they can dedicate for clinical tasks.

Conclusion

Respondents identified areas that are relevant in the elaboration of short-courses intended for pharmacy support staff such as accuracy, documentation and patient education campaigns.

Topic area

Community pharmacy: Academic pharmacy

FIP VIRTUAL 2020 SEPTEMBER

MEETING EDUCATIONAL NEEDS OF PHARMACEUTICAL STAKEHOLDERS: COMMUNITY PRACTICE

L-Università ta' Malta Faculty of Medicine & Surgery | Department of Pharmacy

Dijana Bibic, Francesca Wirth, Lilian M Azzopardi

Department of Pharmacy, Faculty of Medicine and Surgery, University of Malta, Msida, Malta

email: dijana.r.bibic.19@um.edu.mt

INTRODUCTION

Pharmacy support staff roles have evolved following the implementation of more patient-centered pharmacy services and the expanding role of community pharmacists in the primary health care system.[1]

A relevant level of competence of the community pharmacy working team is essential to meet the expanding scope of patient-focused practice. To ensure the right level of competence of all the pharmacy working team to take on new roles, investment in continuing education and training are recognised as crucial.[2]

The education strategy for the entire pharmacy workforce has to be flexible and adaptable, accessible to all the team and modelled to meet local needs.[3] One such model of education is a needs-based education program, which entails an ability-based learning system applicable in different working settings.[2]

METHOD

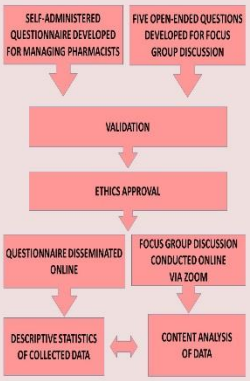

Table 1: Health care services pharmacy support staff could be trained on (N=60)

Health care services	Independent	Group
Drug waste management	23	28
Monitoring blood pressure	21	18
Dispensing medicines through national health service scheme	18	20
Pregnancy testing	14	21
Monitoring blood glucose	16	17
Body mass index measurement	16	17
Urine testing	13	18
Reconstituting medicines	11	16

Table 2: Pharmacy support staff skills considered as 'Very important' (N=60)

Skills	Independent	Group
Communication skills	27	17
Motivation to learn	23	25
Customer-focused	26	22
Accuracy	26	18
Ability to prioritise	26	14
Ability to multitask	23	18
Enthusiasm	25	22
Computer literacy	17	15
An analytical mind	10	13
Mathematical skills	8	3

AIMS

The aims of this study were to:

- Describe current pharmacy support staff structures in community pharmacies in Malta
- Identify education and training needs to ensure the ability of pharmacy support staff to complete required tasks safely and to the required standards

SETTING

Community pharmacy, including independent pharmacies and pharmacies which are part of a group.

Stakeholders involved in focus group included one pharmacist owner of a pharmacy group, one pharmacist owner of an independent pharmacy, one human resources personnel manager of a pharmacy group who is a pharmacist, one practicing community pharmacist and two patient representatives.

RESULTS

- Sixty questionnaire responses were collected; 30 responses from managing pharmacists practicing in a pharmacy which is part of a 'Group' and 30 responses from managing pharmacists practicing in 'Independent' pharmacies.

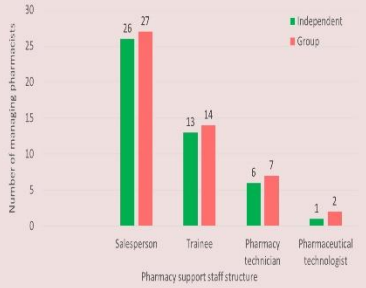

Figure 1: Pharmacy support staff structure (N=60)

CONCLUSION

The identified pharmacy support staff structure consisted mostly of salespersons, followed by pharmacy student trainees. As regards pharmacy support staff skills, managing pharmacists from independent pharmacies considered communication skills as most important and pharmacists from pharmacies part of a group considered motivation to learn as most important.

The study indicates that pharmacy support staff have the potential to be engaged more in following increased and more complex health care needs of the community. The managing pharmacists showed a high level of confidence in the support staff they are working with.

The targeted topic areas for further training of non-pharmacist staff included non-prescription products, skin care, nutrition and food supplements. Additional training could ensure a consistent and higher level of pharmacy service provision, increase patient satisfaction and decrease the incidence of errors.

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Appendices

Appendix 1

Questionnaire for managing pharmacists

Meeting educational needs of pharmacy support staff

*Pharmacy support staff includes pharmacy technicians, pharmaceutical technologists, pharmacy trainees and salespersons
*Required

You are working in: *

Tick all that apply.

- [ ] Independent pharmacy
- [ ] Pharmacy which is a part of a group

1. How many years of working experience do you have in community pharmacy? *

Mark only one oval.

- ◯ less than 1 year
- ◯ 1-4 years
- ◯ 5-10 years
- ◯ more than 10 years

2. How are the customer requests distributed per day for: *

Tick all that apply.

	less than 10%	10%-30%	30%-50%	more than 50%	I am not sure
Non-prescription medicines	☐	☐	☐	☐	☐
Toiletries	☐	☐	☐	☐	☐
Prescription medicines	☐	☐	☐	☐	☐
POYC prescriptions	☐	☐	☐	☐	☐

3. Using a number scale 1 (least time) to 4 (most time) please rank the time dedicated by pharmacists in your community pharmacy towards: *

Tick all that apply.

	1 (least time)	2	3	4 (most time)
counseling patients about minor aliments	☐	☐	☐	☐
behavioral and lifestyle adjustments	☐	☐	☐	☐
dispensing and counseling about medicines prescribed by the doctor	☐	☐	☐	☐
dispensing and counseling about medicines dispensed through the POYC scheme	☐	☐	☐	☐
point-of-care testing like urine, blood glucose, pressure, pregnancy testing	☐	☐	☐	☐
administrative pharmacy related activities	☐	☐	☐	☐
counseling patients about other matters	☐	☐	☐	☐

4. Your pharmacy support staff includes: (you can choose more than one option) *

Tick all that apply.

- [ ] Pharmacy technician
- [ ] Pharmaceutical technologist
- [ ] Trainee (student from Pharmacy Department carrying out pharmacy practice as a part of study program)
- [ ] Salesperson
- [ ] Other:

_____

5. How many support staff are employed in your pharmacy? Are they employed on a full-time basis or part-time basis or do they have a traineeship position? *

_____

_____

_____

_____

_____

6. What highest educational level does the pharmacy support staff you are working with have? *

Tick all that apply.

- [ ] Never attended school
- [ ] Primary level
- [ ] Secondary level
- [ ] Tertiary level, Diploma
- [ ] Tertiary level, Degree

7. Do the pharmacy support staff in your pharmacy have any background in sciences (chemistry, physics, biology, mathematics, general science)? * *Mark only one oval.*

- ◯ Yes
- ◯ No
- ◯ Some of them have a background in sciences while some of them do not have

8. Rate the importance for pharmacy support staff of having prior knowledge on the following topics? *

Mark only one oval per row.

	Not at all important	Not important	Neither important nor unimportant	Important	Very important
Minor aliments	◯	◯	◯	◯	◯
Non-prescription medicines	◯	◯	◯	◯	◯
Dermato-cosmetics	◯	◯	◯	◯	◯
Dental care	◯	◯	◯	◯	◯
Nutrition	◯	◯	◯	◯	◯
Smoking cessation	◯	◯	◯	◯	◯
Baby products	◯	◯	◯	◯	◯
Elderly care	◯	◯	◯	◯	◯

Other option (please specify):

9. Rate the skills that the pharmacy support staff should have? *

Mark only one oval per row.

	Not at all important	Not important	Neither important non unimportant	Important	Very important
mathematical skills	◯	◯	◯	◯	◯
communication skills (verbal and written)	◯	◯	◯	◯	◯
computer literacy	◯	◯	◯	◯	◯
accuracy	◯	◯	◯	◯	◯
ability to prioritise	◯	◯	◯	◯	◯
ability to multitask	◯	◯	◯	◯	◯
customer focused	◯	◯	◯	◯	◯
motivation to learn	◯	◯	◯	◯	◯
an analytical mind	◯	◯	◯	◯	◯
enthusiasm	◯	◯	◯	◯	◯

Other skills (please specify):

_____

10. Using a number scale from 1 (lowest) to 4 (highest) please rank the level of professional support that you are receiving from the pharmacy support staff? * *Mark only one oval.*

- ◯ 1 (lowest)
- ◯ 2
- ◯ 3
- ◯ 4 (highest)

Give a reason for your answer please:

_____

_____

_____

_____

_____

11. Previous retail experience, even not from community pharmacy, should be considered as an asset for recruiting pharmacy support staff? * *Mark only one oval.*

- ◯ Yes, those skills gained in retail are transferable to community pharmacy needs
- ◯ No, better to be trained from the start to meet specific needs of the community pharmacy
- ◯ Other: _____

12. Which health care services could pharmacy support staff be trained to be safely performed at the pharmacy under pharmacist supervision? (you can choose more than one option) *

Tick all that apply.

- [ ] Monitoring blood pressure
- [ ] Monitoring blood glucose
- [ ] Urine testing
- [ ] Pregnancy testing
- [ ] Monitoring BMI (body mass index)
- [ ] Dispensing medicines through POYC scheme
- [ ] Drug waste management
- [ ] Reconstituting of medicines
- [ ] Other:

13. The potential outcomes of providing additional educational training to improve pharmacy-related knowledge of pharmacy support staff would be: (you can choose more than one option) *

Tick all that apply.

- [ ] increase in patient confidence
- [ ] increase in patient satisfaction
- [ ] decrease incidence of errors
- [ ] providing a consistent level of service to the patient
- [ ] providing higher quality service to the patient
- [ ] freeing up the time for pharmacists to dedicate for clinical tasks
- [ ] no improvement to pharmacy service
- [ ] Other:

14. Do you think that the lack of basic pharmacy-related knowledge of pharmacy support staff can make the pharmacist feel overwhelmed? * *Mark only one oval.*

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

15. Which educational training do you recommend if any, for the pharmacy support staff to follow and why? *

16. Do you think that it is necessary to increase requirements for formal qualification of support staff in community pharmacy through an adequate regulation? *

Mark only one oval.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

17. Do you think that increased requirements for pharmacy support staff and regulation in this field would hinder the recruitment process? * *Mark only one oval.*

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

18. Do you agree that continuing education (CE) should be introduced as a requirement for pharmacists? * *Mark only one oval.*

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

19. How many continuing education activities have you attended over the past 1-2 years? *

Mark only one oval.

- None
- 1
- 2-3
- 4-5
- more than 5

20. Additional comments?

Appendix 2

Ethics approval

Received via email

Dear Dijana Bibic,

Thank you for your email.

Documentation received with thanks.

Since your application is self-assessed, FREC will keep your application for filing and records only and it will not review your application.

You may proceed with your study.

Any ethical and legal issues including data protection issues are your responsibility and that of the supervisor.

Regards,

Ms Ruth Stivala

B.A.(Hons)(Melit.),M.A.(Melit.)

Secretary

Faculty Research Ethics Committee

Faculty of Medicine & Surgery

University of Malta Medical School

Block A, Level 0, Rm 364

Mater Dei Hospital

Tal-Qroqq

Msida MSD2090, Malta

t: 356 2340 **1214**

Web: www.um.edu.mt