

## ฉบับนี้

# การทบทวนวรรณกรรมแบบกำหนดขอบเขตงานวิจัยเวชศาสตร์ผู้สูงอายุของแพทย์เวชศาสตร์ครอบครัว: “โครงการประเมินผลกระทบของแพทย์เวชศาสตร์ครอบครัวไทยในช่วง 2 ทศวรรษ (2534-2566)”

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### บทคัดย่อ

**ที่มา:** ประชากรโลกที่สูงอายุกำลังเพิ่มขึ้นอย่างรวดเร็ว ซึ่งส่งผลกระทบต่อระบบสาธารณสุข ประเทศไทยเป็นหนึ่งในประเทศที่มีประชากรสูงอายุเพิ่มขึ้นเร็วที่สุดในโลก ราชวิทยาลัยแพทย์เวชศาสตร์ครอบครัวแห่งประเทศไทยจึงได้บรรจุ “การดูแลผู้สูงอายุ” ไว้ในหลักสูตร การฝึกอบรมแพทย์ประจำบ้านสาขาเวชศาสตร์ครอบครัวขึ้น การศึกษาครั้งนี้มีวัตถุประสงค์ เพื่อ 1) จัดหมวดหมู่บุคลากร 12 หมวดหมู่ตามสมรรถนะวิชาชีพในหลักสูตรการฝึกอบรม ด้านเวชศาสตร์ครอบครัวผู้สูงอายุ 2) ระบุช่องว่างของงานวิจัยโดยอาศัยการทบทวนวรรณกรรมแบบกำหนดขอบเขต

### รูปแบบการวิจัย:

**วัสดุและวิธีการ:** วิเคราะห์บทความวิจัยที่เกี่ยวกับการดูแลผู้สูงอายุของแพทย์เวชศาสตร์ครอบครัวไทย จากฐานข้อมูล Famscholar (เปิดตัวเมื่อเดือนพฤษจิกายน พ.ศ. 2566 รวบรวมวิจัยจาก Scopus และ Thaiijo ในช่วงปี พ.ศ. 2534 ถึง พ.ศ. 2566

**ผลการศึกษา:** จากทั้งหมด 258 บทความ มี 83 บทความที่เข้าเกณฑ์การศึกษา ซึ่งได้มาจากการศึกษาข้อมูล Scopus จำนวน 46 บทความ (ร้อยละ 55) และ Thaiijo 37 บทความ (ร้อยละ 45) งานวิจัยส่วนใหญ่ (ร้อยละ 62.6) เป็นการศึกษาแบบตัดขวาง (cross-sectional) และมีร้อยละ 43 ของงานวิจัยทำการศึกษาเรื่องอื่นนอกเหนือจากสมรรถนะวิชาชีพ (EPAs) ในกลุ่มที่ศึกษาเกี่ยวกับ EPAs พบว่า มีการให้ความสนใจกับเครื่องมือเฉพาะทางด้านผู้สูงอายุมากที่สุด คิดเป็นร้อยละ 18 นอกจากนี้ความส่วนใหญ่บังมุ่งเน้นการศึกษาเกี่ยวกับภาวะสมองเสื่อม ภาวะซึมเศร้า ภาวะหล้ามและภาวะเปราะบาง อย่างไรก็ตามการศึกษาแบบพหุวิทยาการและการศึกษาเชิงทดลองนั้นพบได้ค่อนข้างน้อย และมักเป็นการศึกษาในระยะเวลาอันสั้น

**สรุป:** 医師เวชศาสตร์ครอบครัวไทยได้พิมพ์บทความวิจัยเกี่ยวกับการดูแลผู้สูงอายุเพิ่มขึ้นอย่างต่อเนื่อง การศึกษาแบบพหุวิทยาการและการศึกษาเชิงทดลองในระยะยาวยังคงเป็นหัวข้อที่น่าสนใจและควรได้รับการศึกษาเพิ่มเติม ราชวิทยาลัยเวชศาสตร์ครอบครัวแห่งประเทศไทยมีบทบาทสำคัญในการพัฒนาสิ่งเหล่านี้

**คำสำคัญ:** เวชศาสตร์ผู้สูงอายุ สมรรถนะวิชาชีพด้านทักษะพิสัย การทบทวนวรรณกรรมแบบกำหนดขอบเขต 医師เวชศาสตร์ครอบครัวไทย

## ORIGINAL ARTICLE

# A Scoping Review of the Geriatric Care Research Conducted by Family Physicians: “Two Decades of Thai Family Physician Impact Evaluation (TFPIME) Project (1991-2023)”

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**ABSTRACT**

**Background:** Global population aging is on the rise, impacting health systems. Thailand is one of the fastest-aging countries in the world. The Royal College of Family Physicians of Thailand includes 'The care of elderly adults' in the curriculum of residency training in family medicine in Thailand. This study aims to 1) categorize the included publications into twelve categories based on Entrustable Professional Activities (EPAs) in the Training Curriculum for the Certificate of Medical Proficiency in Geriatric Family Medicine, and 2) identify research gaps based on a Scoping Review.

**Design:** A Scoping Review

**Methods:** This study reviewed publications of Thai Family Physicians on Geriatric care issues. Researchers used the Famscholar database, a platform launched in November 2023 to gather publications from Scopus and Thaijo in 1991-2023

**Results:** Of 87 articles from 258 retrieved, eligible 83 were included. Of these, 46 articles (55%) and 37 articles (45%) were retrieved from Scopus and Thaijo databases, respectively. Most articles (62.6%) were cross-sectional studies. A majority of studies (43%) focused on areas other than EPAs. Among the studies that investigated EPAs, the most common focus was on geriatric-specific tools, accounting for 18% of the total. Most of the studies concentrate on dementia and depression, as well as falls and frailty. However, collaborative and intervention studies are relatively rare and often short-term in nature.

**Conclusions:** Thai Family Physicians have published an increasing number of research articles on geriatric care. Collaboration and long-term intervention studies remain an interesting topic that deserves further exploration. The Royal College of Family Physicians of Thailand (RCFPT) could play a significant role in promoting this area of research.

**Keywords:** geriatric, entrustable professional activities, scoping review, family physicians, Thailand

## Introduction

Global population aging is on the rise, with projections indicating a significant increase in older individuals globally. By 2030, one in six people will be 60 or older, and the 80 and above population is expected to triple by 2050. Initially observed in high-income countries, this shift is now affecting low- and middle-income nations. Aging is a complex process influenced by biological, social, and environmental factors, leading to conditions like hearing loss, arthritis, and dementia, which will have a significant impact on health systems. However, healthy aging is feasible through supportive environments, healthy behaviors, and quality healthcare access. Effective responses to population aging require addressing diverse needs and experiences, changing ageist attitudes, and adapting public health policies to global trends like globalization and urbanization. The UN Decade of Healthy Ageing (2021-2030) seeks to foster longer and healthier lives by changing how we think, feel, and act towards age and ageism, developing communities in ways that foster the abilities of older people, delivering person-centered integrated care and primary health services responsive to older people, and providing older people who need it with access to quality long-term care.<sup>1</sup>

Thailand is one of the fastest aging countries in the world, with 12 million elderly among its 67 million population. Since 2005, it has been termed an 'aged society' with 10% aged 60 or above, indicating societal progress but also new challenges. The ASEAN Center for Active Aging and Innovation (ACAI) reviews ASEAN policies on aging and anticipates Thailand becoming a "super-aged" society by 2036, showing a proactive stance in tackling aging issues.<sup>2,3</sup>

WONCA, the World Organization of Family Doctors, plays a role in aging and health within the scope of family medicine. Family physicians also known as general practitioners or primary care physicians, are often the first point of contact for individuals seeking medical care. Through a patient-centered and comprehensive approach, family physicians should be the primary medical care providers for older people covering the full spectrum of older people's care from health to end-stage frailty, including those in long-term care. WONCA special interest group on aging and health aims to improve elderly care in all coun-

tries by developing new primary care models for the elderly; advocating the implementation of undergraduate and postgraduate Family Physician training in elderly care; promoting research in elderly care in family practice; integrating care of elderly in primary health care services. The vision of WONCA SIG on aging and health is to see a universal gold standard of elderly care through collaboration with all interested disciplines and stakeholders involved.<sup>4</sup>

The Royal College of Family Physicians of Thailand (RCFPT) was established in 1999. 'The care of elderly adults' has been included in the curriculum of residency training in family medicine in Thailand as part of the knowledge and skills required for managing patients' diseases or conditions.<sup>5</sup> Additionally, Geriatric Family Medicine is now included in the Training Curriculum for the Certificate of Medical Proficiency in Geriatric Family Medicine.

In 2023, the RCFPT developed the "Two Decades of Thai Family Physician Impact Evaluation Project (TFPIME)". The purpose of the project is to provide evidence of the impact of family physicians on the healthcare system. The purposes of this scoping review are 1) to categorize the included publications into twelve categories based on Entrustable Professional Activities (EPAs) in the Training Curriculum for the Certificate of Medical Proficiency in Geriatric Family Medicine, and 2) to identify research gaps based on a scoping review.

## Methods

### Study design

A scoping review of the research literature was carried out to identify relevant publications addressing the topics in our review questions.

### Study selection

Two researchers, T.S. and V.R., independently evaluated the studies based on their titles and abstracts. The author utilized the Medical Council of Thailand database to identify Thai family physicians. When consensus was not reached, the full articles were reviewed. Any disagreements were resolved through discussions and consultations with a third researcher, R.T.

#### *Inclusion criteria:*

Original articles, integrative reviews, systematic reviews, and meta-analyses published in Thai

and English-language peer-reviewed journals were included.

*Exclusion criteria:*

1. The full-text article was unavailable.

### Search strategies and information sources

A total of 1565 members enrolled in the Thai Board of Family Medicine's Diploma program have been recorded in the 'Famscholar' database.<sup>6</sup> This platform, created by the Department of Family Medicine at Chiang Mai University, serves as an online academic research database. It gathers all publications by registered Thai family physicians from both Scopus and Thaijo databases. The online database was carried out using Famscholar in November 2023. A Python program was employed to identify and collect relevant research using the keywords specified in Table 1.

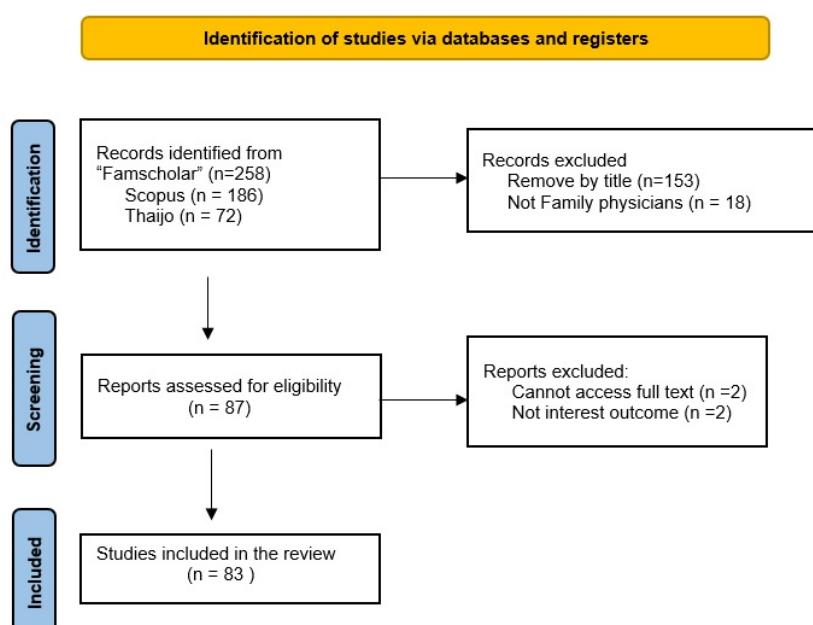
## Results

The search resulted in 258 articles. There were 186 and 72 from Scopus and Thaijo, respectively. 171 articles were excluded (153 due to irrelevant titles and 18 due to non-Thai Family Physician authors). 87 articles were sought for retrieval.

**Table 1.** Search terms used in the bibliometric analysis by using article Headings

Categories	Keywords
Geriatric care	Geriatric, elder*, aged, old*, aging, ageing, senior, retire*, frail*, dement*, fall*, polypharmacy, nursing, caregiver, senile, cogni*, delirium, sarcopenia, osteoporosis, PAINAD, instability, pressure sore, immobili*, insomnia

\*Symbol is used for truncation

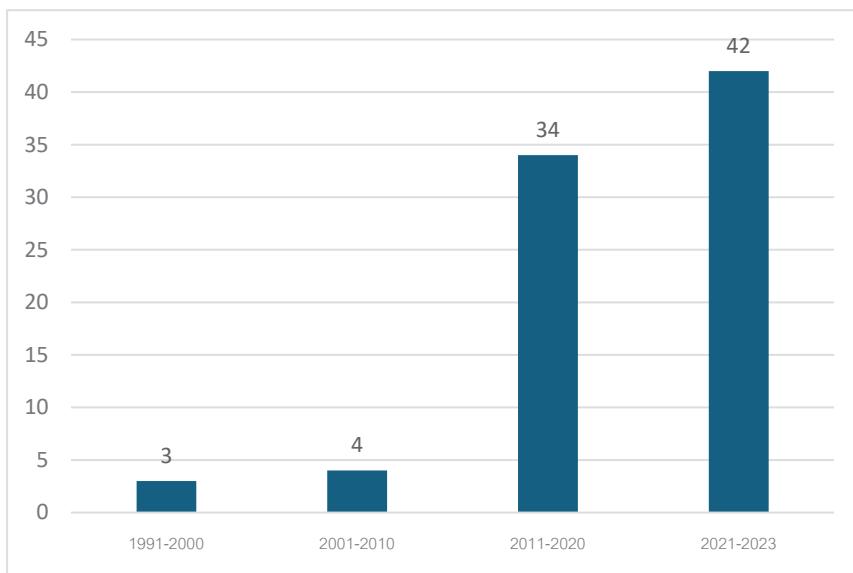


**Figure 1.** PRISMA flow diagram of the study selection

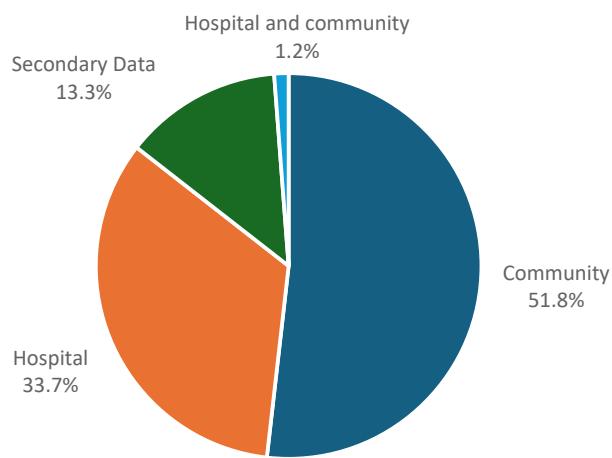
According to the inclusion and exclusion criteria, four articles were excluded and 83 studies were reviewed (Figure 1).

Forty-two articles were published from 2011 to 2020, and thirty-four were published from 2021 to 2023 (Figure 2). 46 articles were indexed on Scopus, and 37 articles were on Thaijo. The majority of the articles (52, or 62.6%) were cross-sectional studies. Six articles were randomized controlled trials (RCTs), six were non-RCTs, and three were cohort studies. There were only two studies each of qualitative studies and case-control studies, and one systematic review (Table 2).

Forty-three (51.8%) were collected from communities, twenty-eight articles (33.7%) were collected from the hospital, eleven articles (13.3%) were collected from secondary data, and one article (1.2%) was collected from both hospital and community, respectively. (Figure 3) The majority of studies (43%) focus on areas other than EPAs. Among the studies investigating EPAs, the most common focus was on the geriatric-specific tool, accounting for 18%, followed by safety-prescribed medications for 10.8%, care plans to improve physical functioning in patients



**Figure 2.** Number of articles by year of publication related to Geriatric care



**Figure 3.** Number of articles by research setting

with declined capacity and improve quality of life (7.2%), and caregiver (6%), respectively (Figure 4)

## Discussions

This study investigates research on geriatric care published by Thai family physicians. The most common study design employed was cross-sectional, representing 62.6% of all studies. Cross-sectional studies offer a valuable tool for exploring associations between variables. Moreover, cross-sectional studies are comparatively economical and require less time to conduct than other research methodologies. However, they have inherent limitations, such as the inability to establish cause-and-effect relationships and the potential for bias.<sup>7,8</sup> These studies primarily focus on evaluating the current health status of older adults, rather than examining the

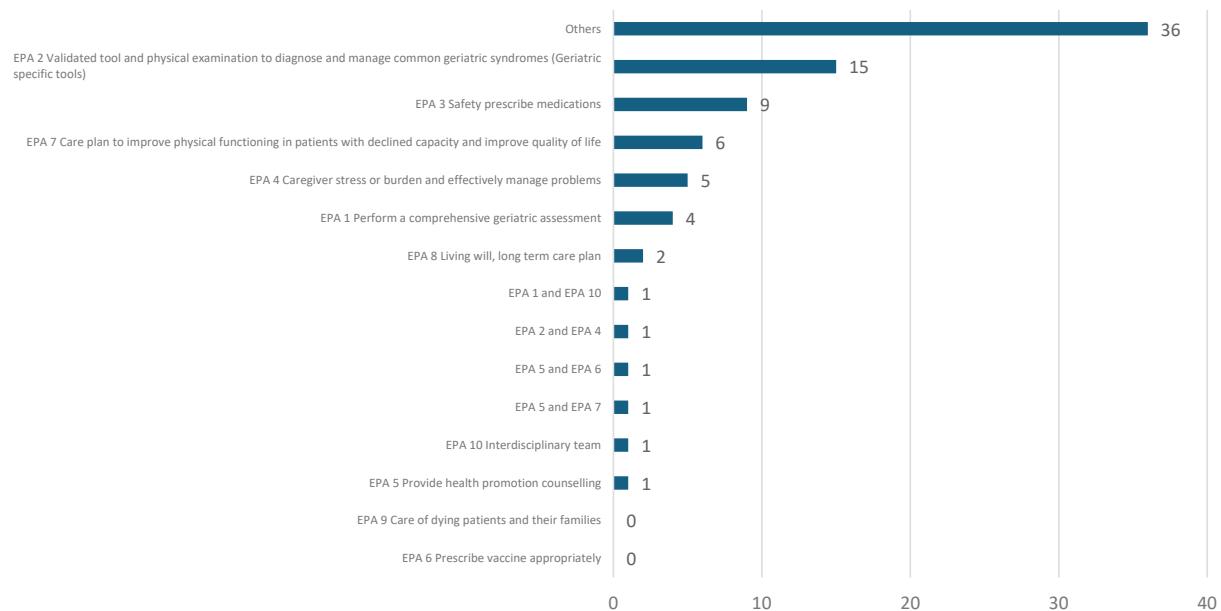
effectiveness of interventions. The majority of studies (51.8%) were collected from communities, followed by hospitals (33.7%), secondary data sources (13.3%), and one article (1.2%) collected from both hospitals and communities.

This study reveals a significant increase in geriatric care research since the year 2020. This growth experienced a particularly sharp rise between 2021 and 2023. This trend might be attributed to several factors. One potential explanation is the expanding role that family physicians play in caring for older adults.<sup>9</sup> Additionally, there is a growing expertise in geriatric care within family medicine training centers.<sup>10</sup> Finally, the introduction of the one-year Certificate in Geriatric Care training program by the RCFPT in 2022 might have also contributed to the rise in research.<sup>11</sup>

An analysis of geriatric care research focusing on Entrustable Professional Activities (EPAs) in the Training Curriculum for the Certificate of Medical Proficiency in Geriatric Family Medicine reveals two key findings. First, a majority of studies (43%) still focused on areas other than EPAs. Second, within the studies investigating EPAs, the most common focus was on geriatric-specific tools, accounting for 18% of the total studies. This focus on assessment reflects the desire to identify prevalent problems and diseases among older adults. Psychological issues, particularly depression and dementia, are frequently studied topics.<sup>12-28</sup> Additionally, research often explores areas like frailty and falls.<sup>29-37</sup> However, there is

**Table 2.** Article methods

Method	Scopus N = 46 (55%)	ThaiJo N = 37 (45%)	Total N = 83 (100%)
Observational			
Qualitative study	1	1	2 (2.4%)
Cross-sectional study	29	23	52 (62.6%)
Case-control study	0	2	2 (2.4%)
Cohort study	2	1	3 (3.6%)
Experimental			
Clinical trial (RCT)	3	3	6 (7.2%)
Clinical trial (non-RCT)	3	3	6 (7.2%)
Mixed method study	1	3	4 (4.8%)
Systematic review	1	0	1 (1.2%)
Meta-analysis	-	-	-
Other	6	1	7 (8.4%)

**Figure 3.** Number of articles by categories

still a lack of multidisciplinary collaborative research in geriatric care. Additionally, while intervention-based studies were found (seven studies, 8.4%), the majority tended to be short-term in nature.

Scoping reviews in the field of geriatrics are currently underdeveloped. There is a limited number of studies that focus on providing an overview of geriatric care. The majority of studies identified have concentrated on specific geriatric topics.

Long-term intervention studies are invaluable for understanding the sustained impact, delayed outcomes, and real-world applicability of interventions, making them essential for evidence-based decision-making.<sup>38</sup> In this study, There are two long-term intervention researches: Health promotion education for the elderly using structured self-health records (mixed methods) eval-

uated knowledge and attitudes on fall prevention after six months,<sup>39</sup> randomized controlled trial followed participants for 12 months after a simple home-based exercise program to assess its effectiveness in preventing falls among older adults.<sup>40</sup> In these two studies, knowledge, attitude, and adherence were significantly higher in the intervention group.

## Conclusions

Global population aging is on the rise, which will have a significant impact on health systems. Over the past two decades, Thai family physicians have published an increasing number of research articles on geriatric care. Multidisciplinary collaborative research and long-term intervention studies remain an under-explored area in geriatric care. Given this gap, the Royal College

of Family Physicians of Thailand (RCFPT) could play a significant role in promoting research in this area.

### Strengths and limitations

This scoping review retrieved articles from Famscholar, including Scopus and Thaijo. It is not linked to PubMed, a large global database. Therefore, this review shows only some of the research done by the Thai family physicians.

### Author contributions

R.T. conceived and designed the study. T.S. drafted and revised the main manuscript. T.S. and V.R. extracted, checked, analyzed, and interpreted the data, with T.S. serving as the guarantor of the study's data integrity. T.S. developed the discussion framework, while V.R. contributed to the research data, discussion, and manuscript review. R.T. and S.S. conceptualized the study, participated in discussions, and reviewed/edited the manuscript. All authors have read and approved the final manuscript.

### Disclosure

The authors declare that there are no conflicts of interest.

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