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Foreword

The tri-fold functions of academic institutions include instruction, research and community extension. Among these three, research stands as the very foundation of knowledge which directs what the teacher needs to provide his community. Without research therefore, instruction is void of development while community extension is void of adaptability and sustainability. It cannot therefore be overemphasized how vital the research process is for the continued development of a teacher and of his institution. Realizing this fact, the faculty members of the Allied Medical Professions of Lyceum of the Philippines University - Batangas remains committed to the research endeavors of the school.

The research journal of the College is one venue on how the research outputs of every faculty members and students can be disseminated and utilized. It is the hope and prayer of the College that the culture of research continues to grow in the hearts of every faculty member as wells as with their students. We are sowing the seeds of this culture through this research journal and we need to stand guard to its development and nurture it to a full bloom.

An Assessment of Community Pharmacists' Preparedness for Acute Medical Emergencies in Batangas City

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Abstract

Pharmacists are among the most available medical practitioners in the community who can help support patients in emergency preparedness and response by leveraging their expertise. The main purpose of this study was to assess the community pharmacists' preparedness for acute medical emergencies in Batangas City. More specifically, it determined the demographic profile of the participants in terms of age, gender, years of practice and level of education; assessed the preparedness of pharmacists for urgent emergency circumstances, including the trainings received for responding to medical emergencies, equipment required to respond to emergencies, occurrence and forms of medical emergencies in pharmacies; measured pharmacists' self-effectiveness and cooperative efficacy in response to medical emergencies in their pharmacies; and determined whether disparities occur between pharmacists in self-efficacy and group efficacy. The descriptive-survey method was used to assess the community pharmacists' preparedness for acute medical emergencies which was established through an online survey. Most of the participants are female, attained bachelor's degree, aged 20 – 25 years old, and had 1 – 3 years practicing pharmacy, mostly in a chain drug store. Most pharmacists are not certified in both First aid and Cardiopulmonary Resuscitation (CPR) training. However, despite not having a policy regarding acute medical emergencies, most are well equipped with first aid kits inside the pharmacy. Though medical emergencies happen very rarely to none, most of the medical emergencies that occur are asthma exacerbations, having experienced by them at least 1-2 times. Both the self-efficacy and collective efficacy are generally disagreed by the participants in terms of responding to emergencies. The disparities between pharmacists in emergency preparedness on self-efficacy and group efficacy are not significant.

Keywords: Cooperative efficacy, CPR, First-aid, Self-efficacy , Training

INTRODUCTION

Medical emergencies can happen at any place and anytime. Consequently, it is vital to be able to recognize the nature of an emergency as early as it emerges and to have the awareness, competence, and confidence to be able to take effective appropriate action. Pharmacists are an essential member of the management of healthcare treatment. They play significant roles as a member of the emergency medical team. The classical activities of the profession are focused on drug dispensing and supply, with little interaction with other healthcare professionals. However, pharmacists might also ensure the reasonable and cost-effective use of medicines, encourage a healthy lifestyle, and optimize clinical outcomes by diligently engaging in direct patient care and partnering with a variety of healthcare disciplines (Dalton & Byrne, 2017).

According to Senate Bill No. 3458, there are a vast number of emergency cases arising from natural and man-made disasters, illnesses, diseases, and even terrorist acts. There is truly a significant need for ambulance service, paramedics, and EMTs to provide out-of-hospital, pre-hospital, and emergency care in our homes, on the streets, or anywhere else. Therefore, the practice of this field needs to be systematized and regulated as this will go a long way to reduce the country's mortality rate as well as the rate of disabilities that occur due to a lack of or inefficient provision of emergency medical care services to our citizens.

It may seem at first glance that pharmacists do not have any training associated with handling medical emergencies, but pharmacists addressed chronic medical conditions or acute infectious diseases through pharmaceutical therapy (Parrett, 2014). Pharmacists are among the most available medical practitioners in the community who can help support patients in emergency preparedness and response by leveraging their expertise (Jamie Kellner et al., 2014). Pharmacists participating in emergency recovery operations need advanced expertise to help them provide quick and reliable prescription treatment in an emergency. Defining a pharmacist's role in such events, offering training courses, and setting down guidance on force management helps pharmacists successfully execute their particular roles in an activity of emergency response (Pincock et al., 2011). They undergo training to strengthen and protect public health in an emergency by preparedness and preparation. Based on the research entitled Determination of Community and Hospital Pharmacists to Respond in Emergency and Disaster conducted by Badong and Villarin in

Davao City Philippines, the level of preparedness was moderate among pharmacists working in communities and hospitals. Preparedness was at a moderate level for the provision of prescription medication administration, accessibility to finance and essential purchases, efficient communication, documentation, and drug inventory.

Little was studied regarding the role of the pharmacist in medical emergencies. No study has been found to date in the Philippines to explain the kinds of medical emergencies faced by community pharmacists or how community pharmacists have responded to medical emergencies. Although pharmacists are not typically skilled with emergencies, they are often concerned with the use of medications provided. Here, pharmacists can help a great deal during a medical emergency through their advanced pharmaceutical training.

The general objective of the study was to assess the preparedness of community pharmacists for acute medical emergencies in Batangas City. More specifically, (1) to determine the demographic profile of the participants in terms of age, gender, years of practice, and level of education; (2) to assess the preparedness of pharmacists for urgent emergency circumstances, including the training they had received for responding to medical emergencies, the type of pharmacy equipment required to respond to medical emergencies, the occurrence of medical emergencies in pharmacies and the forms of medical emergencies; (3) to measure pharmacists' self-effectiveness and cooperative efficacy in response to medical emergencies in their pharmacies; (4) to determine whether disparities occur between pharmacists in emergency preparedness on self-efficacy and group efficacy. This study focused on evaluating the preparedness of community pharmacists for acute medical emergencies in Batangas City only. The proponents of the study claim that there are emerging concerns with the community pharmacist's preparedness for acute medical emergencies. Particularly, this study can provide important data and results to the different community pharmacist-owners, patients, and organizations concerning the readiness of community pharmacists, to provide, if possible, further training and seminars for them, and to strengthen the current training and seminars provided to them.

METHODOLOGY

Research Design

The descriptive survey method was used to assess the community pharmacists' preparedness for acute medical emergencies. Descriptive research is used to report expenditures and utilization by group, patient, medical specialty, physician, drug class, drug, etc., aimed at describing and identifying a phenomenon. This research focuses more on what has happened than on how or why (Nassaji, 2015). The quantitative methodology derives from the assumption that it is important to critically analyze individual phenomena and factors of human behavior, so this approach has been selected as a suitable method of research. It used a cross-sectional, non-experimental research study that utilized a self-administered, internet-based survey, that was delivered to the community pharmacists.

Participants of the Study

The total population of registered community pharmacists currently employed (February - May 2021) in Batangas City Community Pharmacies was the participants of the study. The community pharmacists that were included were drug retailers that operate with in-store clients including chain drug outlets, prescription grocery stores, and small pharmacies only. The community pharmacists were selected for this research because they are placed in areas where there might be emergency cases. Also, because the pharmacist is likely to be the most experienced practitioner in the area.

Data Gathering Instrument

The research used survey questionnaires as the main instrument in assessing the community pharmacists' preparedness for acute medical emergencies. This was adapted from the research of Mr. Parette (2014) with some modification, or taking only the variables that are important.

The questionnaire consists of five (5) parts. Part 1 is about the demographic profile of the community pharmacist. The demographic details include the gender, age, degrees earned, years of practicing pharmacy, the type of community practice of pharmacists (e.g., independent and chain), and years of practicing in the current pharmacy. Part 2 is about pharmacy emergency training. The details include the training they had received, and the credentials earned. Part 3 is about medical emergencies in

pharmacies. The details include the frequency of such emergencies occurring within the community, the forms of medical emergencies, and the available equipment that will be used in dealing with urgent care emergencies. Part 4 consists of a thirteen-item scale. It is used to evaluate pharmacists' self-efficacy in responding to emergency medical situations, the items included the experience of the pharmacist in conducting CPR and first aid, conducting other emergency skills, and an evaluation about how well the pharmacist thought they were trained for responding to medical emergencies via their preparation. Part 5 consists of a twelve-item scale. It is used to determine the cooperative effectiveness of pharmacists for their pharmacy in emergencies. Items included the pharmacist's confidence that they and their co-workers could perform CPR and first aid, and other rescue skills successfully, as well as evaluating the perception that the pharmacy promotes and facilitates medical emergency skills instruction.

For the fourth and fifth parts, questions were structured using the Likert format. In this survey type, four choices were provided for every question or statement. The choices represent the degree of agreement each respondent has on the given question. The Likert survey was the selected questionnaire type as this enabled the participants to answer the survey easily. In addition, this research instrument allowed the research to carry out the quantitative approach effectively with the use of statistics for data interpretation.

Data Gathering Procedure

After the tools used for data collection were selected and completed, researchers tracked the participants by using online resources such as email, Google, Facebook and other mobile devices and platforms. The researchers established an online survey for data collection. The researchers, then, submitted the survey to the community pharmacists, who were the participants to this research. The purpose of the study was clarified by the researchers and the questionnaire was clearly explained to the participants. The researchers gathered data, analysed the results, and implemented the statistical processing used in the study after the data is collected.

Ethical Consideration

As this study shall be in accordance with the Republic of the Philippines Act No. 10173, entitled "The Data Protection Act 2012," researchers ensured that no personal information is declared.

Participants will be notified and notified in advance of the research work that they could participate in writing to all participants. In the course of this research paper, all data obtained was used only for the study and kept private

Statistical Analysis

The online surveys and printed materials are compiled and tabulated by the researchers after they have gone through a certain procedure and test, and the data gathered is then used to solve the study's goals, which are to determine the demographic profile of the participants in terms of age, gender, years of practice and level of education; to assess the preparedness of pharmacists for urgent emergency circumstances; to develop new scales to measure pharmacists' self-effectiveness and cooperative efficacy in response to medical emergencies in their pharmacies; and to determine whether disparities occur between pharmacists in emergency preparedness, self-efficacy, and group efficacy.

For the objectives, first, the researchers used frequency distribution and percentage to characterize the demographic profile in terms of age, gender, years of practice, and level of education. For the second objective, the formula used is the same as the first objective to assess the pharmacist's preparedness for urgent emergency circumstances, including the training they have attended, type of pharmacy equipment that is required to respond to each medical emergency, the occurrence of medical emergencies in pharmacies and the forms of medical emergencies. For the third objective, a 4-point Likert scale was used to measure responses in the assessment of community pharmacists' preparedness for acute medical emergencies. The values vary from one to four, with 1 being the lowest and 4 being the highest score and rating system. For each numerical attribute, equivalent verbal representations were used.

For the last objective, the researchers used mean and analysis of variance to find significant differences in the capabilities of pharmacists in terms of the third objective

Table 1 presents the demographic profile of the participants. Data showed that all the participants were female and graduated with a Bachelor of Science in Pharmacy. Most of the participants' age ranges from 20 – 25 years old (85%) and had 1 –

The following information was used to interpret the options:

Options	Verbal Interpretation	Scale or Range
4	Strongly Agree	3.50 - 4.00
3	Agree	2.50 - 3.49
2	Disagree	1.50 - 2.49
1	Strongly Disagree	1.00 - 1.49

RESULTS AND DISCUSSION

Table 1
Demographic Profile

Profile	<i>f</i>	%
Gender		
Female	20	100.0
Age		
20 – 25 years old	17	85.0
26 – 30 years old	2	10.0
36 – 40 years old	1	5.0
Degrees earned		
BS Pharm	20	100.0
Years of Practicing Pharmacy		
1 – 3 years	13	65.0
4 – 6 years	5	25.0
6 – 9 years	1	5.0
≥ 10 years	1	5.0
Area of practice in pharmacy		
Independent Pharmacy	1	5.0
Chain Drug Store	19	95.0
Years of Practicing in Current Pharmacy		
1 – 3 years	15	75.0
4 – 6 years	5	25.0

3 years practicing pharmacy (65%) mostly in a chain drug store (95%).

In Pharmacy, females are the ones commonly taking this course and seen working in many drugstores. Perhaps with the

patience required in undertaking the subjects during the course, less outside experiences, more laboratory works, and memorizing the details of medicines to be prescribed to many kinds of diseases to different conditions of their patients.

According to Shaman (2016), women have more natural abilities that make them successful workers who can contribute to the company's success. Women prefer to work in support positions rather than management positions. Women also place a higher value on the importance of completed activities and social relationships than men, whereas men place a lower-income value. (Carvajal et al., 2013)

Young community pharmacists comprise a greater percentage of the participants. Employers believed that younger people might be more involved at work than their elders and that age could influence their decisions because of health deterioration. In general, an older person's viewpoints and perceptions differ from those of a younger person on a given subject.

Participants' age is used to understand their views and opinions on a particular study subject and identifies the participants' level of maturity (Shodhganga, 2014). Various scientific disciplines show that the different age groups of participants have different opinions on different topics of study (Dobronte, 2013). Therefore, age plays a significant role in analyzing and interpreting responses.

Nowadays, education, most specifically for a college graduate, is needed in the workplace. College graduates are more likely to have skills that prepare them for a wide variety of jobs in fields with more opportunities for advancement. This is proven by the profile of the participants.

Educational attainment fosters constructive cultural relations and allows people to participate positively in society to be stable for the country's growth (Toscano & Costa, 2017). A higher educational degree demonstrates that an individual is committed to learning and using knowledge, skills, ideas, theories, and methodologies to fulfill the obligations and objectives that these organizations seek in an application (Santiago, 2018).

After a few years of work, employees demand more, which is probably why most of them stay with the company for a shorter period. Humans get wired to seek out more of their work to be satisfied. They look for better opportunities in their immediate environment, linked to their previous job in a new environment and with new people. Therefore, it is a need to upgrade the present knowledge of employees to cope with the demand of their works and be more competitive.

Employees nowadays rarely stay in their jobs for long periods. They switch to another company for various reasons, including a higher income, a more caring and thoughtful supervisor, or the job's location (Rossi, 2018). Another motivation for job-hopping, according to Kruse (2014), is that employees want to make more money. In the meantime, according to Harris (2014), employees who job-hop will have a greater link to the outside world.

Chain drug stores are where most of the community pharmacists rendering their service. There are bigger opportunities offered when working in a chain drug store, such as more interaction with patients, exposure to different medicines, and experiencing products of local and foreign supplies.

The Philippines pharmacy retail market is developing due to the country's demand for generic medicines. Since the 20th century, medicine stores have been a part of the Philippine economy, and among ASEAN countries, the Philippines has the third-largest demand for pharmaceutical products (Tibrewal, 2019). Community pharmacists are health care providers who provide services such as drug coordination, disease prevention and control, and patient education as part of a patient's health care team. Additionally, Community pharmacists also consult with prescribers to ensure that dosages are correct and that new therapies comply with other medications the patient may be taking (Apa, 2015). They provide individualized health promotion and disease prevention services, including immunization administration that was legally and organizationally permitted. With the exponential growth of the global population, so does the use of numerous drugs for chronic conditions (Chen, 2014).

Table 2 presents the frequency table of the participants' Pharmacy Emergency Training. Data showed that all the participants have not yet been certified in cardiopulmonary resuscitation (CPR), are not required by the pharmacy to be certified in CPR, and have not been certified in First Aid (95%), with only one obtaining a Philippine Red Cross Certificate in First Aid Training (5%). Furthermore, the majority of the participants' co-workers are also not required to be certified in CPR (90%).

Most of the Community Pharmacies in the Philippines do not include a Certification in CPR training as one of the qualifications of a Community Pharmacist. Likewise, most of the Pharmacies only include having a Bachelor's/College Degree, as well as having passed the Board Exam.

Table 2.
Pharmacy Emergency Training of the Participants

	<i>f</i>	%
Have you ever been certified in first Aid?		
Yes	1	5.0
No	19	95.0
Have you ever been certified in cardiopulmonary resuscitation (CPR)?		
Yes	0	0
No	20	100.0
Have you ever performed CPR on a person?		
Yes	0	0
No	20	100.0
Are you required by your pharmacy to be certified in CPR?		
Yes	0	0
No	20	100.0
Are other members of your pharmacy required to be certified in CPR?		
Yes	2	10.0
No	18	90.0
Which members of your pharmacy are required to be certified		
Other pharmacists	0	0
Pharmacy Assistant	1	5.0
Clerks	0	0
Cashiers	0	0
Pharmacy/Store Manager	6	30.0
Interns or Externs	0	0
I am not sure	6	30.0
None of the above	7	35.0
From which organization did you obtain your First Aid training?		
TESDA	0	0
Philippine Red Cross	1	5.0
Department of Health	0	0
Bureau of Fire Protection	0	0
Other	0	0
I'm not sure	0	0
Which of the following certifications do you currently hold?		
Emergency medical service NC II	0	0
CPR/Basic Life Support Training	0	0
HSS Philippines Certification Standard First Aid Training	0	0
Advanced Cardiac Life Support (ACLS)	0	0
Pediatric Advanced Life Support (PALS)	0	0
Other	0	0
None of the above	20	100.0

Only immunizing Pharmacists have a requirement of being certified in CPR training. Training for immunization for pharmacists—which most, if not all—require a CPR certificate.

Several studies propose a good result when the immunization training is embedded in the curriculum through the

pharmaceutical care laboratory class equivalent to the dispensing laboratories in the Philippine Pharmacy curriculum (Capistrano et al., 2019). In the United States, the application for vaccine certification requirements must provide proof that the pharmacist has completed an accredited immunization course within the last three years, as well as evidence that the pharmacist is actively trained in cardiopulmonary resuscitation (CPR), as is required in most other states (Milenkovich, 2019).

Since most community pharmacies' qualifications do not include having a certificate in CPR training, most do not have a reason to be certified in CPR. Moreover, due to limited pharmacists and heavy workload, they do not have time to have training in CPR. According to the Philippine Pharmacists Association Inc. (PPhA), there are approximately 50,000 licensed pharmacists on their list as of February 2019, but only 23,500 are participating or working in the sector. They also stated that the country still lacks licensed pharmacists in the region, which is why, even though the legislation allows only one pharmacist on duty in each pharmacy, some may still fail to comply with the requirement to operate (Casamayor, 2019). Moreover, the observed trends in pharmacy workforce utilization in the Philippines raised significant issues and concerns that must be addressed to keep an adequate number of pharmacists in the region. These include, among other things, low remuneration rates, a heavy workload, and a low status of the profession (Loquias & Robles, 2012). In addition, pharmacist perception in the provision of first aid and responding to emergencies is that there are operational barriers to enhanced pharmacist roles and that some have low interest and uptake, and cost. One pharmacist tackled that pharmacist say that they're already too busy, and they're struggling, and they can't do anything more (Cook et al., 2017).

CPR is rarely performed on a person without adequate knowledge of it. Since not all pharmacists are required to have a certificate in CPR, it explains why this is rarely performed on a person.

According to doctors, thousands of people die as a result of cardiac arrest when spectators do not know how to perform CPR. Dr. Francis Lavapie, chairman of the PHA Council on CPR, cited existing global estimates indicating that 53 percent of all out-of-hospital cardiac arrest cases were observed by a bystander, but only 36 percent of these cases obtained CPR, resulting in a 23.8 percent survival rate to hospital admission (Uy, 2014). Health Secretary Francisco Duque III wished that everyone would know how to perform CPR, but for the time being, the goal is for at least

one member of each family to be able to do so, as this would increase the survival rate of a person experiencing cardiac arrest by 50%. He also said that the Philippines is not among the top countries in terms of CPR knowledge and capacity (Crisostomo, 2018). Furthermore, recognized obstacles to conducting bystander CPR, such as fear of prosecution, the danger of disease transmission, and fear of inadvertently harming anyone if CPR is performed unnecessarily or improperly, were overcome via lay public training (Santos, 2018).

As with the certification of CPR training, being certified in first-aid training is also not included in the qualifications of a pharmacist to be accepted in Community Pharmacies. Most of the qualifications include possession of a Bachelor's/College Degree and obtaining a Professional License. In addition, most pharmacy schools do not include First-aid training in the teaching curriculum.

The adequate skills needed for dealing with an emergency outside of a hospital environment at the scene of the accident or emergency might not be necessary because most medical schools do not have formal first-aid instruction in their teaching curriculum (Babar et al., 2020). Furthermore, in the 2020 analysis of Management of Minor Ailments by Community Pharmacists in Cebu, Philippines, no ailment-specific training was identified to equip pharmacists in the management of minor ailments (Arce & See, 2020). On the other hand, in Australia, it has been stated that pharmacists should receive relevant first aid training to treat medical emergencies. This approach is consistent with good practice guidelines and pharmacists' goal of providing safe patient care (Hattingh et al., 2011).

Table 3 presents the frequency table of the Medical Emergencies in Pharmacies. Data showed that most pharmacies have a first aid kit (18), have no policy in responding to medical emergencies (70%), and had no emergency that needed someone to perform CPR or perform First Aid (95%). Moreover, most of the participants stated that medical emergencies that occurred in their pharmacies happened once and none (40%). Furthermore, the majority stated that medical emergencies occur very rarely and never (40%). Being a medical store, first aid kits would be present inside a pharmacy. It is always a good idea to have medical supplies on hand in case of an unfortunate injury, accident, or illness

Table 3
Medical Emergencies in Pharmacies

	<i>f</i>	%
Which of the following emergency medical equipment does your pharmacy have available for use in an emergency		
Gloves	13	
First aid kit	18	
Pocket mask	3	
Microshields	1	
Bag valve mask	1	
Glucagon emergency kit	1	
None of the above	0	
Does your pharmacy have a policy for how to respond to medical emergencies that occur at the pharmacy?		
No	14	70.0
Yes	6	30.0
Has there ever been an emergency at your pharmacy that needed someone to perform CPR or perform First Aid?		
No	19	95.0
Yes	1	5.0
Since the time you started practicing as a pharmacist, how many medical emergencies have occurred within your pharmacy?		
Once	8	40.0
Twice	2	10.0
Thrice		
Four times		
None	8	40.0
N/A		
Never	1	5.0
No medical emergency happened yet	1	5.0
Approximate how often do medical emergencies occur within your pharmacy?		
Frequently		
Occasionally		
Rarely	4	20.0
Very Rarely	8	40.0
Never	8	40.0

Many drug stores offer ready-made first aid kits, but they can also be customized to particular medical conditions or hobbies such as boating, hiking, or camping. Patients can get a list of approved things for a simple home first aid kit from pharmacists (Terrie, 2012). Legally, all companies are expected to keep their employees safe. To do so, they must first determine their first aid requirements. At the very least, this entails designating an employee to oversee first-aid plans, such as maintaining a well-stocked first

aid box and being responsible for calling emergency services when necessary. Depending on the number of employees in the pharmacy, the way the company interacts with the public, and the environmental hazards it faces, some businesses can need more than one first aider (Wilkinson, 2011).

Policies regarding acute medical emergency preparedness are not evident as emergencies are not frequent in Community Pharmacies. Usually, patients seek advice from pharmacists with regards to infection and minor ailments and not for acute medical emergencies. If they may have policies, it may be more for disaster management and not for acute medical emergencies. Moreover, if policies were implemented, it is only for the reduction of transmission of the COVID-19 virus.

Community pharmacies are often the first point of contact for patients seeking infection advice or self-care remedies for minor ailments (Howard, 2017). Many local governments have developed disaster management and emergency preparedness policies for the health care setting. The goal of this document is to outline potential roles that pharmacists can play in increasing the efficacy of medicine distribution and services in response to natural disasters (International Pharmaceutical Federation, 2016). A document was adapted from the Federation of Asian Pharmaceutical Association's guidance document, which was published on March 16, 2020, to assist neighborhood pharmacies in dealing with the ongoing SARS-COV-2 virus outbreak. This guide includes guidance and supplementary advice relevant to the Philippine situation. It also discusses how to train the pharmacy staff (PPhA, 2020).

Acute emergencies rarely happen in Community Pharmacies in the Philippines. The reason may be because patients go directly to the Hospitals in cases of acute emergencies. Moreover, the role of pharmacists in disasters is unacknowledged. Furthermore, Filipinos view Pharmacists as only sellers of drugs which may be a factor in not approaching pharmacists for acute emergencies.

During crises, pharmacists are ideally qualified to provide healthcare continuity and drug management to impacted populations. However, pharmacists' positions in both formal and informal disasters are still unclear or unacknowledged (Nissen, 2019). Furthermore, most Filipinos' perception of a pharmacist is simply someone who sells medicine. For them, they are the ones who work behind drugstore counters, collecting orders from customers and providing them with the medications they need (Samaniego, 2011).

Medical Emergencies that occurred within the pharmacies. Data showed that most community pharmacists experienced asthma exacerbation (25%) that happened 1-2 times (25%). On the other hand, Heart attack / acute myocardial infarction and diabetic emergency are among the medical emergencies which did not occur in a community pharmacy.

Asthma can be triggered by many factors, especially environmental exposure. As this incident is increasing, it is realized that pharmacists have much to contribute to managing this medical emergency. Direct intervention by pharmacists can improve asthma control in the community.

Community pharmacists have unrealized potential and sub-optimal practice especially because of laws that permit pharmacists to offer asthma relievers without a prescription. As a result of this act, community pharmacists will be the only health professionals qualified to assess patients with asthma who rely on medication daily (Watkins, et al., 2016). Due to their professional experience and regular interaction with patients, pharmacists are ideally qualified to help with asthma treatment. Indeed, there is growing evidence of improvement of asthma management through pharmacist interventions. Pharmacists may provide instruction, evaluate inhaler techniques and offer instruction, if possible, and refer patients to specialists (Bridgeman & Wilken, 2020). According to Nastaravičius and Ramanauskiene (2018), pharmacists must be used with asthma management, as their counseling will help patients adhere to their prescriptions and use inhalers more effectively. Most pharmacists work in patient education and disease control services that are related to the supply or sales of medications. Other research has found that health education services in public pharmacies increase asthma and other disease compliance.

Encountering heart attacks or diabetic emergencies in community pharmacies is rare, as people immediately call an ambulance thinking that community pharmacists can't assess or are not well trained to act in this kind of emergency. CVDs are an essential issue for public health that is addressed by the inclusion of pharmacists in healthcare programs. The training and advice of participants conducted by the participating pharmacists emphasize significantly the role of pharmacists in enhancing and adjusting risks to CVD (Fahsa, et al., 2018). According to the study of Bleske et al., (2014)

Table 4.
Medical Emergencies in Pharmacies

	YES		NO		Times it happened		
	f	%	f	%	Times it happened	f	%
<i>Which of the following emergency medical emergencies, if any, have occurred within your pharmacy</i>							
Heart attack /acute myocardial infarction			20	100.0	0	0	
Difficulty breathing (e.g., choking)	4	20.0	16	80.0	0	17	85.0
					1-2	3	15.0
Asthma exacerbation	5	25.0	15	75.0	0	15	75.0
					1-2	5	25.0
Unconsciousness / Unresponsiveness / Fainting	4	20.0	16	80.0	0	16	80.0
					1-2	3	15.0
					3-4	1	5.0
Severe bleeding or trauma	1	5.0	19	95.0	0	19	95.0
					1-2	1	5.0
Anaphylaxis / allergic reaction	1	5.0	19	95.0	0	19	95.0
					1-2	1	5.0
					1-2	1	5.0
Diabetic emergency			20	100.0	0	0	0
Seizure	3	15.0	17	85.0	0	17	85.0
					1-2	3	15.0

community pharmacists can reliably recognize signs and symptoms of worsened HF in self-identified HF individuals who suffer using a basic clinical method. The relatively high percentage of patients with possible deteriorating HF also means that Community pharmacy action is required.

According to the pilot study of Ali et al., (2012), it demonstrated that a drug kit from local community pharmaceuticals will provide clinically and statistically meaningful improvement in glycemic regulation and in blood pressure. According to the ADA, a team-based solution is the most efficient method for the diabetes management of a patient, and the team will be the most effective if the pharmacist is involved. An analysis released in the Journal of Managed Care and Specialty Pharmacy in 2018 showed that the addition of drug workers to diabetes care teams not only enhances

patient efficiency but also contributes towards preventing complications and reducing costs (MacDonald, 2020).

Table 5 shows the summary of the participants' self-efficacy in terms of responding to emergencies which they generally disagreed with as proven with the computed composite mean of 2.42.

Among the listed items, the highest in rank is an item stating that their employers expect them to take the lead in handling medical emergencies in the pharmacy with the computed mean of 2.95. The item that ranked second on the list indicates that their colleagues anticipate them to take the lead in handling medical emergencies in the pharmacy. Moreover, community pharmacists can stay calm when handling a medical emergency in the pharmacy ranked third.

A community pharmacist can play an active leadership role in managing a medical emergency as a reliable and accessible member of the healthcare team. They play an integral part in the pharmacy thus they ought to be equipped to improve and protect the public in case of medical emergencies. Additionally, remaining calm is one of the most important factors in effectively managing emergencies, even when emergencies necessitate a fast response. A calm and considerate response that elicits trust and respect from those around is essential to be mindful of handling the emergency.

Pharmacists commonly work in groups, such as with pharmacy technicians or other pharmacists. Pharmacists serve as leaders of the pharmacy, whether as technicians' supervisors or as the pharmacist-in-charge (Parrett, 2014). Pharmacists are the cornerstone of the healthcare system. In coordination with other health care providers, pharmacists are responsible for patient outcomes related to drug therapy (Kokane & Avhad, 2016).

On the contrary, ranked lowest is an item that indicates they feel confident in their capacity to conduct CPR in the pharmacy in an emergency with a computed mean of 2.05. They feel secure in their skills to perform rescue breathing in the pharmacy in an emergency and their emergency training has properly educated them to perform CPR efficiently tied up with a computed mean of 2.10.

Most community pharmacists in the Philippines do not require to be certified in cardiopulmonary resuscitation. CPR certification is not required for working in a community pharmacy. The majority of the requirements include completing a Bachelor's/College Degree and having a Professional License.

Table 5.
Pharmacists' self-efficacy in responding to emergency medical situations

	mean	Interpretation	Rank
I feel confident in my capacity to conduct CPR in my pharmacy in an emergency situation.	2.05	Disagree	13
I feel secure in my skills to perform rescue breathing in my pharmacy in an emergency situation.	2.10	Disagree	11.5
I feel secure in my ability to assist someone in my pharmacy who is choking.	2.45	Disagree	8
I feel assured in my capacity to aid someone in my pharmacy who is bleeding excessively.	2.55	Agree	5
My emergency training has properly educated me to perform CPR efficiently.	2.10	Disagree	11.5
I am assured that I can respond effectively to a medical emergency that has occurred in my pharmacy.	2.50	Agree	7
I can stay calm when handling a medical emergency in my pharmacy.	2.70	Agree	3
I am assured I could manage the situation if there was a medical emergency in my pharmacy.	2.55	Agree	5
I feel anxious when a medical emergency happens at my pharmacy.	2.35	Disagree	10
I feel equipped to respond with medical emergencies in my pharmacy that might occur.	2.40	Disagree	9
I am anxious about having to deal with medical emergencies in my pharmacy that could happen.	2.55	Agree	5
My employer expects me to take the lead in handling medical emergencies in the pharmacy.	2.95	Agree	1
My colleagues anticipate me to take the lead in handling medical emergencies in the pharmacy.	2.80	Agree	2
Composite Mean	2.42	Disagree	

An efficient collaborative response involving locally accessible pharmacy personnel—drawing on the efforts of licensed pharmacists and unlicensed support staff—can help reduce damages and relieve hardship in a community during an emergency. Pharmacists and their counterparts typically receive limited training in disaster management and emergency preparedness as part of their initial qualifications, even in countries with well-developed professional educational standards (Alkhalili, et al., 2017)

Table 6 shows the summary of the respondent's collective efficacy in responding to emergency medical situations which they generally disagreed with as proven with the computed composite mean of 2.47.

Among the listed items, the item stating that they can function well together with their colleagues in cases of emergency has the highest mean of 2.85 which indicates that the participants are agreeing to it. In the second rank, item pharmacists can count on my colleagues to do their part in handling a medical emergency (2.70). Moreover, ranking in third place is the item, an emergency medical situation can be handled efficiently by their pharmacy (2.65).

Working well with others is essential for every job, and pharmacy is no different. Pharmacists regularly interact with a group of people, not just in patients, but also with their colleagues. Thus, collective effectiveness is important on how the entire pharmacy will react in the case of medical emergencies occurring in the pharmacy.

Teamwork (in both traditional and flexible teams) is important for pharmacy practice advancement in terms of providing quality treatments and improving the quality of care (Mirkov, 2018). During an emergency, it is essential that all team members, regardless of their training or experience, have a clear understanding of their collective roles and duties so that they can work together effectively to resolve any health risks that occur (Alkhalili et al., 2017). Effective coordination of pharmacists and staff led to prompt and better treatment for patients. The majority of community pharmacy employees who took part in the study did not criticize the plan and were in favor of pharmacists' incorporation into general practice (Karampatakis et al., 2020).

On the other hand, the top three lowest items are the items, their pharmacy advocates for its workers to be equipped for medical

Table 6.
Pharmacists' collective efficacy in responding to emergency medical situations

	mean	Interpretation	Rank
An emergency medical situation can be handled efficiently by my pharmacy.	2.65	Agree	3
My pharmacy is capable of dealing with medical emergencies that can happen within it.	2.50	Agree	8.5
My colleagues and I can work together efficiently to perform CPR.	2.30	Disagree	11
My colleagues and I can work together efficiently to perform rescue breathing.	2.60	Agree	4.5
My colleagues and I can work together efficiently to assist someone who is choking.	2.50	Agree	8.5
My colleagues and I can work together efficiently to help someone who is bleeding excessively.	2.55	Agree	6.5
My pharmacy is expected to be capable of working effectively in handling medical emergencies with rescue personnel.	2.60	Agree	4.5
I can count on my colleagues to do their part in handling a medical emergency.	2.70	Agree	2
My colleagues and I can function well together in cases of emergency.	2.85	Agree	1
My pharmacy has a framework that outlines how medical emergencies should be handled.	2.55	Agree	6.5
My pharmacy advocates its workers to be equipped for medical emergencies.	2.35	Disagree	10
My pharmacy provides opportunities for CPR or other emergency response training and refresher courses.	2.20	Disagree	12
Composite Mean	2.47	Disagree	

emergencies (2.35) and the item, with their colleagues they can work together efficiently to perform CPR (2.30).

While the lowest of all the items is that their pharmacy provides opportunities for CPR or other emergency response training and refresher courses with a mean of 2.20 Which indicates that the participants disagree.

Though pharmacists are qualified to perform CPR or first aid in an emergency, they are still sometimes lacking in skills and knowledge to assess a medical emergency because of inadequate training.

Despite being part of healthcare professionals, national health policymakers and payers have consistently failed to consider pharmacists as health service providers. The failure to reimburse pharmacists was an important hindrance to extending the supply of treatment. They inquired about acute and chronic health problems but not about preventive health treatment, although community pharmacists engage in prevention and control health programs such as immunizations (O'Sullivan et al., 2020). Failure to clarify the pharmacists' legal responsibility and liability, as well as pharmacists' familiarity with the drug and its safety profile, may influence pharmacists' actions in emergencies. Proper guidelines and training should be implemented to ensure that all pharmacists fulfill their present and future roles in a medical emergency, both clinical and public (McMillana et al., 2012). Pharmacists must be knowledgeable of the national and local legislation and rules allowing changes in the course of operation in emergencies. Pharmacists should be trained to improve and protect public health in an emergency, by planning and instruction (Kellner et al., 2014).

Table 7.
Differences on the respondent's Self-efficacy and Collective efficacy

	Mean	t	p-value	Interpretation
Self-efficacy	2.42			
Collective efficacy	2.46	-.593	.560	Not Significant

Presented in Table 7 are the differences in the respondent's self-efficacy and collective efficacy. Data showed no significant difference in the respondent's self-efficacy when compared against their collective efficacy as with the p-value of .560.

Data from the pharmacist's self-efficacy and collective

efficacy showed that pharmacists generally disagreed on both efficacies, contributing to the disparities not being significant. Moreover, in the Philippines, most community pharmacists and even pharmacy assistants are not required to have CPR and first-aid training, which, again, contributes to the disparities. Furthermore, community pharmacists' responsibilities center more on dispensing medicines and counseling patients.

The importance of providing services from traditional dispensing practices to greater involvement in healthy growth is widely recognized, and the evolving role of community pharmacy (Eades, et al., 2011). Even in countries with well-developed professional educational requirements, pharmacists, pharmacy technicians, and other forms usually receive limited training in disaster management and emergency preparedness as part of their initial qualifications (Alkhalili et al., 2017). State boards of pharmacy do not mandate pharmacists to retain CPR/BLS certification to renew their licenses. Given the value of CPR/BLS skills to healthcare providers, this finding may seem alarming, but it is more likely due to state legislatures' unwillingness to codify systems governed by non-governmental agencies. As a result, unless necessary, pharmacists do not keep their CPR certifications from school (Parrett, 2014).

CONCLUSION

1. The majority of the participants were female, attained bachelor's degree, aged 20 – 25 years old, and had 1 – 3 years practicing pharmacy, mostly in a chain drug store.
2. Most pharmacists are not certified in both First aid and CPR training. However, despite not having a policy regarding acute medical emergencies, most are well equipped with first aid kits inside the pharmacy. Though medical emergencies happen very rarely to none, most of the medical emergencies that occur are asthma exacerbations, having experienced it 1-2 times.
3. Both the self-efficacy and collective efficacy are generally disagreed by the participants in terms of responding to emergencies.
4. The disparities between pharmacists in emergency preparedness on self-efficacy and group efficacy are not significant.

RECOMMENDATION

1. Due to the occurrence of COVID-19 and the limited capacity of Hospitals today, Community pharmacists and the pharmacy may be prepared and equipped for the occurrence of acute medical emergencies.
2. First Aid and CPR training may be attended by Community Pharmacists.
3. First Aid and CPR training may be given focus during seminars to enhance the skills and competencies of Pharmacists with regards to acute medical emergency preparedness.
4. Future researchers may have a similar study using other variables not included in this study such as the participants and the place of the study.

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