

**MSc Nursing Studies**  
**(Leadership in Clinical Practice) Dissertation**

**Effectiveness of Community-  
Based Nursing Program in  
Promoting Self-Management  
for Elderly Patients with  
Diabetes Mellitus**

## Table of Contents

<b>Abstract</b> .....	4
<b>Acknowledgement</b> .....	6
<b>Chapter one: INTRODUCTION AND BACKGROUND</b> .....	7
<b>Introduction</b> .....	7
<b>1.1 Aims and Objectives</b> .....	7
<b>Background</b> .....	9
<b>1.3 Prevalence of Diabetes Mellitus Globally and Locally</b> .....	9
<b>1.4 Diabetes Mellitus Care</b> .....	9
<b>1.5 Community support for DM Patients</b> .....	11
<b>1.6 Community Nursing Services in Hong Kong</b> .....	12
<b>Summary</b> .....	13
<b>Chapter Two: METHODOLOGY AND METHOD</b> .....	14
<b>2.1 Introduction</b> .....	14
<b>2.2 Quantitative and Qualitative Research</b> .....	14
<b>2.2.1 Qualitative Evidence</b> .....	14
<b>2.2.2 Quantitative evidence</b> .....	15
<b>2.3 Search Strategy:</b> .....	15
<b>2.5 Data Analysis Method</b> .....	17
<b>Chapter Three: RESULTS/THEMES</b> .....	19
<b>3.1 Introduction</b> .....	19
<b>3.2 List of selected papers</b> .....	19
<b>3.2 Emerging Themes</b> .....	27
<b>3.2.1 Improved diabetes self-management in older patients</b> .....	27
<b>3.2.2 Behavioral and Lifestyle Interventions promote positive changes in diabetes self-management:</b> .....	27
<b>3.2.4 Culturally tailored interventions promote diabetes self-management within minority groups:</b> .....	28
<b>3.2.5 Interdisciplinary collaborations play a positive role in supporting diabetes self-management:</b> .....	28
<b>3.2.6 Long-term follow-up and continuity of care ensure sustainable support for diabetic patients</b> .....	28
<b>Conclusion</b> .....	29
<b>Chapter four: DISCUSSION</b> .....	30

4.1 Introduction.....	30
4.2 Discussion of Themes.....	30
4.2.1 Improved diabetes self-management in older patients: .....	30
4.2.2 Behavioral and Lifestyle Interventions promote positive changes in diabetes self-management: .....	31
4.2.3 Home visits enable individualized patient care and empower self-management: .....	32
4.2.4 Culturally tailored interventions promote diabetes self-management within minority groups: .....	32
4.2.5 Long-term follow-up and continuity of care ensure sustainable support for diabetic patients: .....	33
4.3 Implications for Practice: .....	33
4.4. Benefits to Patients, Families, Professionals, and Organizations: .....	35
4.5. Need for Further Research: .....	36
4.5 Ethical Implications: .....	36
4.5 Limitations of the Study: .....	37
Conclusion: .....	37
Chapter five: CONCLUSION AND RECOMMENDATIONS.....	38
5.1 Conclusion: .....	38
5.2 Recommendations .....	40
References .....	43
Appendix .....	48

## **Abstract**

### **Aim:**

Proactive and effective diabetes self-management is essential in preventing the development of diabetes complications. This could include things like blood glucose monitoring, physical activity, maintaining a healthy diet, and adhering to medication regimens. Nonetheless, elderly patients with diabetes often encounter challenges engaging in behaviors that help control their condition. The aim of this study is to investigate the effectiveness of nurse-led community programs with interventions, such as education and support, in encouraging diabetes self-management among geriatric patients.

### **Methods:**

This research used a literature review methodology to collect relevant articles that have explored topics related to nurse-led community interventions to promote diabetes self-management in elderly patients. A systematic search of nursing and allied health literature was conducted to identify appropriate research evidence. Ten published peer reviewed articles were chosen and critically appraised to assess their methodological rigor and reliability, as well as to ensure the use of high-quality evidence.

### **Results:**

The key themes that emerged from the literature review include the positive impact of nurse-led education and support, the effectiveness of behavioral and lifestyle interventions, the significance of home visits for individualized care and empowerment, the importance of culturally tailored interventions for minority groups, and the role of long-term follow-up and continuity of care in sustaining support for diabetic patients. These themes show that community nurse-led interventions have a crucial role in promoting diabetes self-management among elderly patients in the community.

### **Discussion:**

The findings of this research emphasize the effectiveness of community nurse-led interventions in encouraging and promoting diabetes self-management among senior patients. As per the findings, nurse-led education and support interventions, delivered through home visits and community settings, improve patients' knowledge, self-efficacy,

and adherence to self-management practices. Furthermore, culturally tailored interventions address the diverse needs of minority groups, increase patient participation in their own care and results in better healthcare outcomes. Long-term follow-up and continuous care interventions contribute to improved self-care activities and decreased healthcare utilization.

**Conclusion:**

Community-wide nurse-led programs have the potential to greatly enhance diabetes self-management among geriatric patients. These programs enable patients to actively participate in their care, resulting in improved health outcomes and enhanced quality of life.

香港醫療論文輔導中心 HKMTGC 版權所有 All Rights Reserved

## Acknowledgement

I would like to express my sincere gratitude to my supervisor, [REDACTED], for her guidance and support throughout the entire dissertation process. Her insightful feedback, constructive criticism, and expert knowledge have been instrumental in shaping the direction and quality of this research. Additionally, I would like to acknowledge the invaluable contribution of the [REDACTED] for their support and assistance throughout this journey. I would also like to extend my sincere appreciation to my classmates, family members and friends for their constant support, encouragement, and motivation. Their unwavering believe in me has been a source of strength and inspiration throughout the entire dissertation.

香港醫療論文輔導中心 HKMTGC 版權所有 All Rights Reserved

## **Chapter one: INTRODUCTION AND BACKGROUND**

### **Introduction**

Diabetes is a long-term disease with no known cure, requiring continuous management upon diagnosis. The Center for Health Promotion (2023) defines diabetes mellitus (DM) as a chronic disorder that leads to insulin deficiency, insulin resistance, or both and is characterized by high blood glucose levels. The key risk factors for diabetes include a family history of diabetes, advanced age, obesity and lack of physical activity (Fan et al., 2023). Drugs such as steroids, some endocrine diseases and pancreatic diseases are also risk factors. Similarly, the World Health Organization described diabetes as a chronic disease that results when the pancreas does not produce enough insulin or the body cannot use the insulin produced effectively (World Health Organization: WHO, 2023). Diabetes mellitus poses significant challenges to patients, leading to complications if not properly managed. Diabetes complications such as cardiovascular, renal, peripheral vascular, ophthalmic, hepatic or neurological diseases are still commonly encountered (Ali et al., 2022). Furthermore, persons living with diabetes have been found to have higher rates of premature death, functional disability, stroke, coronary heart disease, accelerated muscle loss, and hypertension compared to those without diabetes (Lin et al., 2020). Thus, reduction in diabetes-related complications calls for effective diabetes self-management, including self-monitoring of blood glucose levels, suitable physical activity, healthy diet, self-foot checks and engagement with prescribed medication regimens (Li et al., 2022). These diabetes self-management activities may be a challenging issue for elderly patients who may have geriatric syndromes such as cognitive impairment, stress, incontinence and falls.

#### **1.1 Aims and Objectives**

This research paper aims to perform a critical review of prior research in nursing and allied health literature to comprehensively evaluate the effectiveness of community nursing programs in promoting self-management for elderly patients with diabetes mellitus. This paper will provide an in-depth analysis of the literature, and the resulting information can be used to design nurse-led community interventions to enhance self-management skills and empower patients to actively participate in their own care. The following objectives will be used to achieve the aim of this study:

- Conduct an initial literature search to gather relevant research evidence

- Critically appraise the selected studies to assess their methodological rigor, validity, and reliability.
- Synthesize the findings from the selected studies to provide a comprehensive overview of the effectiveness of Community Nursing Programs in promoting self-management for elderly patients with diabetes mellitus
- Discuss the implications of the findings for clinical practice, policy development, and future research.

## 1.2 Dissertation Structure

This dissertation is organized into five chapters, exploring prior literature to assess the effectiveness of community nursing programs in promoting self-management for elderly patients with diabetes mellitus. Chapter one (introduction/background) provides an introduction and presents a background of DM prevalence in HK. There is also a literature review to support nurse-led community interventions to promote DM self-management among elderly patients. Chapter two (methods/methodology) contains a comprehensive review of the existing literature. It examines prior research studies on community-led nursing programs aiming to increase DM self-management. Chapter three (results/themes) highlights the key findings of the selected articles in relation to the research question. In chapter four (discussion), the findings and themes will be discussed in depth and synthesized. Finally, in chapter five (conclusion/recommendations), a summary of the main findings from the analysis and discussion will be presented. The chapter will also provide recommendations for further research and practical application.

### Research question

How can patients with DM be supported by Community-based Nursing Program?



## Background

### 1.3 Prevalence of Diabetes Mellitus Globally and Locally

According to the WHO, approximately 422 million persons have diabetes, and the number continues to increase steadily (WHO, 2019). As a nurse working in a medical ward in Hong Kong, I have witnessed the increasing prevalence of diabetes mellitus among the elderly population. Currently, approximately 700,000 people in Hong Kong (HK) have diabetes mellitus, representing about 10% of the total population (Hospital Authority, 2023). Individuals with diabetes are at risk of developing various complications that can be life-threatening, which can reduce their quality of life and increase their healthcare care expenditures.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### 1.4 Diabetes Mellitus Care

In the year 2019/20, approximately 490,400 persons with DM were under care in specialist outpatient clinics (SOPC), general outpatient clinics (GOPC) and family medicine specialist clinics (FMSC). This is comparable to the year 2011/12, in which 158,000 DM patients were under outpatient care, equating to a 47.5% rise in 8 years. In 2019/20, 63.3% of DM patients were under the care of GOPC, while 36.7% were in SOPC or FMSC. As per the Hospital Authority (2021), a diabetes comprehensive assessment (DCA) is vital in the care of individuals with diabetes, and it encompasses a range of assessments that help evaluate patients' metabolic risk and detect potential complications that may not have silent symptoms, allowing for early intervention. The tests include glycated hemoglobin (HbA1c), low-density lipoprotein (LDL) cholesterol, serum creatinine, urine albumin, and smoking status. Figure 1.3 below compares the completion rates for this assessment in the UK, Europe and HK. There was a lower assessment completion rate of blood pressure and body mass index (BMI) in HK compared to other regions. Urine albumin had the lowest

completion rate across the three regions. The Hospital Authority (2021) further notes that in 2019/20, 52.4% of DM patients met an HBA1c level of less than 7%, which is optimal. Additionally, 63% of individuals with DM have their blood pressure under 140/90 mmHG, which was high compared to the United States. 18% of DM patients did not capture their blood pressure readings and were mostly under the care of SOPC or FMSC. Approximately 73.5% of patients in HK had their LDL cholesterol under 2.6 mmol/L. The Hospital Authority (2021) recommends increasing preventive measures at the community level to reduce the rapid increase of DM in HK.

Figure 1.1: 2021 Age-specific death rate in Hong Kong (HealthyHK, 2021)

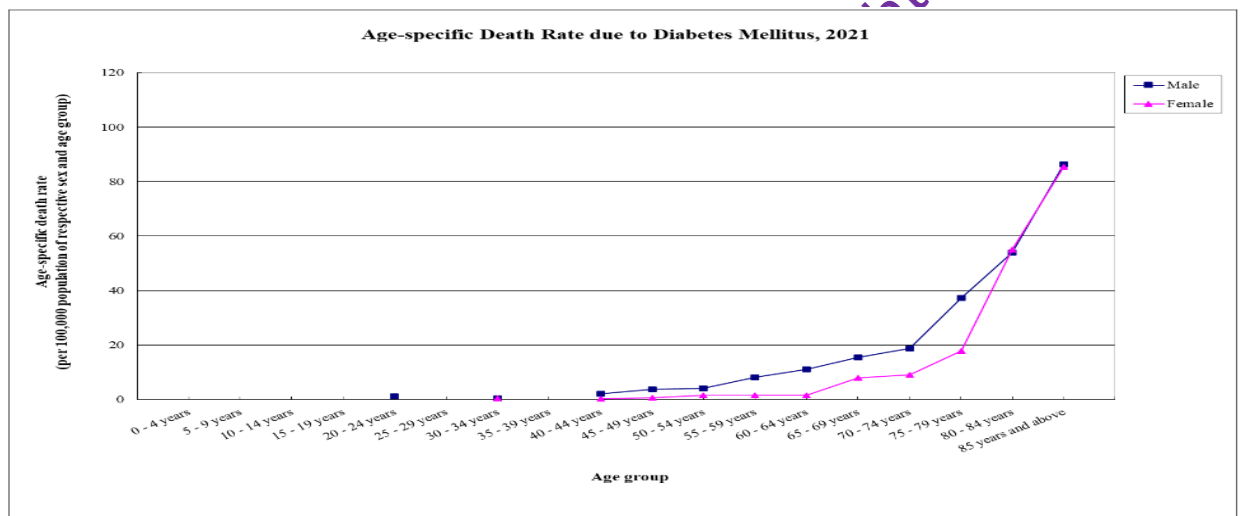


Figure 1.2: Number of DM patients in SOPC, FMSC and GOPC in Hong Kong (Hospital Authority, 2021)

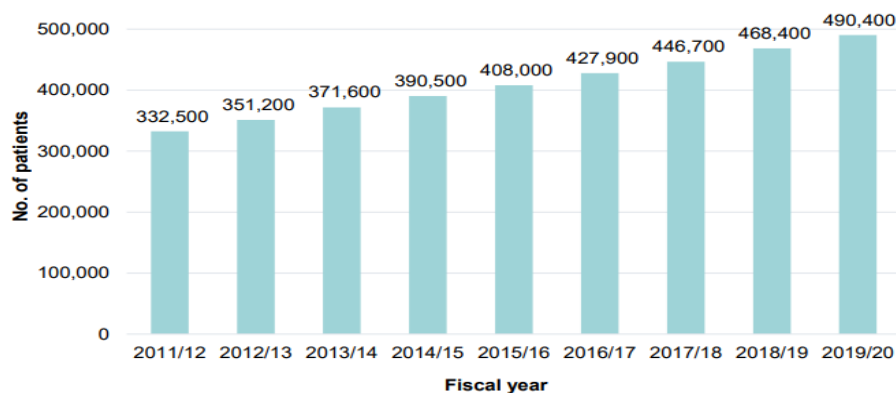


Figure 1.3: Assessment Completion Rate (Hospital Authority, 2021)

DCA items completion rate	HbA1c	Blood pressure	LDL cholesterol	Serum creatinine	Urine albumin	BMI	Smoking
The UK <sup>3</sup>	95.2%	96.2%	92.5%	94.9%	65.6%	87.5%	95.3%
Europe <sup>4</sup>	97.6%	98.3%	82.0%	85.2%	59.4%*	95.4%	46.6%^
HA in HK	94.7%	82.0%	90.4%	95.0%	59.5%	64.2%	95.7%

The Healthcare Challenges in Hong Kong

### 1.5 Community support for DM Patients

Prior research shows that community setting is an important aspect of the prevention and treatment of diabetes (Guo et al., 2019). Diabetic patients require ongoing treatment, including medication and lifestyle modifications, to manage the progression of the disease. Due to its long-term nature and recurrent symptoms, patients and families should have skills for self-monitoring and management to prevent hospitalization, morbidity and mortality due to manageable complications (Jarvis et al., 2010). Figure 1.3 above shows that HK had a lower diabetes assessment completion rate compared to the two regions.

[REDACTED]

Nurses possess the necessary expertise to provide education, support, and guidance to patients, empowering them to take control of their condition and make informed decisions about their health. Nurse-led interventions, including home and phone visits, care coordination, and education on various aspects of diabetes management, such as knowledge improvement, physical activity enhancement,

and a proper diet, can enhance diabetes self-management among older patients. These community nursing programs are likely to enhance quality care because the patient will be properly assessed, served and referred for appropriate care. Furthermore, interventions such as home visits can provide a more detailed picture of the patient's health condition, thus facilitating holistic and proper care (Chan et al., 2017). The HK Nursing Code of Conduct and Practice calls for all nurses to promote health and well-being, prevent diseases, restore health and alleviate suffering due to diseases (Nursing Council of Hong Kong, 2015).

## 1.6 Community Nursing Services in Hong Kong

According to the Health Bureau (2023), Hong Kong is experiencing one of the most rapidly ageing populations, with the current average annual increase rate of persons aged 65 and above estimated at 4% from 2021- 2030. Ageing positively correlates with higher chronic diseases and increased health and social care needs. An ageing population and an increase in chronic diseases can heavily affect secondary and tertiary care, especially in public hospitals. Health Bureau recommends shifting the centre of gravity of Hong Kong's healthcare system from treatment-oriented institutions to prevention-oriented family-centric care. A well-coordinated healthcare at the community level is likely to increase prevention, early diagnosis and management of chronic diseases.

[REDACTED]

The role of the community nursing service is to provide general nursing care, specialized nursing care, health education and home rehabilitation services. The community geriatric team also plays an important role in visiting residential elderly care homes to provide multidisciplinary services and community-based rehabilitation programs. The community psychogeriatric team provide designated care and rehabilitation program.

## Summary

Diabetes mellitus is a chronic disease characterized by raised blood glucose levels, and it poses significant challenges to patients, leading to various complications if not properly managed. With approximately 10% of the total population in HK being affected by DM, the disease presents a significant public health concern. Elderly patients with DM may encounter specific challenges in self-management due to geriatric syndromes such as cognitive impairment, stress, incontinence, and falls. These factors further emphasize the importance of tailored interventions and support to enable effective self-management. Nurse-led community interventions have shown promise in promoting self-management among elderly patients with DM. Community health centers in HK already play a crucial role in providing screenings, education, checkups, and interventions. However, with the rising number of DM patients, a multidisciplinary team approach involving nurses, doctors, and nutritionists is essential to prevent and manage complications at the community level effectively. The subsequent chapters will delve into the existing literature to assess the effectiveness of community nursing programs in promoting self-management among elderly patients with diabetes mellitus?"

香港醫療論文輔導中心 HKMTCC 版權所有 All Rights Reserved

## **Chapter Two: METHODOLOGY AND METHOD**

### **2.1 Introduction**

This chapter outlines the methodology and methods used in this research study. It will provide an overview of the search strategy utilized to locate current articles and relevant research related to the ways in which elderly patients with DM can be supported by Community-based Nursing Programs to enhance self-management. The search strategy will identify and retrieve peer-reviewed articles from various literature sources to address the research question and the PICO components. The section will address the following aspects: the literature search process, databases used, search terms employed, inclusion and exclusion criteria, critiquing framework, and data analysis method.

### **2.2 Quantitative and Qualitative Research**

A mixed methodology encompassing qualitative and quantitative evidence will be used to answer the research question and objectives of this paper. This approach will allow for a comprehensive understanding of how elderly patients with diabetes mellitus can be supported by Community-based Nursing Programs to enhance self-management. Thus, combining quantitative and qualitative approaches can provide a more holistic understanding of complex health systems research questions.

#### **2.2.1 Qualitative Evidence**

A qualitative study uses qualitative methods, that is, narrative descriptions, which can be obtained through various ways such as conversations or interviews, observations, focus groups, and obtaining narrative records such as diaries (Polit & Beck, 2021).

Synthesizing evidence from qualitative research will allow the researcher to obtain information from studies that have comprehensively analyzed the lived experiences of the participants to obtain detailed information that goes beyond numerical data. Rather than focusing on quantifying relationships or testing causal relationships, qualitative research seeks to identify patterns of association and illuminate the underlying meaning and dimensionality of phenomena. By identifying interconnected themes and processes, researchers gain a holistic understanding of the self-management practices of elderly patients with diabetes.

### 2.2.2 Quantitative evidence

In quantitative research, researchers use deductive reasoning to generate predictions that are tested in the real world. They use control strategies and empirical evidence to collect and obtain information about the problem under study. Studies utilizing quantitative methods will be included in this review because quantitative research methods allow for the collection of numerical data, which can be measured, standardized, and analyzed using statistical techniques (Noyes et al., 2019). This approach provides researchers with objective and replicable information about the variables under investigation. Additionally, quantitative methods are vital in addressing specific research questions that require measurement, comparison, and statistical analysis. Quantitative data can help identify the magnitude of certain phenomena, assess the impact of interventions or programs, and systematically examine relationships between variables.

### 2.3 Search Strategy:

Online databases, CINAHL and PubMed, were systematically searched to identify relevant articles to answer the research question, "how can patients with DM be supported by Community-based Nursing Program?" Additional papers were identified on a manual search of the reference list of studies that met the PICO framework. The strategy utilized Boolean operators "AND" and "OR" to combine search terms. These are connecting words that researchers use to find relevant research. "AND" is used to obtain evidence containing both search terms, while "OR" helps retrieve studies with either search terms. Figure 2.1 shows key terms used to search through CINAHL and PubMed.

**Figure 2.1: Boolean Operators**

	Search Index	Search terms
AND	Title / Abstract/full text	Elderly OR aged OR seniors OR geriatrics
	Title / Abstract/full text	Diabetes mellitus, type 2 Diabetes, T2DM, DM self-management OR DM self-care OR DM management at home

AND	Title / Abstract/full text	Community-based nursing program OR community interventions OR nursing interventions in the community OR nursing programs
AND	Title / Abstract/full text	Self-management OR self-care OR disease management

### Inclusion and Exclusion Criteria:

A search was conducted using different combinations of keywords to identify relevant articles addressing the question, **"How can patients with DM be supported by a Community-based Nursing Program?"** The search process yielded a total of 101 articles from CINAHL and 143 articles from PubMed. Inclusion criteria included peer-reviewed articles, either qualitative or quantitative, written in English, and articles published less than 15 years. Articles that focused on the support and care of patients with DM through community-based nursing programs were also included. Furthermore, articles that discussed the role of community-based nursing interventions, strategies, and nurse-led community programs to enhance DM self-management were included. Finally, articles that provided evidence-based practices for enhancing patient support and outcomes in community-based settings were also considered. Figure 2.2 PRISMA flowchart of study selection from the two databases.

### 2.4 Critiquing Framework:

In order to assess the quality and rigor of the selected articles, two critiquing frameworks were employed for the quantitative and qualitative articles. The frameworks chosen were the Critical Appraisal Skills Programme (CASP) randomized controlled trial standard checklist for the quantitative articles and the CASP qualitative checklist for the qualitative articles. The CASP frameworks are widely recognized and used for critically appraising research studies. CASP randomized controlled trial standard checklist contains 11 questions in a 'yes' or 'no' format, and it provides a structured approach to assess the validity of the study design for a randomized controlled trial (RCT), methodology, results, and transferability of the findings. The CASP qualitative checklist that will be used to evaluate the quality and trustworthiness of the qualitative research studies selected



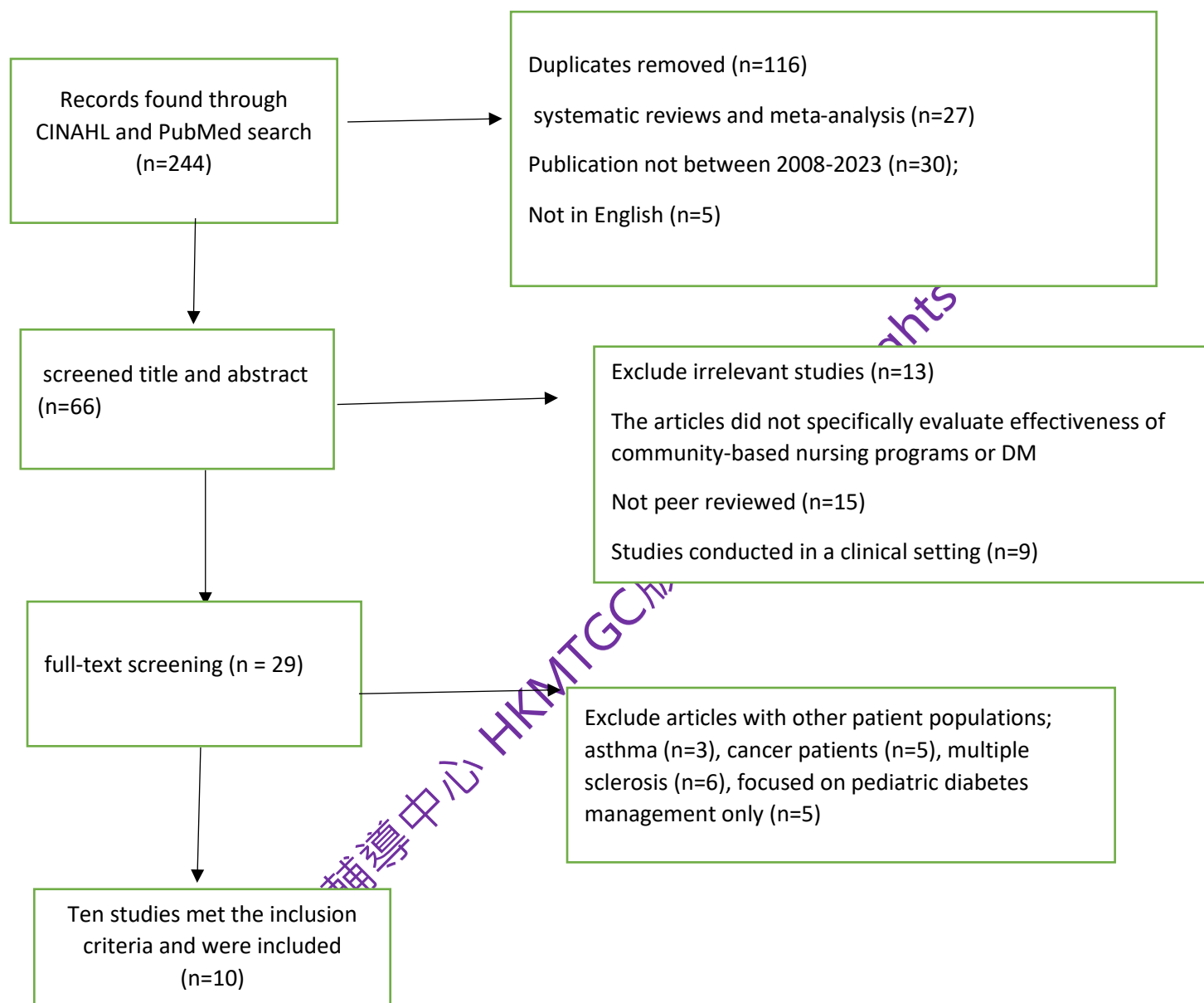
contains ten questions (Long et al., 2020). The checklist helps ensure that the qualitative studies included in the research are rigorous valid, and provide meaningful insights into the phenomenon being studied.

## **2.5 Data Analysis Method**

Thematic analysis will be used to analyze the data extracted from the selected articles. Thematic analysis involves identifying and exploring patterns, regularities, inconsistencies, and gaps within the collected information from the retrieved studies. This method allows for the identification of important themes that emerge from the literature (Polit & Beck, 2021). The researcher will organize and categorize the data obtained based on recurring ideas, concepts, or topics that address the effectiveness of Community-based nursing programs in promoting self-management for elderly patients with diabetes mellitus.

香港醫療論文輔導中心 HKMTGC 版權所有 All Rights Reserved

Figure 2.2 PRISMA flowchart of study selection



## Chapter Three: RESULTS/THEMES

### 3.1 Introduction

In the previous chapter, the methods and methodology used in this study were discussed, focusing on qualitative and quantitative evidence and inclusion and exclusion criteria. A total of ten most relevant articles were carefully selected for further analysis and synthesis to answer the research question of how patients with DM can be supported by community-based nursing programs to improve self-management. The CASP randomized controlled trial standard checklist and CASP qualitative checklist were selected as the critique frameworks for the ten articles. The current chapter presents the results and themes derived from the analysis of the ten articles. The aim is to examine the effectiveness of community-based nursing programs in promoting self-management among elderly patients with diabetes mellitus and answer the research question, **"How can patients with DM be supported by community-based nursing programs?"**

### 3.2 List of selected papers

Figure 3.1 presents the ten articles with homogenous results showing that community-based nursing programs effectively promote DM self-management among elderly patients. The articles are arranged by date, from the most current to the oldest. Figure 3.2 summarizes the ten articles, including authors, setting, the objective of the study, sample research design, results, implications, and conclusion.

**Figure 3.1: List of selected papers**

No.	Researcher (Year)	Title
1.	Yous et al. (2023)	Older Adults' experiences and perceived impacts of the Aging, Community, and Health Research Unit-Community Partnership Program (ACHRU-CPP) for diabetes self-management in Canada
2.	[REDACTED]	Effectiveness of a nurse-led community-based self-management program among adults with diabetes-family dyads in Ethiopia.
3.	[REDACTED]	The Effect of Care Provided at Home by Public Health Nurse on Control of Type II Diabetes Mellitus.
4.	[REDACTED]	Effectiveness of a community-based self-care promoting program for community-dwelling older adults

5.			Community Program Improves Quality of Life and Self-Management in Older Adults with Diabetes Mellitus and Comorbidity.
6.			Community Health Workers Versus Nurses as Counselors or Case Managers in a Self-Help Diabetes Management Program
7.			The Effect of a Community-Based Self-Help Intervention: Korean Americans With Type 2 Diabetes
8.			Tailored Case Management for Diabetes and Hypertension (TEACH-DM) in a community population
9.			Teletransmitted monitoring of blood pressure and bilingual nurse counseling sustained improvements in blood pressure control during 12 months in hypertensive Korean Americans.
10.			Effectiveness of a self-efficacy program for persons with diabetes

香港醫療論文輔導中心 HKMTGC 版權所有 All Rights Reserved

Figure 3.2: Summary Grid

Researcher (Year)	Aim	Sample	Intervention	Research design	Results	Nursing implications
Yous et al. (2023)	This research aimed to assess the experiences and perceived impacts of the ageing, community, and health research unit-community partnership program from the perspectives of older adults with diabetes and other chronic diseases.	Community living older adults (65+ years) with diabetes and at least w other chronic illness (n = 45)	The intervention included home and phone visits, care coordination, system navigation support, caregiver support, and wellness sessions delivered by a nurse, dietitian, or nutritionist.	Qualitative descriptive	The participants reported positive experiences with the program, which improved diabetes self-management, including improved knowledge, enhanced physical activity, and proper eating habits.	This research highlights the importance of community-based, person-centered interventions and collaborative care delivery to support self-management and connect older adults with available health and social services.
	This study purposed to examine the preliminary effect of a nurse-led community-based diabetes self-management education and support.	Adults with type 2 diabetes in the community of Nekemte, Ethiopia (n = 73)	The education intervention entailed a brief introduction about diabetes, misconceptions, physical activity, healthy eating, medication adherence, blood glucose self-monitoring, healthy coping, and risk reduction. The intervention was	RCT	The results show a statistically significant difference between the two groups. For example, there was higher family support provided among families in the intervention group compared to the control group.	Nurses can implement community-based diabetes self-management education and support to enhance self-management practices and family support among elderly patients with diabetes.

			delivered in the community of Nekemte City, Ethiopia, by nurses.			
	The study aimed to examine the effect of home care provided for patients with type 2 diabetes by a public health nurse.	The sample was n=40	The intervention included seven home visits to the experiment group and two home visits for the control group. During the first visit for the control group, the nurse collected HbA1c, and there was no intervention. For the experiment group, there was comprehensive data collection, and patients were educated and trained to adhere to nutrition, exercise plan, drug use, and blood glucose monitoring.	Mixed methodology: Quantitative and qualitative methods	The result shows that, in the intervention group, 75% of the patients started to use insulin properly, unlike in the control group, where there was no observed difference between pre- and post-study. All of the participants in the intervention group developed a habit of tracking their blood glucose, unlike in the control group.	This study will help nurses understand the importance of providing thorough education and training to patients on proper insulin administration and patient-centered education on diabetes self-management
	This study aimed to determine whether a community-based self-care promoting program for	Older adults (60+ years) who were cognitively competent to perform self-care	The intervention included assessment and education on self-care and health-	RCT	The results show that the community-based program was able to	This study suggests that community-based self-care programs, supported by interdisciplinary

	community-dwelling older adults can increase self-efficacy, quality of life, activities of daily living, and medication adherence and reduce health service utilization rate.	activities (n=457) The participants were selected from multiple districts in Hong Kong	promoting behaviors. This intervention was delivered by a team led by a registered nurse case manager and supported by social and community workers.		improve self-efficacy, activities of daily living, and medication adherence.	partnerships, can enhance older adults' self-efficacy, quality of life, activities of daily living, and medication adherence and reduce healthcare service utilization, providing a framework for designing effective nursing interventions.
	The aim of this research was to compare the effect of a 6-month community-based intervention with that of usual care on self-management, self-efficacy, quality of life, anxiety, depressive symptoms, and health care cost in older adults with type 2 diabetes mellitus.	Community-dwelling older adults (65+ years) with type 2 diabetes mellitus and two or more comorbidities (n = 159) The setting was four communities in Ontario, Canada	A customized self-management program was designed with up to 3 in-home visits from registered nurses and registered dietitians	Multisite, pragmatic RCT - combined qualitative and quantitative analysis	The findings indicate that compared to the control group, the intervention group demonstrated significant improvements in mental component score, self-care behaviors, and depressive symptoms. However, no significant group differences were observed in the	This research will help nurses consider implementing a community-based intervention focused on self-management education and support to improve the quality of life and self-management practices of older adults with T2DM and comorbidity.

					physical component score, anxiety, self-efficacy, or total healthcare costs.	
	Kim et al. (2016) aimed to test the effectiveness of community-based multimodal self-help interventions among Korean Americans with type 2 diabetes.	Older adults with uncontrolled diabetes, aged 35-80 years in the Baltimore-Washington metropolitan area (n = 209)	Registered nurses and community health workers delivered the intervention, and it involved educating or training the participants with a special focus on the etiology of diabetes, diet, exercise, medication and stress management, and diabetes health literacy. After this education intervention, the nurses and community health workers did a monthly follow-up through telephone counseling.	RCT	The results of the effectiveness of the intervention delivered by the nurses and community health workers showed no significant difference, and actually, community health workers performed as well as or better than nurses as counselors in a self-help diabetes management program.	The study suggests that community health workers can be effective counselors or case managers in self-help diabetes management programs in Korean-American communities, achieving comparable or better outcomes than registered nurses in terms of psycho-behavioral and physiological outcomes, particularly hemoglobin A1C reductions.



	<p>This study aimed to assess the effectiveness of a community-based, culturally tailored, multimodal behavioral intervention program in patients with type 2 diabetes.</p>	<p>Korean Americans with type 2 diabetes (n = 250)</p>	<p>A team of registered nurses and community health workers delivered an education intervention consisting of self-management skill building followed by counseling and coaching in a naturally occurring community setting.</p>	<p>RCT</p>	<p>The result showed that the intervention group had a higher reduction in hemoglobin A1c compared to the control group.</p>	<p>The study indicated that implementing RN/community health worker teams with culturally tailored training can effectively assist ethnic/linguistic minority groups in managing diabetes in the community.</p>
	<p>This study sought to investigate the effectiveness of a behavioral intervention among community patients with poorly controlled diabetes and comorbid-hypertension.</p>	<p>Patients with poorly controlled type 2 diabetes (n = 377)</p>	<p>The study evaluated telephone-delivered behavioral interventions administered by nurses, and the target was to cultivate healthy behaviors for diabetes and hypertension control, provide support for the adoption of healthy behavior, and identify and correct</p>	<p>RCT</p>	<p>As per the results, both groups had elevated baseline levels of HbA1c, but compared to the control group, the intervention group demonstrated statistically significant reductions in HbA1c.</p>	<p>The practical nursing implication is that implementing such intervention programs can lead to better management of diabetes in the community,</p>

			barriers to adopting healthy behavior.			
	Kim et al. (2011) sought to examine the sustainability of a community-based lifestyle modification educational program delivered through telephone self-BP monitoring and nurse-led counseling.	Middle-aged patients aged 40-64 years (n = 359) Korean Americans residing in the Baltimore-Washington Metropolitan area	This community nurse-led intervention was a six-week behavioral education followed by home telemonitoring of BP.	RCT	A significant increase in BP control rates was evident in the control group, suggesting the effectiveness of home telemonitoring BP and tailored counseling led by nurses.	Nurses can utilize the findings of this research to support patients in managing their hypertension and potentially reduce the risk of complications associated with uncontrolled BP, which is important in overall diabetes management.
	Wu et al. (2011) aimed to evaluate the effect of self-efficacy programs on persons with type 2 diabetes in Taiwan.	(n = 145)	The intervention included the standard diabetes education program and an additional self-efficacy program to promote self-management	RCT	There was a significant improvement in the outcome measures, including self-care activities, compared to the control group. Additionally, there were fewer cases of hospitalization or emergency room visits in the intervention group.	Nurses can utilize the knowledge obtained from this study to implement self-efficacy programs and standard diabetes education to enhance diabetes self-management.

## 3.2 Emerging Themes

### 3.2.1 Improved diabetes self-management in older patients

The articles emphasize the crucial role of nurses in providing education to patients with DM. The Aging, Community, and Health Research Unit-Community Partnership Program (ACHRU-CPP) implemented by Yous et al. (2023) involved home and phone visits, system navigation support, care coordination caregiver support, and group wellness sessions delivered by a nurse, nutritionist, or a dietitian. This program had a positive impact on older adults with diabetes, including improved knowledge in managing diabetes and chronic conditions, enhanced physical activity and function, improved eating habits, opportunities for socialization, and connection to community resources to support self-management [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### 3.2.2 Behavioral and Lifestyle Interventions promote positive changes in diabetes self-management:

Wong et al. (2019), Kim et al. (2011), and Markle-Reid et al., 2017) highlight the effectiveness of behavioral interventions delivered through telephone counseling by nurses. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### **3.2.3 Home visits enable individualized patient care and empower self-management:**

Home visits are crucial in community-based nursing programs for elderly patients with diabetes. This is because elderly patients may have mobility or transportation challenges, thus hindering their access to health facilities, which may negatively impact their self-care. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### **3.2.4 Culturally tailored interventions promote diabetes self-management within minority groups:**

Culturally tailored multimodal behavioral interventions delivered by registered nurses and community health workers can effectively assist ethnic/linguistic minority groups in managing diabetes in the community (Yous et al., 2023; Diriba, 2020; Kim et al., 2015).

### **3.2.5 Interdisciplinary collaborations play a positive role in supporting diabetes self-management:**

Community-based self-care programs, supported by interdisciplinary partnerships involving registered nurses, social workers, and community workers, can enhance self-efficacy, quality of life, activities of daily living, and medication adherence and reduce healthcare service utilization (Markle-Reid et al., 2017; Kim et al., 2016 and Kim et al., 2015).

### **3.2.6 Long-term follow-up and continuity of care ensure sustainable support for diabetic patients:**

Studies such as Kim et al. (2011) and Wu et al. (2011) highlight the significance of follow-up and continuity of care in managing diabetes. These interventions involved home telemonitoring of blood pressure and self-efficacy programs, and they showed positive outcomes in terms of improved self-care activities and reduced hospitalizations or emergency room visits.

## Conclusion

The findings emphasize the crucial role of nurses in providing education, support, and personalized care to patients with DM. Nurse-led education and support, including home visits, have shown positive impacts on diabetes self-management, knowledge improvement, physical activity promotion, and healthy eating habits. Behavioral interventions, such as telephone counseling and self-monitoring, have effectively promoted healthy behaviors and supported self-management practices. Culturally tailored interventions and interdisciplinary partnerships have successfully assisted diverse populations in managing diabetes in the community. Long-term follow-up and continuity of care have also been highlighted as important factors in improving self-care and reducing hospitalizations. In conclusion, the articles provide evidence that community-based nursing programs offer valuable support for patients with DM, addressing their educational, behavioral, cultural, and long-term care needs. Therefore, the findings answer the research question by demonstrating the effectiveness and importance of community-based nursing programs in supporting patients with DM.

香港醫療論文輔導中心 HKMTGC 版權所有 All Rights Reserved

## Chapter four: DISCUSSION

### 4.1 Introduction

The previous chapter presented the summary of the ten articles identified in the search to answer the research question, "**How can patients with diabetes mellitus be supported by a community-based nursing program?**" The chapter also presented the results and themes that emerged from the thematic analysis of the articles. In this chapter, there will be a detailed discussion of the themes, exploring their meaning and implications as well as their relevance to the research question. Additionally, the chapter will explore the potential benefits of the findings for patients, their families, healthcare professionals, and organizations. Furthermore, the chapter will address the relationship between the themes and the ideas that emerged in the background literature. Ethical implications, limitations of the study, the need for further research, and the researcher's personal insights and growth will also be discussed.

### 4.2 Discussion of Themes

#### 4.2.1 Improved diabetes self-management in older patients:

One of the themes that emerged is the role of nurse-led education and support in facilitating self-management for patients with diabetes in the community, and it holds a significant meaning in the context of community-based nursing programs. The studies highlighted the positive impact of nurse-led interventions, including home and phone visits, care coordination, and education on various aspects of diabetes management, such as knowledge improvement, physical activity enhancement, and a proper diet (Yous et al., 2023; Diriba, 2022; Bulucu-Büyüksoy & Karataş, 2020; Kim et al., 2016; Kim et al., 2015; Crowley et al., 2013; Wu et al., 2011). These studies highlighted the importance of community-based, patient-centered interventions to enhance diabetes self-management in older adults.

level education interventions delivered by a team of healthcare professionals, including registered nurses, registered nurse case managers, trained and certified social worker, community health workers, or dietitian are effective in promoting self-management among patients with diabetes mellitus (Yous et al., 2023; Diriba, 2022; Bulucu-Büyüksöy & Karataş, 2020; Wong et al., 2019; Markle-Reid et al., 2017; Kim et al., 2016; Kim et al., 2015; Crowley et al., 2013; Kim et al., 2011 and Wu et al., 2011). This shows that different healthcare professionals can effectively deliver educational interventions for diabetes self-management in the community [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The Code of Ethics and Professional Conduct for Nurses in HK encourages nurses to collaborate with others in initiating and supporting actions to meet the health and social needs of the public (Nursing Council of Hong Kong, 2015). Thus, nurses can work closely with community health workers to jointly develop and implement educational programs, support groups, and interventions aimed at promoting self-management.

#### **4.2.2 Behavioral and Lifestyle Interventions promote positive changes in diabetes self-management:**

Another significant theme that emerged is the effectiveness of behavioral and lifestyle interventions in community settings. This encompasses a range of strategies aimed at empowering patients to adopt and maintain healthy behaviors, such as regular physical activity, balanced nutrition, and stress management. The studies by Wong et al. (2019), Kim et al. (2011), and Markle-Reid et al. (2017) emphasize the importance of teaching patients self-care for health maintenance, including medication adherence, blood pressure-related education, building patients' self-care confidence and setting goals and caregiver engagement. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

#### **4.2.3 Home visits enable individualized patient care and empower self-management:**

Home visit is a crucial component of community-based nursing programs for elderly patients with diabetes, as supported by the articles reviewed. Home visits entail regularly visiting elderly patients at their homes to conduct relevant assessments, and provide patient education and training on various aspects of diabetes self-management (Yous et al., 2023; Bulucu-Büyüksoy & Karataş, 2020; Wong et al., 2019 and Markle-Reid et al., 2017). The significance of home visits lies in their ability to consider the unique needs of patients, encourage treatment adherence, promote self-care practices, and increase patient autonomy. Other literature also recommends home visit programs as they have been found to improve the quality of life, self-management, and HbA1c levels of older adults with diabetes (Han et al., 2017).

[REDACTED]

#### **4.2.4 Culturally tailored interventions promote diabetes self-management within minority groups:**



Culturally tailored interventions also emerged as an important theme in the discussion. This theme highlights the need for cultural sensitivity and responsiveness in designing interventions that effectively support minority groups. In the article by Yous et al. (2023), one of the emerging themes related to the patient's experience with ACHRU-CPP was that ethnic/cultural differences were addressed through personal sessions, enabling improved diabetes self-management. This finding suggests that tailoring interventions to align with patients' cultural identities and experiences can enhance their engagement, understanding, and ability to manage their diabetes effectively.

#### **4.2.5 Long-term follow-up and continuity of care ensure sustainable support for diabetic patients:**

Lastly, the theme of long-term follow-up and continuity of care emphasizes the role of ongoing support and consistent healthcare provision through community-based programs for patients with diabetes mellitus. Managing diabetes is a complex and lifelong journey that requires continuous monitoring, education, and intervention (Carpenter et al., 2018). Kim et al. (2011) and Wu et al. (2011) highlighted the positive outcomes associated with long-term follow-up and continuity of care interventions. These interventions involved home telemonitoring of blood pressure and self-efficacy programs, respectively. The findings of these studies indicated that such interventions contributed to improved self-care activities, reduced hospitalizations, and decreased emergency room visits among patients with diabetes. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

#### **4.3 Implications for Practice:**

The articles critiqued show the importance of implementing community-based person-centered interventions and collaborative care delivery (Yous et al., 2023; Diriba, 2022; Kim et al., 2016; Crowley et al., 2013; Wu et al., 2011). Nurses can use these findings in their nursing practice to promote and advocate for community-based programs that

focus on diabetes self-management education and support for older adults. The articles also emphasized the role of collaborative efforts among nurses, community health workers, social workers, case managers, and dietitians. The interdisciplinary team can use the findings to develop and deliver educational interventions that enhance self-management practices among elderly patients with diabetes. The educational intervention may entail proper insulin administration, healthy eating habits, physical activity, medication adherence, and blood glucose monitoring, and it can be delivered through home visits, training in community spaces, telemonitoring, and telephone counseling. Thus, nurses can collaborate with the interdisciplinary team to schedule visits with elderly diabetes patients to provide education on self-management practices, assess their health status, and refer them to resources and appropriate services.

The research suggests that community-based interventions can improve the quality of life, self-efficacy, activities of daily living, and medication adherence and reduce healthcare service utilization (Markle-Reid et al., 2017; Wong et al., 2019). This provides nurses with a framework to design effective nursing interventions that focus on promoting healthy eating habits, physical activity, medication adherence, and stress management techniques for older adults with diabetes. This will enable nurses to support self-management and connect older adults with available health and social services.

[REDACTED]



rehospitalizations, and better utilization of healthcare resources (Markle-Reid et al., 2017). Thus, organizations implementing such programs can expect a more effective and sustainable use of healthcare resources, ultimately benefiting both patients and the healthcare system as a whole.

#### **4.5. Need for Further Research:**

While this study provides valuable insights into supporting patients with diabetes mellitus through community-based nursing programs, further research is needed. Specifically, there is a need for longer-term studies to evaluate the sustainability of interventions and their impact on long-term health outcomes (Wu et al., 2011). Further research could also be conducted using qualitative research studies to gain comprehensive insights into the experiences and perspectives of patients receiving community support. Qualitative research studies would allow a deeper understanding of the factors influencing patients' engagement in self-management and their perceptions of the support provided by community nurses. Additionally, exploring the cost-effectiveness of these programs and assessing the experiences and perspectives of patients, families, and healthcare professionals could provide a more comprehensive understanding of their effectiveness.

#### **4.5 Ethical Implications:**

From an ethical perspective, the findings of this study have crucial implications for both organizational and clinical practice. Patients place their trust in healthcare professionals and organizations to provide them with the highest standard of care, particularly when it comes to managing a chronic condition like diabetes mellitus. Clinical teams and organizations have a legal and ethical responsibility to deliver care that is guided by knowledge, policies, and skills (Thomas et al., 2015).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

This critical review mostly utilized randomized controlled trials (RCTs) as a source of evidence. RCTs are ranked at the highest level of the hierarchy as they are designed to

be unbiased with fewer systematic errors, hence providing high-quality evidence (Burns et al., 2011). Thus, since this research predominantly relied on RCT as a source of evidence, the findings carry greater weight and credibility in guiding clinical practice and decision-making.

#### **4.5 Limitations of the Study:**

The researcher encountered challenges in finding articles that specifically addressed all the PICO components. There were limited numbers of studies that explicitly investigated the exact effectiveness of community-based nursing programs in promoting self-management for elderly patients with diabetes mellitus. For example, some studies focused on community-based nursing programs but did not specifically target elderly patients or diabetes mellitus. Other studies addressed self-management for diabetes mellitus but did not specifically evaluate the effectiveness of community-based nursing programs. Another limitation relates to the fact that this research was the first time the researcher conducted a comprehensive literature review. I acknowledge the limited experience and challenges in selecting appropriate articles and conducting a proper critique.

#### **Conclusion:**

This research shed light on important aspects of care delivery and the role of healthcare professionals in improving patient outcomes through community-based interventions. As per the findings, community-based nursing programs are effective in promoting self-management among elderly patients with diabetes mellitus. The use of nurse-led education and support, behavioral and lifestyle interventions, home visits, culturally tailored interventions, and long-term follow-up and continuity of care has been found to improve knowledge, self-care activities, glycemic control, and quality of life and reduce healthcare service utilization. As a researcher, this study has deepened my understanding of the complexity of diabetes management and the critical role that community-based nursing programs play in supporting patients. I have gained valuable insights into the diverse strategies and interventions that can be employed to address the unique needs of patients with diabetes. The next chapter will present the overall conclusion and recommendations.

## Chapter five: CONCLUSION AND RECOMMENDATIONS

Chapter four delved into a detailed discussion of the identified themes, their meaning, and implications. Chapter five will focus on drawing broad conclusions from the dissertation, focusing on the identified themes. The chapter will outline the desired outcomes resulting from the research as well as the feasibility and practicality of the ideas presented in the research. Lastly, the chapter will discuss the prioritization of recommendations based on their potential impact.

### 5.1 Conclusion:

Diabetes mellitus, a significant lifestyle disease, affects an estimated 10% (approximately 700,000 people) of Hong Kong's total population. Moreover, global statistics indicate a steady rise in the number of individuals living with diabetes, reaching approximately 422 million worldwide. Despite the high prevalence of diabetes, studies such as those conducted by Liu et al. (2022) shows that blood glucose control is still suboptimal. A survey conducted by the Hospital Authority (2021) compared the rate of diabetes comprehensive assessment in three countries, including HK, UK, and Europe. The survey evaluated a range of tests, including HbA1c, LDL, serum creatinine, urine albumin, and smoking status. Compared to other regions, HK had a significantly lower assessment completion rate compared to other countries. As a recommendation, the Hospital Authority (2021) advocates increasing preventive measures at the community level to reduce the rapid increase in the incidence of diabetes mellitus

[REDACTED]

The central focus of this dissertation was to answer the research question, “**How can patients with DM be supported by community-based nursing program?**” Prior research revealed that community health centers in Hong Kong play a significant role in

promoting diabetes self-management through health education and follow-up care. The Health Bureau (2023) has recognized the rapidly aging population and has emphasized the need to shift toward prevention-oriented, family-centric care. Community nursing services in Hong Kong play a crucial role in providing individualized care at home, reducing hospitalization frequency, and improving patients' quality of life. These services encompass community psychiatric nursing, general and specialized nursing care, and community-based rehabilitation programs, contributing to improved chronic disease management in the community. With the high prevalence of diabetes and the increase in the number of older persons with poorly controlled diabetes, there is a need for a multidisciplinary team approach to effectively enhance diabetes self-management at the community level. Nurses have the expertise, skills, and knowledge to provide support, education, and guidance to patients to empower them to take control of their health. Nurse-led interventions at the community level, such as home and phone visits, care coordination, and education on various aspects of diabetes management, such as knowledge improvement, physical activity enhancement, and a proper diet, are likely to enhance diabetes self-management among older persons.

Through a critical literature review, ten relevant articles were selected and critically appraised using a critical appraisal skill program to identify their strengths and weaknesses. The thematic analysis revealed the effectiveness of community nurse-led programs such as home visits, phone calls, education, and care coordination in promoting self-management among elderly patients with diabetes mellitus

[REDACTED]

their ability to manage diabetes effectively (Bulucu-Büyüksoy & Karataş, 2020; Markle-

Reid et al., 2017 and Kim et al., 2015). Long-term follow-up and continuity of care interventions contribute to improved self-care activities and reduced hospitalizations among patients with diabetes (Kim et al., 2011; Wu et al., 2011). Overall, all the ten articles that were evaluated suggest that community-based nursing programs play a crucial role in empowering patients to adopt healthy behaviors and promote self-care practices.

## 5.2 Recommendations

After a comprehensive literature review, this dissertation supports the integration of community nurse-led programs as a key strategy to promote diabetes self-management among elderly patients with diabetes mellitus. As earlier highlighted, Hong Kong is facing various healthcare challenges characterized by a rapidly aging population and increasing prevalence of chronic diseases, which calls for a new shift from a focus on treatment to prevention. In Hong Kong, the primary healthcare system plays a vital role in providing accessible, community-based healthcare services to the population. Primary healthcare (PHC) acts as a gateway to specialized care by managing, maintaining, and enhancing the population's health at the community level (Chow et al., 2023). The development of District Health Centres (DHCs) is one of the ways in which the primary healthcare system is adapting to meet the changing demands of communities and improve healthcare accessibility. Therefore, integrating community nurse-led programs within the framework of PHC and DHCs could be a practical and effective approach to supporting diabetes self-management among elderly patients.

In fact, the Hospital Authority has already established Community Nursing Services (CNS) as part of the chronic disease management program. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]

Another recommendation is the designing and implementation of culturally tailored interventions to cater to the diverse population in Hong Kong. Additionally, there should be development of interventions to ensure the long-term sustainability of the program. This may involve developing evidence-based guidelines and protocols, establishing mechanisms for regular follow-up and continuous support, and fostering partnerships between the government, community healthcare facilities, community healthcare staff, patients, and families. Also, there should be public awareness and education campaigns discussing the benefits of community nurse-led programs to reduce stigma, increase patient acceptance of the program, and encourage greater utilization of available healthcare services.

Community nurse-led programs can be implemented through a step-by-step approach. Firstly, further research should be conducted to assess the effectiveness of community nurse-led programs for diabetes self-management among elderly patients in Hong Kong. This research should involve rigorous evaluation of existing programs and interventions availed through the Hospital Authority and the Department of Health. Secondly, If the

research findings support the intervention, the evidence will be presented to the key stakeholders, including policymakers and healthcare professionals, to ensure buy-ins. The third step will be to promote collaboration between different healthcare providers and community organizations to create a seamless system of care. There will be development of tailored interventions to address diabetes self-management at the community level. It is also important to ensure that nurses are adequately trained to deliver effective diabetes self-management education and support. Launching public awareness campaigns should also be prioritized to increase the acceptance and utilization of community nurse-led programs.

香港醫療論文輔導中心 HKMTGC版權所有 All Rights Reserved

## References

- Bulucu-Büyüksoy, G. D., & Karataş, N. (2020). The Effect of Care Provided at Home by Public Health Nurse on Control of Type II Diabetes Mellitus. *Florence Nightingale journal of nursing*, 28(3), 287–298. <https://doi.org/10.5152/FNJN.2020.19092>
- Burns, P. B., Rohrich, R. J., & Chung, K. C. (2011). The levels of evidence and their role in evidence-based medicine. *Plastic and reconstructive surgery*, 128(1), 305–310. <https://doi.org/10.1097/PRS.0b013e318219c171>
- Carpenter, R., DiChiacchio, T., & Barker, K. (2018). Interventions for self-management of type 2 diabetes: An integrative review. *International journal of nursing sciences*, 6(1), 70–91. <https://doi.org/10.1016/j.ijnss.2018.12.002>
- Centre for Health Protection (2023) *Diabetes Mellitus*. Available at: <https://www.chp.gov.hk/en/healthtopics/content/25/59.html#:~:text=Diabetes%20mellitus%20is%20a%20chronic,deficiency%2C%20insulin%20resistance%20or%20both.>
- Centre for Health Protection. (2023, April 26). *Diabetes Mellitus*. <https://www.chp.gov.hk/en/healthtopics/content/25/59.html>
- Chan, W. Y., Fung, I. M., & Chan, E. (2017). Universal Health Coverage through Community Nursing Services: China vs. Hong Kong. *Revista latino-americana de enfermagem*, 25, e2838. <https://doi.org/10.1590/1518-8345.1664.2838>
- Chan, W. Y., Fung, I. M., & Chan, E. (2017). Universal Health Coverage through Community Nursing Services: China vs. Hong Kong. *Revista Latino-Americana de Enfermagem*, 25(0). <https://doi.org/10.1590/1518-8345.1664.2838>
- Chow, C. L. J., Shum, J. S., Hui, K. T. P., Lin, A. F. C., & Chu, E. C. (2023). Optimizing Primary Healthcare in Hong Kong: Strategies for the Successful Integration of Radiology Services. *Cureus*, 15(4), e37022. <https://doi.org/10.7759/cureus.37022>
- Crowley, M. J., Bosworth, H. B., Coffman, C. J., Lindquist, J. H., Neary, A. M., Harris, A. C., Datta, S. K., Granger, B. B., Pereira, K., Dolor, R. J., & Edelman, D. (2013). Tailored Case Management for Diabetes and Hypertension (TEACH-DM) in a community

population: study design and baseline sample characteristics. *Contemporary clinical trials*, 36(1), 298–306. <https://doi.org/10.1016/j.cct.2013.07.010>

Diriba, D. (2022). IDF21-0155 Effectiveness of a nurse-led community-based self-management program among adults with diabetes-family dyads in Ethiopia. *Diabetes Research and Clinical Practice*, 186, 109478. <https://doi.org/10.1016/j.diabres.2022.109478>

Guo, Z., Liu, J., Zeng, H., He, G., Ren, X., & Guo, J. (2019). Feasibility and efficacy of nurse-led team management intervention for improving the self-management of type 2 diabetes patients in a Chinese community: a randomized controlled trial. *Patient preference and adherence*, 13, 1353–1362. <https://doi.org/10.2147/PPA.S213645>

Han, L., Ma, Y., Wei, S., Tian, J., Yang, X., Shen, X., Zhang, J., & Shi, Y. (2017). Are home visits an effective method for diabetes management? A quantitative systematic review and meta-analysis. *Journal of diabetes investigation*, 8(5), 701–708. <https://doi.org/10.1111/jdi.12630>

Health Bureau (2023) *The Healthcare Challenges in Hong Kong*. Available at: <https://www.primaryhealthcare.gov.hk/en/blueprint-2/>.

Health Bureau. (2023, March 24). The Healthcare Challenges in Hong Kong: Ageing Population and Increase in Chronic Disease Prevalence. <https://www.primaryhealthcare.gov.hk/en/blueprint-2/>

HealthyHK (2021) *Diabetes Mellitus*. Available at: [https://www.healthyhk.gov.hk/phsweb/en/chart\\_detail/27/](https://www.healthyhk.gov.hk/phsweb/en/chart_detail/27/).

Hospital Authority (2021) *Hospital Authority Diabetes Mellitus Care Report 2019/20*. Available at: [https://www.ha.org.hk/haho/ho/icp/HA\\_DM\\_Care\\_Report1920\\_en\\_txt.pdf](https://www.ha.org.hk/haho/ho/icp/HA_DM_Care_Report1920_en_txt.pdf).

Hospital Authority (2023) *Smart Patient Website - Diabetes Mellitus*. Available at: <https://www21.ha.org.hk/smartpatient/SPW/en-us/Disease-Information/Disease/?guid=c73a0386-fe66-42eb-a979-7619ac8359da#:~:text=Currently%2C%20there%20are%20some%20700%2C000,one%20people%20with%20diabetes%20mellitus.>

Hospital Authority. (n.d.). *Hospital Authority : Vision, mission, values*.

[https://www.ha.org.hk/visitor/ha\\_visitor\\_index.asp?Content\\_ID=10009&Lang=ENG](https://www.ha.org.hk/visitor/ha_visitor_index.asp?Content_ID=10009&Lang=ENG)

Jarvis, J. C., Skinner, T., Carey, M. J., & Davies, M. J. (2010). How can structured self-management patient education improve outcomes in people with type 2 diabetes?

*Diabetes, Obesity and Metabolism*, 12(1), 12–19. <https://doi.org/10.1111/j.1463-1326.2009.01098.x>

Kim, K. B., Kim, M. T., Lee, H. B., Nguyen, T., Bone, L. R., & Levine, D. (2016).

Community Health Workers Versus Nurses as Counselors or Case Managers in a Self-Help Diabetes Management Program. *American journal of public health*, 106(6), 1052–1058. <https://doi.org/10.2105/AJPH.2016.303054>

Kim, M. T., Han, H. R., Hedlin, H., Kim, J., Song, H. J., Kim, K. B., & Hill, M. N. (2011).

Teletransmitted monitoring of blood pressure and bilingual nurse counseling-sustained improvements in blood pressure control during 12 months in hypertensive Korean Americans. *Journal of clinical hypertension (Greenwich, Conn.)*, 13(8), 605–612.

<https://doi.org/10.1111/j.1751-7176.2011.00479.x>

Kim, M. T., Kim, K. B., Huh, B., Nguyen, T., Han, H. R., Bone, L. R., & Levine, D. (2015).

The Effect of a Community-Based Self-Help Intervention: Korean Americans With Type 2 Diabetes. *American journal of preventive medicine*, 49(5), 726–737.

<https://doi.org/10.1016/j.amepre.2015.04.033>

Lau I. T. (2017). A Clinical Practice Guideline to Guide a System Approach to Diabetes Care in Hong Kong. *Diabetes & metabolism journal*, 41(2), 81–88.

<https://doi.org/10.4093/dmj.2017.41.2.81>

Li, T. J., Zhou, J., Ma, J. J., Luo, H. Y., & Ye, X. M. (2022). What are the self-

management experiences of the elderly with diabetes? A systematic review of qualitative research. *World journal of clinical cases*, 10(4), 1226–1241.

<https://doi.org/10.12998/wjcc.v10.i4.1226>

Lin, X., Xu, Y., Pan, X., Xu, J., Ding, Y., Sun, X., Song, X., Ren, Y., & Shan, P. F. (2020).

Global, regional, and national burden and trend of diabetes in 195 countries and

territories: an analysis from 1990 to 2025. *Scientific reports*, 10(1), 14790.

<https://doi.org/10.1038/s41598-020-71908-9>

Liu, Y., Jiang, J., You, W., Gong, D., Ma, X., Wu, M., & Li, F. (2022). Exploring facilitators and barriers to self-management engagement of Chinese people with type 2 diabetes mellitus and poor blood glucose control: a descriptive qualitative study. *BMJ Endocrine Disorders*, 22(1). <https://doi.org/10.1186/s12902-022-01214-0>

Long, H., French, D. P., & Brooks, J. (2020). Optimising the value of the critical appraisal skills programme (CASP) tool for quality appraisal in qualitative evidence synthesis. *Research Methods in Medicine & Health Sciences*, 1(1), 31–42. <https://doi.org/10.1177/2632084320947559>

Markle-Reid, M., Ploeg, J., Fraser, K. D., Fisher, K., Bartholomew, A., Griffith, L., Miklavcic, J. J., Gafni, A., Thabane, L., & Upshur, R. E. (2017). Community Program Improves Quality of Life and Self-Management in Older Adults with Diabetes Mellitus and Comorbidity. *Journal of the American Geriatrics Society*, 66(2), 263–273. <https://doi.org/10.1111/jgs.15173>

Noyes, J., Booth, A., Moore, G., Flemming, K., Tunçalp, Ö., & Shakibazadeh, E. (2019). Synthesising quantitative and qualitative evidence to inform guidelines on complex interventions: clarifying the purposes, designs and outlining some methods. *BMJ Global Health*, 4(Suppl 1), e000893. <https://doi.org/10.1136/bmjgh-2018-000893>

Polit, D. & Beck, C. T. (2021). *Nursing research: Generating and assessing evidence for nursing practice* (11th ed). Philadelphia, PA: Lippincott, Williams, & Wilkins.

The Nursing Council of Hong Kong. (2015). *Code of Ethics and Professional Conduct for Nurses in Hong Kong*.

[https://www.nchk.org.hk/en/code\\_of\\_conduct\\_and\\_practice/code\\_of\\_professional\\_conduct\\_and\\_code\\_of\\_ethics\\_for\\_nurses\\_in\\_hong\\_kong/index.html](https://www.nchk.org.hk/en/code_of_conduct_and_practice/code_of_professional_conduct_and_code_of_ethics_for_nurses_in_hong_kong/index.html)

Thomas, B., Tachble, A., Peiris, D., Malhi, R., Godlovitch, G., & Lin, Y. (2015). Making literature reviews more ethical: a researcher and health sciences librarian collaborative process. *Future science OA*, 1(4), FSO78. <https://doi.org/10.4155/fso.15.78>

Wong, A. K. C., Wong, F. K. Y., & Chang, K. (2019). Effectiveness of a community-based self-care promoting program for community-dwelling older adults: a randomized controlled trial. *Age And Ageing*, 48(6), 852–858. <https://doi.org/10.1093/ageing/afz095>

World Health Organization: WHO (2019) “Diabetes,” *www.who.int* [Preprint]. Available at: [https://www.who.int/health-topics/diabetes#tab=tab\\_1](https://www.who.int/health-topics/diabetes#tab=tab_1).

Wu, S., Lee, M., Liang, S., Lu, Y., Wang, T. J., & Tung, H. H. (2011). Effectiveness of a self-efficacy program for persons with diabetes: A randomized controlled trial. *Nursing & Health Sciences*, no. <https://doi.org/10.1111/j.1442-2018.2011.00625.x>

Yous, M., Ganann, R., Ploeg, J., Markle-Reid, M., Northwood, M., Fisher, K., Valaitis, R., Chambers, T., Montelpare, W., Légaré, F., Beleno, R., Gaudet, G., Giacometti, L., Lively, D., Lindsay, C., Morrison, A., & Tang, F. (2023). Older adults' experiences and perceived impacts of the Aging, Community and Health Research Unit-Community Partnership Program (ACHRU-CPP) for diabetes self-management in Canada: a qualitative descriptive study. *BMJ Open*, 13(4), e068694. <https://doi.org/10.1136/bmjopen-2022-068694>

香港醫療論文輔導中心 HKMTG 版權所有 All Rights Reserved

## Appendix

1. Yous, M., Ganann, R., Ploeg, J., Markle-Reid, M., Northwood, M., Fisher, K., Valaitis, R., Chambers, T., Montelpare, W., Légaré, F., Beleno, R., Gaudet, G., Giacometti, L., Lively, D., Lindsay, C., Morrison, A., & Tang, F. (2023). Older adults' experiences and perceived impacts of the Aging, Community, and Health Research Unit-Community Partnership Program (ACHRU-CPP) for diabetes self-management in Canada: a qualitative descriptive study. *BMJ Open*, 13(4), e068694.  
<https://doi.org/10.1136/bmjopen-2022-068694>

<b>Elements influencing the believability of the research</b>	
Writing style	The writing style of the article is clear and concise, with a coherent flow of information.
Author	The article lists the authors' names along with their affiliations, which provide insight into their positions and qualifications. It is evident that the authors come from diverse backgrounds with expertise in primary care, qualitative research, aging, community-based interventions, and diabetes research. The involvement of patient and public research partners in study design and interpretation enhances the credibility of the research.
Report title	The title is clear and reflects the main focus of the study. It effectively conveys that the research explores older adults' experiences and perceived impacts of the ACHRU-CPP for diabetes self-management.
Abstract	The abstract provides a comprehensive summary of the study, covering the objectives, design, setting, participants, methods, and key findings. It concisely presents the research problem and the impact of the ACHRU-CPP program on older adults with diabetes and other chronic conditions.
<b>Elements influencing the robustness of the research</b>	
Statement of the phenomenon of interest	The phenomenon of interest, which is the experiences and perceived impacts of the ACHRU-CPP for diabetes self-management in older adults, is clearly identified in the article's title, abstract, and introduction.
Purpose/significance of the study	The purpose of the study is clearly identified in the introduction, and the significance of the research is highlighted in addressing the complex needs of older adults with diabetes and multiple chronic conditions.
Theoretical framework	The article does not have a theoretical framework. A well-defined theoretical framework can provide a foundation for the study, guide data collection and analysis, and support the interpretation of findings.
Methods and philosophical underpinnings	The research article clearly identifies the philosophical approach as a qualitative descriptive design. The choice of qualitative descriptive design is appropriate for exploring the experiences and perceived impacts of the ACHRU-CPP from the perspectives of older adults with diabetes and other chronic conditions. The qualitative approach allows for an in-depth exploration of participants' lived experiences and understanding of the intervention.



Sample	The sampling method used was purposive sampling (maximum variation purposive sampling), which is appropriate for capturing diverse perspectives and experiences. The sample size consisted of 45 community-living older adults aged 65 years or older with diabetes and at least one other chronic condition, which is appropriate for a qualitative study seeking in-depth insights and experiences from participants.
Ethical considerations	The article mentions that institutional ethics approval was obtained from multiple ethics boards. Also, the participants gave informed consent to participate in the study.
Data collection/data analysis	The data collection strategy is described and involves conducting semi-structured postintervention telephone interviews with trained research assistants. Thematic analysis, specifically Braun and Clarke's experiential thematic analysis framework, was used to generate themes from the interview data.
Rigour	The researcher mentions that Lincoln and Guba's validation criteria were applied in the study to enhance rigour. Triangulation was used through team meetings, and an audit trail was kept to ensure dependability and confirmability of findings.
Findings/Discussion	The main findings of the study include positive experiences and perceived impacts of the program reported by older adults. Older adults mentioned in-depth dialogue with "professional friends" during in-person home and virtual visits, socializing with others who have similar health problems during group wellness sessions, receiving person-centered care from a team of knowledgeable providers, ongoing contact with providers to avoid feeling alone, and the need to address ethnic and cultural differences through personal sessions. The findings also revealed that older adults experienced improved diabetes self-management behaviors, such as proactive steps to prevent complications and better control of blood pressure. They also reported added connections to health and social support services that were helpful in managing their conditions effectively.
Conclusions/implications and recommendations	The study reveals that the ACHRU-CPP had a positive impact on supporting diabetes self-management in older adults. The findings have implications for improving the care of older adults with diabetes and multiple chronic conditions. The article suggests that integrated care delivery models that leverage community partnerships can better meet the complex health and social needs of older adults with diabetes.
Reference	The article has accurately referenced the sources mentioned throughout the paper.

<https://doi.org/10.1016/j.diabres.2022.109478>

<b>Elements influencing the believability of the research</b>	
Writing style	The article is well-written, using concise language and proper grammar.
Author	The author, Diriba, is affiliated with The Hong Kong Polytechnic University School of Nursing, which shows she has a background in the field of nursing and knowledge about diabetes management.
Report title	The title, "Effectiveness of a nurse-led community-based self-management program among adults with diabetes-family dyads in Ethiopia," is clear and gives an overall idea of what the study is about.
Abstract	There is an abstract provided in the feasibility and pilot study, but the author did not provide an abstract in the clinical trial. The lack of an abstract in a study may limit readers' ability to quickly grasp the research's purpose, methods, findings, and relevance. This forces the reader to read the entire article to fully understand its content.
<b>Elements influencing the robustness of the research</b>	
Literature review	The article provides a clear background on the suboptimal management of diabetes in Africa, highlighting challenges such as lack of understanding about local foods, misconceptions, and poor healthcare systems. It emphasizes the importance of diabetes self-management and family support.
Theoretical framework	The article identifies the conceptual framework guiding the DSMES program, which is the social cognitive theory.
Aims/objectives/research questions/hypotheses	The study aimed to examine the preliminary effects of a nurse-led community-based DSMES program on diabetes self-management behavior and family support behavior among adults with type 2 diabetes in Ethiopia.
Sample	The target population is adults with type 2 diabetes and their family dyads in Ethiopia, and the sample was selected using convenience sampling ( $n = 76$ ). The intervention was delivered in the community by nurses.
Ethical considerations	The author did not mention any ethical considerations which can compromise the validity and credibility of the research. Ethical considerations are critical when conducting research involving human participants. Researchers are expected to obtain informed consent from participants, protect their autonomy and confidentiality, minimize the risk of harm, and seek ethical approval from relevant research ethics committees or institutional review boards.
Methodology	The research design used in the study is a pretest-posttest 2-arm parallel-group pilot randomized controlled trial.

	The data collection instruments used to assess self-management behavior and family support behavior were the summary of diabetes self-care activities (SDSCA) and the diabetes family behavior checklist,
Data Analysis	The type of data analysis conducted in this study was primarily descriptive statistics. The sociodemographic characteristics of the participants were analyzed using descriptive statistics to examine the baseline data of the sample. Mean scores were calculated to assess self-management behavior and family support behavior before and after the intervention. Intention-to-treat analysis was applied to handle missing data, and independent samples t-tests were used to compare the outcomes of the intervention and control groups.
Main findings/ results	The self-management practice increased significantly ( $p < 0.001$ ). Also, family support for diabetes management significantly increased after the intervention ( $t=8.01$ , $p<0.001$ )
Discussion	The discussion of the study highlights the effectiveness of the nurse-led community-based diabetes self-management education and support program among adults with diabetes-family dyads in Ethiopia. There were significant improvements in both self-management practice and family support among the intervention group compared to the control group.
Reference	The author references the trial protocol published elsewhere and does not include the references in the clinical trial.

<b>Elements influencing the believability of the research</b>	
Writing style	The article is well-written, concise, and grammatically correct.
Author	The researcher's qualifications and positions are mentioned, which indicate knowledge in the field of public health nursing and diabetes management.
Report title	The title is clear and effectively conveys the focus of the study, which is to investigate the effect of home care provided by public health nurses on the control of type II diabetes mellitus.
Abstract	The abstract offers a clear overview of the article. It provides information about the research problem, the sample size and methodology used, and the findings.
<b>Elements influencing the robustness of the research</b>	
Literature review	There is a literature review in the introduction section of the article.
Theoretical framework	The study does not have a theoretical framework.
Aims/objectives/research questions/hypotheses	The study aims to determine the effect of home care services provided by public health nurses for patients with type II diabetes on HbA <sub>1c</sub> levels and investigate the patients' opinions on blood glucose follow-up, drug use, nutrition, and exercise. The research question and hypotheses are clearly stated. The hypothesis (H1-1) states that the care given by the public health nurse at home affects the decrease in the HbA <sub>1c</sub> value of the patients.
Sample	patients with type II diabetes who had been treated at the internal medicine clinic of the hospital between 11 <sup>th</sup> and 30 <sup>th</sup> April 2016 and met the inclusion criteria. A convenience sampling method was used to select the sample ( $n= 48$ ). The authors conducted a power analysis to determine the sample size
Ethical considerations	The research followed ethical guidelines by obtaining informed consent from participants, obtaining ethical approval, and potentially ensuring confidentiality and protection from harm.
Methodology	The study design is clearly identified as a mixed-method approach consisting of both quantitative and qualitative aspects. The quantitative aspect involves a pre and post-test application with a control group, while the qualitative aspect involves a semi-structured interviewing technique. Data was collected through a data collection form for the physical examination, a pre-post measurement form for HbA <sub>1c</sub> levels, and a qualitative interview form for assessing behaviors on nutrition, exercise, drug use, and monitoring of blood glucose.

	Nonetheless, there is no comprehensive information on the development, reliability, and validity of the data collection instruments.
Data Analysis	Quantitative data were analyzed using several statistical tests, including the chi-square test, dependent samples t-test, Wilcoxon t-test, and Mann–Whitney U test. These tests are appropriate for analyzing the differences between groups and identifying significant changes over time. The significance level was set at $p < 0.05$ , indicating a statistically significant finding.
Main findings/ results	The study found that the HbA1c value of patients with diabetes in the experiment group decreased by 0.75% (95% CI: -1.75% to -0.47%, $p=0.002$ ). There was a statistically significant difference between the first and the last measurements ( $p<0.001$ ). However, there was no statistically significant difference between the first and the last HbA1c values of the control group ( $p>0.05$ ). The H1-1 hypothesis was supported, as there was a 0.75% decrease in HbA1c value in the experiment group.
Discussion	The discussion highlights that care provided by a nurse at home can effectively decrease patients' HbA1c levels and positively affect diabetes control. The main findings are linked back to the literature review, as the researchers refer to previous studies that have shown similar decreases in HbA1c levels in patients who received nursing care, like the current study. The authors recommend an effective role to be given to nurses and home visits and the inclusion of a multidisciplinary team.
Reference	All the sources cited in the study are accurately referenced,

<b>Elements influencing the believability of the research</b>	
Writing style	The writing style of the research article is clear, concise, and grammatically correct.
Author	The authors' qualifications show knowledge in the field of nursing and community-based care for older adults. They are affiliated with the School of Nursing at The Hong Kong Polytechnic University.
Report title	The title of the research article is clear, accurate, and unambiguous. It effectively conveys the main focus of the study.
Abstract	The abstract provides a clear overview of the study, covering essential aspects such as the research problem, sample, methodology, findings, and recommendations.
<b>Elements influencing the robustness of the research</b>	
Literature review	The literature review is incorporated within the introduction.
Theoretical framework	The article mentions a theoretical framework based on Bronfenbrenner's ecological theory, social cognitive theory by Bandura, and Gittel's relational coordination theory. These theories are used to design the intervention components and guide the implementation of the community-based self-care promoting program.
Aims/objectives/research questions/hypotheses	The researchers aim to determine whether the intervention program can improve self-efficacy, QoL, daily living activities, and medication adherence while reducing health service utilization among community-dwelling older adults.
Sample	The target population was older adults aged 60 or over and cognitively competent to perform self-care behaviors. The sample ( $n = 457$ ) was selected using a randomized controlled trial design conducted in multiple districts in Hong Kong.
Ethical considerations	The study reports obtaining ethical approval from the ethics sub-committee of the study university.
Methodology	The research design is clearly identified as a randomized controlled trial conducted over 22 months. The data collection instrument included questionnaires used to measure self-efficacy, QoL, IADL, medication adherence, and health service utilization. The authors noted that the questionnaires used had satisfactory validity and reliability. The intervention was implemented by a health-social team led by a registered nurse.
Data Analysis	The type of data analysis conducted in this research article was generalised estimating equations (GEEs). GEEs allow for the analysis of between-group effects, within-group (time) effects, and interaction (group $\times$ time) effects. The authors used linear link functions for continuous outcomes (e.g., self-efficacy, QoL, ADL, IADL, and medication adherence) and

	Poisson link function for count data (e.g., health service utilization outcome).
Main findings/ results	<p>The intervention group, which received a three-month program led by a health-social care team, showed significantly higher scores in self-efficacy, ADL, IADL, and QoL at T2 (immediate post-intervention) compared to T1 (baseline). The program also significantly improved the mental component of QoL, medication adherence and reduced the total number of health service attendances compared to the control group.</p> <p>The study contributes to the evidence base for implementing similar interventions to enhance the well-being and health outcomes of older adults in community settings.</p>
Discussion	<p>The discussion section of the article does a good job of linking the findings back to the existing literature. The authors acknowledge the previous research on the concept of aging in place and highlight the importance of supporting community-dwelling older adults to prevent adverse effects that can lead to dependent living. They recommend the use of e-health applications to replace some of the human contact time and testing its cost-effectiveness.</p>
Reference	<p>The references provided in the article are appropriately referenced, citing relevant literature throughout the discussion.</p>



<https://doi.org/10.1111/igs.15173>

<b>Elements influencing the believability of the research</b>	
Writing style	The writing style in the article is clear, concise, and grammatically correct. The information is well-organized, and the article follows a standard structure with clear headings.
Author	The authors are listed with their relevant qualifications and positions that indicate their expertise in the field. This suggests that they possess the knowledge required to conduct and present research on the topic.
Report title	The title of the article is clear, accurate, and unambiguous.
Abstract	The abstract provides a clear overview of the study, covering essential aspects such as the research problem, sample, methodology, results, and conclusion.
<b>Elements influencing the robustness of the research</b>	
Literature review	The authors included comprehensive background literature in the introduction.
Theoretical framework	There is no theoretical framework used in this article.
Aims/objectives/research questions/hypotheses	The researchers aimed to assess the effectiveness of the 6-month community-based intervention with the usual care on self-management, self-efficacy, quality of life, depressive symptoms, anxiety, and healthcare costs in older adults with T2DM and two more comorbidities.
Sample	The target population was community-dwelling older adults aged 65 or older with type 2 diabetes mellitus (T2DM) and two or more comorbidities. The sample consisted of 159 participants who were randomized into an intervention group (n=80) and a control group (n=79). The sample size was determined through power calculations, considering factors such as effect size, alpha level, and attrition rate.
Ethical considerations	The study was conducted in accordance with the Tri-Council Policy Statement, Ethical Conduct for Research Involving Humans, and institutional ethics approval was obtained. The participants were fully informed about the nature of the research, as it is mentioned that written informed consent was obtained from participants before study involvement.



Methodology	<p>The research design is a multicenter, single-blind, parallel, pragmatic, randomized controlled trial.</p> <p>The data gathering instrument used in the study was the 12-item Medical Outcomes Study Short-Form Health Survey (SF-12), which consisted of two health-related quality of life (HRQoL) measures: the Physical Component Summary (PCS) and the Mental Component Summary (MCS).</p>
Data Analysis	<p>The researchers used Analysis of Covariance (ANCOVA) to test the differences in outcome variables between the intervention and control groups at six months. ANCOVA is a suitable statistical method when you want to compare groups while controlling for the effect of a covariate.</p> <p>Additionally, the researchers performed multiple imputations to handle missing data patterns in the randomized controlled trial (RCT). Multiple imputation is a recommended method for addressing missing data, and it helps reduce the potential bias caused by missing observations.</p>
Main findings/ results	<p>The intervention group showed significant improvement in the SF-12 general health subdomain, MCS, and SDSCA (self-management behavior) compared to the control group. There was no statistically significant difference in the primary outcome measure, PCS, between the intervention and control groups. The intervention group experienced a greater decline in depressive symptoms (CESD-10) compared to the control group, although this difference was statistically significant only in the multiple imputation analysis.</p>
Discussion	<p>The findings of the study suggest that the community-based self-care promoting program supported by a health-social partnership framework had positive effects on various aspects of health-related quality of life and self-management behavior for older adults with Type 2 diabetes. The intervention showed significant improvements in mental health) and self-management behavior and a potential positive impact on depressive symptoms.</p> <p>The authors discuss the significance of the findings in managing type 2 diabetes in community-dwelling older adults and the potential value of a coordinated interdisciplinary and intersectoral team in managing the condition. They highlight the need for future research to involve larger pragmatic trials, examine implementation issues, explore service use changes within the context of the intervention, and assess intervention sustainability.</p>
Reference	<p>All the journals and books used throughout the article have been accurately referenced in the reference list.</p>

<https://doi.org/10.2105/AJPH.2016.303054>

<b>Elements influencing the believability of the research</b>	
Writing style	The article is well-written and concise, and the language used is clear and free from jargon.
Author	The authors of the research article appear to be well-qualified for the study. Their education qualifications and areas of practice indicate expertise in the field of healthcare and diabetes management.
Report title	The title of the report is clear, accurate, and unambiguous. It effectively conveys the main focus of the study, which is comparing the effectiveness of community health workers and nurses as counselors or case managers in a self-help diabetes management program.
Abstract	The abstract provides a clear overview of the study. It includes essential elements, including objectives, methods, results, and conclusions.
<b>Elements influencing the robustness of the research</b>	
Literature review	There is a literature review in the introduction, which provides a relevant context of the study.
Theoretical framework	The researchers used a theoretical framework to guide their research. The framework used was Reinforcing and Enabling Constructs in Education/Environmental Diagnosis and Evaluation (PRECEDE)–Policy, Regulatory, and Organizational Constructs in Educational and Environmental Development (PROCEED) model. This model, as explained by the researchers, enables the authors to easily connect the predisposing, enabling, and reinforcing factors to measurable health outcomes. They also used RE-AIM (reach, efficacy and effectiveness, adoption, implementation, and maintenance) model.
Aims/objectives/research questions/hypotheses	The objective of the study was to confirm the effectiveness of community health workers' involvement as counselors or case managers in a self-help diabetes management program among Korean Americans with uncontrolled type 2 diabetes.
Sample	The target population for the study was clearly identified as Korean Americans aged 35 to 80 years with type 2 diabetes who were able to speak and read Korean. The sample was selected using a multi-stage screening process. Initially, potential participants underwent random blood glucose tests. A sample of 250 were enrolled and randomly assigned to the intervention (n = 120) or control group (n = 130). The sample size of 250 participants seems appropriate for a randomized controlled trial, especially considering the focus on a specific ethnic population.

Ethical considerations	The researchers obtained written consent from the participants, and the research was approved by Johns Hopkins Medical Institutional review board.
Methodology	The research design was identified as an open-label, randomized controlled trial. The data collection instrument was a combination of physiological and psychobehavioral health outcome measures, which were collected at baseline and at various time points (3, 6, 9, and 12 months). The intervention included didactic education or training for 12 hours, followed by monthly telephone counseling by a team of registered nurses and community health workers.
Data Analysis	Physiological and psychobehavioral health outcomes were measured at baseline and multiple time points during the study. The research team used statistical analyses to compare these outcomes among different groups (community health worker-counseled, RN-counseled, and control groups). Data were analyzed using regression analyses (linear and logistic) to assess changes in hemoglobin A1C, blood glucose levels, self-efficacy for diabetes, and quality of life scores over time.
Main findings/ results	The intervention group, especially those counseled by community health workers, showed significant reductions in hemoglobin A1C levels compared to the control group. Both community health worker-counseled, and RN-counseled groups experienced improvements in self-efficacy for diabetes over time, while the control group's improvements were not statistically significant. The community health worker-counseled group demonstrated greater improvement in quality of life scores compared to the RN-counseled and control groups.
Discussion	The researchers conclude that community-based participatory research is effective for managing and controlling chronic conditions like type 2 diabetes, particularly in ethnic/linguistic minority communities. They highlight the crucial role of community health workers as the primary contact with study participants, motivators, coaches, and trusted friends of the patients. The study highlights the feasibility and value of using community health workers as counselors or case managers, especially in communities with limited access to bilingual healthcare providers.
Reference	There was accurate and appropriate referencing which enhanced the credibility and validity of the research study.

<https://doi.org/10.1016/j.amepre.2015.04.033>

<b>Elements influencing the believability of the research</b>	
Writing style	The writing style of the article is clear, concise, and well-organized. The sentences are coherent, and the information is presented in a logical manner.
Author	The researchers are affiliates with reputable institutions, and their qualifications and positions indicate a high degree of knowledge and expertise in the field of nursing, public health, and medicine, making them well-suited to conduct and contribute to the study.
Report title	The title is clear, and it provides a concise overview of the focus of the study.
Abstract	The provided abstract offers a clear overview of the study. It gives a brief introduction, design, setting, sample, intervention, main outcome measures, results, and conclusions.
<b>Elements influencing the robustness of the research</b>	
Literature review	The article has included previous research studies to support the rationale for the study.
Theoretical framework	The study identifies a theoretical framework based on the Predisposing, Reinforcing, and Enabling Constructs in Education/Environmental Diagnosis and Evaluation (PRECEDE-PROCEED) model, incorporating elements from the self-help model.
Aims/objectives/research questions/hypotheses	The article purposed to evaluate the effectiveness of a community-based, culturally tailored, multimodal behavioral intervention program in an ethnic/linguistic minority group with type 2 diabetes.
Sample	The target population was first-generation Korean American immigrants with diabetes. The eligibility criteria are broad to improve external validity. As per the researchers' reports that 105 participants remained in the intervention group and 104 in the control group, yielding a retention rate of 83.6%. The intervention was delivered by a team of bilingual nurses/community health workers.
Ethical considerations	The article notes that all the intervention protocols were approved by the Johns Hopkins Medicine IRB.
Methodology	The study used a community-based, open-label, randomized controlled trial (RCT) with a waitlist control group. Some of the data collection tools used in the study were: Spot check and for A1c Now+ test kit for glucose level assessment, demographic questionnaire, diabetes Knowledge Test (DKT) to assess participants' diabetes knowledge, Stanford Chronic Disease Self-Efficacy scale to

	<p>measure self-efficacy in diabetes management, patient Health Questionnaire 9 (PHQ-9K) to measure depression, and diabetes Quality of Life Measure (DQOL) to assess the impact of diabetes on the quality of life.</p> <p>The instruments used in the study were appropriate for assessing the different aspects of diabetes management, self-efficacy, knowledge, quality of life,</p>
Data Analysis	<p>The study employed parametric tests (e.g., t-tests, chi-square tests) to compare group differences at baseline and used the mixed model of panel data to analyze changes in primary outcomes over time. The statistical analysis was appropriate for the study design and research questions.</p>
Main findings/ results	<p>Community-based participatory research was effective in managing and controlling chronic conditions, specifically type 2 diabetes, in an ethnic/linguistic minority community. The intervention group showed statistically significant reductions in the A1c level, a critical clinical parameter of diabetic control, compared to the control group. The intervention group showed statistically significant improvements in DM-related self-efficacy, DM knowledge, quality of life, and attitudes toward DM compared to the control group.</p>
Discussion	<p>The discussion section highlights that the SHIP-DM intervention is effective in improving diabetes control among linguistically isolated ethnic minority immigrants. The researchers compared the magnitude of A1c reduction in the intervention group to other clinical trials, emphasizing that the reductions were substantial and clinically significant. They also discuss how the intervention led to improvements in cardiovascular health indicators, such as blood glucose, total cholesterol, and LDL levels, which can reduce DM-related morbidity and mortality.</p>
Reference	<p>There is proper citation for all sources used throughout the study. This adds to the credibility and validity of the research findings.</p>

<b>Elements influencing the believability of the research</b>	
Writing style	The article is well-written, with a concise and clear writing style.
Author	The research was conducted by a team of professionals affiliated with reputable institutions, and they have expertise in health services research, endocrinology, general internal medicine, biostatistics, nursing, and related fields.
Report title	The article title is clear and precise, highlighting the main focus of the study.
Abstract	The abstract offers a clear and comprehensive overview of the study.
<b>Elements influencing the robustness of the research</b>	
Literature review	The introduction section discusses relevant evidence supporting glycemic control and blood pressure control and cites various studies demonstrating the benefits of these interventions.
Theoretical framework	There is no specific theoretical framework, but the authors indicate that the intervention is based on guidelines from the American Diabetes Association (ADA) and the Seventh Joint National Committee (JNC-VII), which could be considered the basis for the theoretical framework.
Aims/objectives/research questions/hypotheses	The primary objective is to evaluate the effectiveness of a telephone-delivered, nurse-administered behavioral intervention among community patients with poorly-controlled diabetes and comorbid hypertension.
Sample	The target population is patients with poorly-controlled type 2 diabetes and comorbid hypertension. The sample was selected from nine community practices in the Duke Primary Care Research Consortium ( $n = 377$ ). Randomly allocated to the intervention group ( $n = 193$ ) and control group ( $n = 184$ ).
Ethical considerations	
Methodology	<p>The research design was a randomized controlled trial (RCT) with a 2-arm design.</p> <p>The intervention was delivered through telephone calls, and the nurse interventionist used a computer database with scripts and tailoring algorithms to ensure the standardization of tailored information.</p> <p>Staff responsible for data collection remained blinded to patient randomization assignments which helped to reduce bias and ensure the integrity of the study.</p> <p>The baseline study survey collected demographic, clinical, socioeconomic, and psychosocial data. Primary outcomes</p>

	(HbA1c and BP) were measured at baseline, 6, 12, and 24 months, and they also assessed secondary outcomes (self-efficacy, self-reported medication adherence, and exercise)
Data Analysis	The primary outcomes, HbA1c, and blood pressure (BP) control, were analyzed using generalized estimating equation (GEE) methods. The secondary outcomes, which were continuous and longitudinal, were analyzed using linear mixed-effects models. The statistical analyses used in this study appear to be appropriate, given the nature of the data.
Main findings/ results	The main findings of the study indicated that the intervention group, which received the tailored nurse-delivered behavioral intervention for diabetes and hypertension management, showed statistically significant reductions in HbA1c levels compared to the control group. Both groups had elevated baseline levels of HbA1c, indicating poorly controlled diabetes, but the intervention group experienced a significant improvement in glycemic control.
Discussion	Nurse-delivered, tailored behavioral interventions are effective in improving glycemic control for patients with poorly-controlled type 2 diabetes and hypertension. Thus, there is a potential benefit of using tailored interventions delivered via telephone, especially for patients with limited access to healthcare facilities. Telephone-delivered interventions can improve patient adherence to treatment plans and offer a cost-effective means of providing healthcare support to a broader population.
Reference	There is proper and accurate referencing throughout the article.



<https://doi.org/10.1111/j.1751-7176.2011.00479.x>

<b>Elements influencing the believability of the research</b>	
Writing style	The article is well-written, concise, and grammatically correct.
Author	The researchers are affiliated with reputable institutions, and their qualifications show a great degree of knowledge and expertise in the field of nursing and public health, adding credibility to the study.
Report title	The title of the article is clear and accurate.
Abstract	The abstract provides the purpose of the paper, sample, methodology, findings, and a conclusion.
<b>Elements influencing the robustness of the research</b>	
Literature review	The authors did not include a comprehensive literature review, but still, they provided some prior research evidence to support their research.
Theoretical framework	There is no theoretical framework provided.
Aims/objectives/research questions/hypotheses	The study aims to determine the sustainability of intervention effects in lowering blood pressure obtained through a short-term education program using home telemonitoring of blood pressure and regular counseling by bilingual nurses.
Sample	The target population for the study is middle-aged (40–64 years) Korean immigrants with hypertension. The sample size was 359 participants, who were recruited through ethnic churches, grocery stores, and ethnic newspaper advertisements. The participants were randomly assigned to either the more-intensive counseling (biweekly counseling) or less-intensive counseling (monthly counseling) groups.
Ethical considerations	The participants provided written informed consent, and the study was approved by the institutional review board.
Methodology	The research design used in the study is a community-based clinical trial. BP control was defined as home-measured BP below 135/85 mmHg and 140/85 mmHg for diabetic patients. For data collection, participants measured their BP using the A&D UA-767 device. They used 12 items designed by the National Heart Lung Blood Institute and 14 items based on literature to assess HBP knowledge. Questionnaires, Likert-type items, and Kim Depression Scale for Korean Americans were also used to collect information.
Data Analysis	The data analysis involved the use of mixed-effects models to examine the rate of change over time in blood pressure (mean SBP and mean DBP) and psychosocial outcomes (HBP knowledge, HBP beliefs, HBP self-efficacy, depression



	measured using KDSKA, and medication adherence measured using the Hill-Bone Compliance Scale).
Main findings/ results	<p>The study demonstrated that individualized counseling by bilingual nurses based on teletransmitted monitoring of home blood pressure (BP) was effective in sustaining BP control achieved through a series of group HBP education programs during 12 months in hypertensive Korean Americans.</p> <p>Participants in the more-counseled group showed greater improvements in BP and psychosocial outcomes (such as decreased depressive symptoms) compared to participants in the less-counseled group. Both groups showed improvements in adherence to HBP treatment recommendations, including medication-taking, a low-salt diet, and keeping appointments with the doctor.</p>
Discussion	The results are consistent with previous research, indicating that individualized counseling, along with home BP monitoring, can lead to sustained improvements in BP control.
Reference	The sources are accurately referenced.

香港醫療論文輔導中心 HKMTGC 版權所有 All rights reserved

<b>Elements influencing the believability of the research</b>	
Writing style	The article is well-written, concise, and grammatically correct.
Author	All authors hold a Ph.D., indicating expertise in their respective areas, making them qualified to conduct research in the field of nursing and health science.
Report title	The title is clear and communicates the focus of the study.
Abstract	The abstract provides a clear overview of the study, summarizing the aim, participants, methodology, findings, and conclusion.
<b>Elements influencing the robustness of the research</b>	
Literature review	The literature review section provides relevant background information and context for the study. It highlights the prevalence and impact of diabetes, emphasizing the need for self-management in diabetes care. The review suggests that psychosocial problems are common among individuals with diabetes, and addressing self-efficacy can improve diabetes self-management.
Theoretical framework	The study uses Bandura's social cognitive theory, particularly the concept of self-efficacy, as the theoretical framework for the intervention program. The theory is described as a cognitive resource that enables individuals to adapt and cope with chronic illness.
Aims/objectives/research questions/hypotheses	The aim of the study is to evaluate the effectiveness of a self-efficacy enhancing intervention program for individuals with type 2 diabetes.
Sample	The sample was individuals with type 2 diabetes in Taiwan who were selected using a randomized controlled trial design. Statistical power calculation was conducted to determine the sample size ( $n = 145$ ).
Ethical considerations	This indicates that the study underwent a formal ethical review process as it was approved by the human research ethics committee of National Taipei College, Taiwan.
Methodology	The research design is randomized controlled trial. For data collection, the instruments used were the Chinese version of the Diabetes Management Self-Efficacy Scale (C-DMSES), the Chinese version of the Perceived Therapeutic Efficacy Scale (C-PTES), and the Chinese version of the Summary of Diabetes Self-Care Activities (SDSCA) scale. The instruments were designed to measure self-efficacy, outcome expectations, and self-care behavior related to diabetes management.
Data Analysis	The data analysis in the study was conducted using SPSS statistical software. The analysis methods included

	descriptive statistics. T-test, chi-squared, and ANOVA.
Main findings/ results	The intervention group in the study showed significant improvements in efficacy expectations, outcome expectations, and self-care behaviors compared to the control group. The intervention had a moderate effect on enhancing participants' confidence in managing type 2 diabetes and encouraging them to engage in diabetes self-care activities more frequently.
Discussion	The study demonstrates the effectiveness of the SEEIP in enhancing self-efficacy and self-care behavior in managing type 2 diabetes. It recommends incorporating self-efficacy-enhancing programs into clinical care for individuals with diabetes and suggests developing training programs for educators and healthcare professionals to improve their self-efficacy skills. The results align with existing research that shows the positive impact of diabetes education programs and self-management interventions on self-efficacy and diabetes management.
Reference	The references provided in the study are accurately referenced and relevant.

香港醫療論文輔導中心 HKMTGC 版權所有 All rights reserved