## UNIVERSITI TEKNOLOGI MARA

# AN EXPLORATORY STUDY ON DEVELOPING A GERIATRIC PHARMACY NETWORK FOR MEDICATION MANAGEMENT VIA TELEHEALTH CONSULTATION

### NOR ELYZATUL AKMA BINTI HAMDAN

Dissertation submitted in partial fulfillment of the requirements for the degree of **Master in Pharmacy Practice** 

**Faculty of Pharmacy** 

October 2021

### **AUTHOR'S DECLARATION**

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student	:	Nor Elyzatul Akma Binti Hamdan
Student I.D. No.	:	2020650076
Programme	:	Master in Pharmacy Practice – PHP772
Faculty	:	Faculty of Pharmacy
Dissertation Title	:	An Exploratory Study on Developing a Geriatric Pharmacy Network for Medication Management via Telehealth Consultation
Signature of Student	:	
Date	:	October 2021

#### ABSTRACT

*Background*: The need for social distancing and disruption of healthcare systems appears to be opening a window of opportunity for greater exposure to the usage of technology in geriatric care. In response to maintain continuity of care and fill in the gap due to the impact of the COVID-19 pandemic, the geriatric pharmacy network (GPN) was developed. The GPN refers to a public-private partnership between Hospital Pharmacists with Academic Pharmacists and Community Pharmacists in Malaysia.

*Objective:* The first phase of this study aims to explore the pharmacists' views on the impact of the COVID-19 pandemic on pharmacist-patient consultations and their views on the feasibility of conducting telehealth to maintain continuity of care in geriatric medication therapy adherence clinics (GMTAC). The second phase aims to elucidate the mechanism for developing a public-private partnership via GPN as an alternative strategy to expand and sustain GMTAC services through telehealth consultations.

*Methods*: This study used a qualitative study design. The first phase of the study involved semi-structured interviews with pharmacists experienced in GMTAC. The second phase of the study involved focus group discussions with the key stakeholders involved in the GMTAC, such as the physicians, staff nurses, and patients. In addition, the key stakeholders involved in the GPN, such as community pharmacists and academic pharmacists, were also invited to this focus group discussion. Both interviews and focus group discussions were collected via an online platform. Data were transcribed verbatim and analysed using a framework analysis method. The NVivo 12 software was used to manage the data.

*Results:* Semi-structured interviews and focus group discussions were conducted with 11 pharmacists and 21 stakeholders, respectively. Three themes emerged on the impact of the COVID-19 pandemic on pharmacist-patient consultation: (1) management of GMTAC services, (2) inefficient communication and (3) the pandemic's effect on emotion, behaviours, and psychology. As for the feasibility of conducting telehealth: (1) utility, (2) acceptance and (3) readiness are the three main themes that emerged. Finally, the focus group discussion resulted in a wide range of themes that help to elucidate the mechanism of developing GPN, categorized into short and long-term goals.

*Conclusion*: The formation of GPN will offer tremendous benefits and has the potential to address the gap caused by the COVID-19 pandemic. The utilization of telehealth is feasible to be implemented to maintain continuity of care, but the challenges and barriers must be addressed. The development of GPN will serve as an alternative strategy to expand the GMTAC services, but the short and long-term goals must be achieved to ensure successful implementation of GPN.

### ACKNOWLEDGEMENT

Firstly, I wish to thank God for giving me the opportunity to embark on my master's degree and for completing this long and challenging journey successfully. My gratitude and thanks go to my supervisor Dr. Shubashini Gnanasan, and co-supervisor, Madam Rosmaliah Binti Alias.

My appreciation goes to my site supervisors Dr Rosmahani Binti Mohd Ali and Puan Nur Syafiqah Binti Mohd Jeffri who provided the facilities and assistance during sampling. Special thanks to my colleagues and friends for helping me with this project.

Finally, this thesis is dedicated to my dear husband, Mr Hafizul Izwan Bin Ngah Temin, and my parents Mr Hamdan Hassan and Madam Noraziah Binti Mattan, for their vision and determination to educate me. This piece of victory is dedicated to all of you. I pray for the best health and grace for all of you and my siblings, Eryn and Zakwan.

I want to thank all my classmates in PHP772, Master's in pharmacy Practice batch 20/21 and those who were directly and indirectly, contributed to the completion of this dissertation.

Alhamdulilah.

## TABLE OF CONTENTS

## Page

CONFIRMATION BY PANEL OF EXAMINERS AUTHOR'S DECLARATION			
ACKNOWLEDGEMENT TABLE OF CONTENTS			v vi
LIST	OF FIG	GURES	xi
LIST	OF AB	BREVIATIONS	xii
CHAF	PTER (	ONE INTRODUCTION	1
1.1	Resear	ch Background	1
1.2	Problem Statement		5
1.3	Objectives		6
1.4	Signifi	cance of Study	7
CHAI	PTER 1	WO LITERATURE REVIEW	8
2.1	2.1 The Impact of Covid-19 Pandemic on Pharmacist-Patient Consultation in		
	Geriat	ric Medication Therapy Adherence Clinic.	8
	2.1.1	Shifts in healthcare services	8
	2.1.2	Patients' concerns during the COVID-19 pandemic	9
	2.1.3	Behavioural changes in patients during the COVID-19 pandemic	10
2.2	The fe	easibility of conducting THC to maintain continuity of care in	
	GMTA	AC clinics from pharmacists' view.	11
	2.2.1	The Perception of Usefulness (utility)	11
	2.2.2	The Capability of the Project Team and Management Support	
		(acceptance)	11
	2.2.3	Government Policy (readiness)	12
2.3	The Appropriateness of developing GPN 13		