Systematic Review / Derleme

Examination of nursing theses on older adults in Turkey: A systematic review*

Türkiye'de yaşlı bireyler ile yapılan hemşirelik lisansüstü tezlerinin incelenmesi: Sistematik derleme

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ABSTRACT

Introduction and Aim: Nursing is a science that produces and uses scientific knowledge about older people. The objectives of this systematic review is to analyze the current stage of postgraduate theses in nursing science conducted with older adults in Turkish universities. **Materiel and Methods**: The theses completed in the science of nursing were reached by searching the database of the National Thesis Center of Council of Higher Education on 15-30 January 2022. The keywords "old people", "elderly" and "older people" were used in search. A total of 158 theses, the subject area of which was "Nursing'', in Turkey universities between the years 2012-2022 were included in systematic review. The narrative synthesis method was used to evaluate data obtained with data extraction tool. **Results**: It was determined that the most studied subjects with the elderly were quality of life (19.6%), falling (12.7%), and sleep (9.5%). It was determined that 44.3% of the theses' fields of specialization were nursing, 19.6% internal medicine nursing, 16.5% public health nursing. The thesis designs are 58.9% observational, 38.6% interventional, 3.2% methodological. Theses were mostly done in hospital (37.3%) and nursing home (34.8%). It was seen that the observational type of master's theses about the older people, whose focus was on quality of life, were in the majority. **Conclusions**: Studies with different subject areas and sample groups, mixed method and high level of evidence should be planned for olders adults. In Turkey, Ph.D. thesis studies on older adults should be increased and contribution to nursing science should be provided.

ÖZ

Giriş ve Amaç: Hemşirelik, yaşlılar hakkında bilimsel bilgi üreten ve kullanan bir bilimdir. Bu sistematik derlemenin amacı, Türkiye üniversitelerinde yaşlı bireylerle yapılan hemşirelik bilimi alanındaki lisansüstü tezlerinin mevcut aşamasını analiz etmektir. **Gereç ve Yöntem**: Hemşirelik bilimi alanında tamamlanan tezlere 15-30 Ocak 2022 tarihlerinde Yükseköğretim Kurulunun Ulusal Tez Merkezi veri tabanının taranmasıyla ulaşılmıştır. Taramada "yaşlı" anahtar kelimesi kullanılmıştır. Sistematik derlemeye Türkiye üniversitelerinde 2012-2022 yıllarında konu alanı "hemşirelik" olan 158 tez dahil edilmiştir. Veri çekme aracı ile elde edilen verilerin değerlendirilmesinde anlatı sentezi yöntemi kullanılmıştır. **Bulgular**: Yaşlılarla en çok çalışılan konuların yaşam kalitesi (%19,6), düşme (%12,7) ve uyku (%9,5) olduğu belirlenmiştir. Tezlerin uzmanlık alanlarının %44,3'ünün hemşirelik, %19,6'sının dahiliye hemşireliği, %16,5'inin halk sağlığı hemşireliği olduğu saptanmıştır. Tez tasarımları %58,9 gözlemsel, %38,6 girişimsel, %3,2 metodolojiktir. Tezler çoğunlukla hastanede (%37,3) ve huzurevinde (%34,8) yapılmıştır. Yaşlı bireylerle ilgili tanımlayıcı türde, konu odağı yaşam kalitesi olan yüksek lisans tezlerinin çoğunlukta olduğu görülmüştür. **Sonuç**: Yaşlı bireylere farklı konu alanları ve örneklem grupları içeren, karma yöntemle oluşturulan ve kanıt düzeyi yüksek çalışmalar planlanmalıdır. Türkiye'de yaşlı bireylerle ilgili doktora tez çalışmaları artırılmalı hemşirelik bilimine katkı sağlanmalıdır.

INTRODUCTION

The population aged 65 and over has increased by 22.5% in the last five years. The proportion of the older population in the total population increased to 8.2% in 2015, 9.5% in 2020, 9.7% in 2021, and 9.9 in 2022 (1). According to population projections, the proportion of the older population is estimated to be 11.0% in 2025 and 12.9% in 2030 (2). Therefore, older adults will have more diverse needs and problems. Older adults are at a high risk of multiple drug use (3), addiction, loneliness, falling (4), malnutrition, oral health problems (5), depression, confusion, and immobility (6), making them more fragile and vulnerable. Older adults need comprehensive physical, psychosocial and cultural care, support, and advocacy (7,8).

Nurses who care closely the older adults are important members of the healthcare team. They should approach older adults from a holistic perspective and fulfill their

roles of caregivers, supporters, advocates, and counselors (7). While performing those roles depending on their areas of expertise, nurses identify the needs of older adults, use their problem-solving skills and scientific knowledge to provide evidence-based care, develop new strategies when they cannot achieve their care goals, conduct scientific research, and share up-to-date information with their colleagues (8,9).

Nursing has nine specialties: internal medicine nursing, surgical diseases nursing, obstetrics and gynecology nursing, pediatric health and diseases nursing, nursing management, nursing education, psychiatry, and public health nursing (10). Nurses specializing in these areas deal with advanced age health from different perspectives. Research conducted by nurses is critical for older adults' quality of care. This study is planned to lead the studies in terms of summarizing the existing literature on the elderly, identifying the unstudied areas related to the elderly, and giving an idea about the issues that need to be done or can be done to the nurses, nursing students, and academicians who work or plan to work with elderly individuals. It will contribute to the inclusion of the missing topics in the literature about the elderly in nursing education. Nurses will raise awareness about the elderly and it will be easier to give holistic care to the elderly. However, there is no systematic review of graduate theses (master's and Ph.D.) on older adults. In this context, this study systematically reviewed the nursing science graduate theses on older adults published by Turkish universities between 2012 and 2022.

The following are research questions:

- What topics do the graduate theses address?

- Between what years were the graduate theses published the most?

- Under what nursing specialties were the graduate theses published?

- What methods do the graduate theses employ?

- What is the scope of application of the graduate theses?

METHOD

Research Type

This study is a systematic review reported according to the "Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)" editorial guide published in 2009 (11) (Table 1)

Screening Strategy

The National Thesis Center (12) database of the Council of Higher Education was searched between January 15 and January 30, 2022. The graduate theses were accessed from the National Thesis Center (12) database. The keywords were "old people", "elderly" and "older people". The sample consisted of 158 theses in the field of nursing published by Turkish universities between 2012 and 2022.

Identification and Selection of the Studies

The sample consisted of 158 nursing science graduate theses on older adults published by Turkish universities in Turkish or English. The theses were of observational, interventional, or methodological design. The keywords "elderly" "older people" and "old people" resulted in 148, 2, and 191 publications, respectively. One hundred and eighty-three publications were removed from the sample because they did not have full texts (n=5), did not focus on older adults (n=55), or were duplicates (n=123). Figure 1 shows the details of the selection process. Two researchers independently identified and selected the theses and reached a consensus. They first focused on the titles and then evaluated the publications according to their abstracts and full texts.

Inclusion Criteria

- In Turkey

- Accessible

- Recruiting older adults (>60 years)

- Nursing science

Exclusion Criteria

- Recruiting students

- Recruiting caregivers

- Recruiting healthcare professionals

- Not within the scope of "nursing" in the National Thesis Center database

Data Extraction

The researchers developed a data extraction tool to extract data. The data extraction tool allowed the researchers to obtain data on the subject focus, year, type, design, and application area of the theses.

Data Analysis

The data were analyzed using narrative synthesis, which was the method of choice because the theses

Table 1. PICOST definition

Components	Definition/Explanation
(**P:** Patient / Problem / Population)	Older adults
(**I**: Intervention)	Observational or intervention studies
(**C:** Comparison)	Studies identified as observational or interventional
(**O**: Outcomes)	Results of interest
(**S**: Study design)	Observational, intervention, qualitative, methodological, and meta-analysis studies
(**T:** Time/ Language)	Articles published in Turkish or English in the last ten years

differed from one another. The findings were presented using the narrative method because the theses had different designs. Data were presented as numbers and percentages.

RESULTS

Table 2 shows the subject focus, year, nursing specialization areas, type, design, and application areas of the theses. The titles, abstracts, and full texts of the theses were examined. The topics were sorted from most to least common. The five most studied subjects were quality of life (19.6%), falling (12.7%), sleep (9.5%), pain (7.6%), and depression (7.0%) (Table 2).

Two in five theses (39.9%) were published between 2012 and 2016, while three in five theses (60.1%) were published between 2017 and 2021. Over the years, nurses have written more and more theses on older adults. The theses were written in the field of nursing (44.3%), internal medicine nursing (19.6%), public health nursing (16.5%), gerontology nursing (1.58%), or geriatric nursing (1.58%). Seven in ten theses were master's theses (70.9%), while three in ten theses were Ph.D. theses (29.7%). One of the theses was written in the integrated nursing principles and management program. Most theses on older adults written by nurses are master's theses.

According to the classification table of epidemiological studies of the World Health Organization (WHO), the theses adopted observational, intervention, methodological, qualitative, and meta-analysis.13 The descriptive, correlational, cross-sectional, case-control, and cohort studies were included in the observational research design. The randomized controlled, field, and community studies were included in intervention research designs. The scale development and adaptation studies were evaluated as methodological research designs. In this context, the theses adopted observational (58.9%), intervention (38.6%), methodological (3.2%), qualitative (2.5%), or meta-analysis (0.6%) design. Of the observational studies, only one was a case-control, one

a meta-analysis, and four a prevalence study. One thesis used a combination of three design types (observational, methodological, and intervention). Five theses used two design types together.

The theses focused mostly on massage (19%), training (17%), or exercise (15%) (Figure 2). Although not shown on the Table, the massage consisted of interventions on the abdomen, back, hands, and feet, on which lavender, ginger, peppermint, black pepper, rosemary, sweet almond, or black cumin oil was used. The exercise included tai chi, walking, otago, kegel, and breathing exercises.

In terms of application areas, the theses were examined in four categories: community, hospital, nursing home, and literature. The "community" included family health centers, elderly support centers, rest homes, and community development centers. The "hospital" included polyclinics, clinics, intensive care units, and home health services. The "nursing home" included nursing homes and caring homes. The literature category included meta-analysis studies. The theses were in the community (31%), hospital (37.3%), nursing home (34.8%), and literature (0.6%) categories. Five theses were conducted in two different application areas (Table 2). The theses mostly recruited people with diabetes, hypertension, and heart disease (Figure 3).

DISCUSSION

This study systematically examined graduate theses published in Turkish universities between 2012 and 2022. Our results will help nurses improve older adults' health. Most of the theses focused on quality of life (19.6%), falling (12.7%), and sleep (9.5%). Doosti-Irani et al. (14) conducted a meta-analysis of older adults' quality of life and reported a negative correlation between age and quality of life. Güner and Ural (15) defined and systematically reviewed theses on the prevalence and risk of falls in older adults. They have found that one in three older adults living in the community and nursing homes falls and that more than

Table 2. Findings of theses

Features	Frequency	%
Subject Focus*		
Quality of Life	31	19.6
Fall	20	12.7
Sleep	15	9.5
Pain	12	7.6
Depression	11	7.0
Loneliness	9	5.7
Cognitive Function Levels	7	4.4
Constipation	6	3.8
Frailty	6	3.8
Foot Care	5	3.2
Drug Use Status	5	3.2
Life Satisfaction	5	3.2
Health Beliefs	5	3.2
Symptom States	5	3.2
Comfort	5	3.2
Addiction Level	5	3.2
Daily Living Activities	5	3.2
Anxiety State	5	3.2
Incontinence	4	2.5
Anger	4	2.5
Fluid Consumption	4	2.5
Physical Activity	4	2.5
Self Effectiveness Levels	4	2.5
Home Care	4	2.5
Spiritual Status	4	2.5
Healthy Lifestyle Behaviors	4	2.5
Malnutrition	3	1.9
Hope	3	1.9
Coping Situations	3	1.9
State of balance	3	1.9
Social support	3	1.9
Health Literacy	3	1.9
Self Care	2	1.3
Pressure Sore	2	1.3
Death Anxiety	2	1.3
Violence	2	1.3
Fatigue	2	1.3
Prosthesis Use Cases	2	1.3

Table 2. (Continue) Findings of theses

Features	Frequency	%
Subject Focus*		
Abuse and Neglect	2	1.3
Happiness Status	1	0.6
Self Respect	1	0.6
Disability	1	0.6
Cultural Status	1	0.6
Self Management	1	0.6
Health Perception	1	0.6
Ego State	1	0.6
Mouth	1	0.6
Year		
2012-2016	63	39.9
2017-2021	95	60.1
Nursing Specialization		
Nursing	70	44.3
Nursing Fundamentals	13	8.2
Internal Medicine Nursing	31	19.6
Surgical Diseases Nursing	8	5.1
Public Health Nursing	26	16.5
Psychiatry Nursing	4	2.5
Home Care Nursing	3	1.9
Gerontology Nursing	1	0.6
Emergency Nursing	1	0.6
Emergency Medicine Nursing	1	0.6
Thesis Type		
Master's Degree	111	70.3
Ph.D. Degree	47	29.7
Research Design*		
Observational	93	58.9
Intervention	61	38.6
Methodological	5	3.2
Qualitative	4	2.5
Meta-analysis	1	0.6
Application Area*		
Community	49	31.0
Hospital	59	37.3
Nursing Home	55	34.8
Literature (Meta-analysis)	1	0.6

*Multiple subject focus, research design and application area
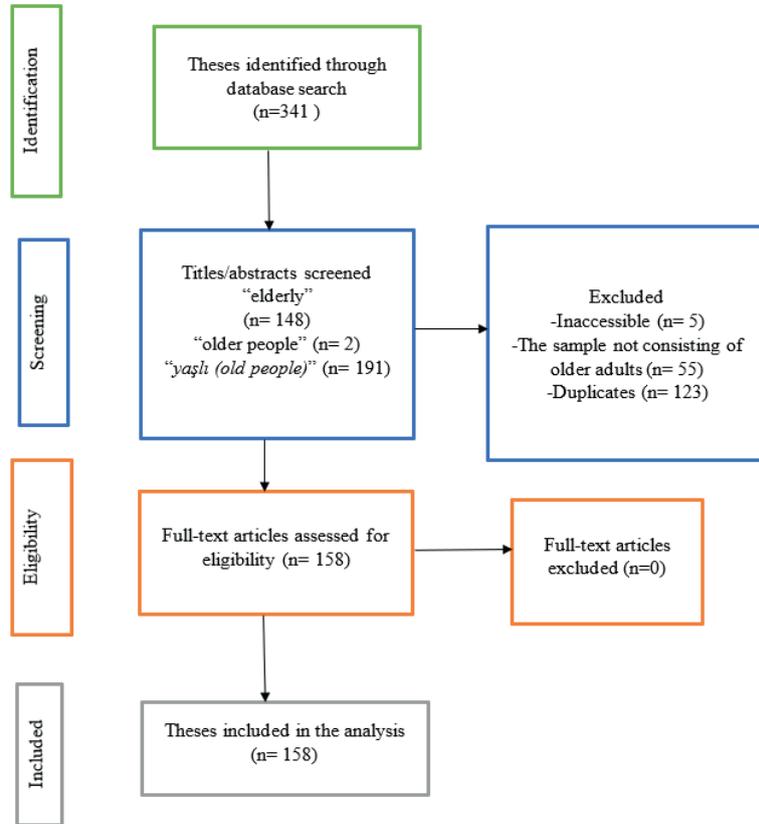
Figure 1.

PRACTICES IN THESES

Figure 2.

Disease Conditions
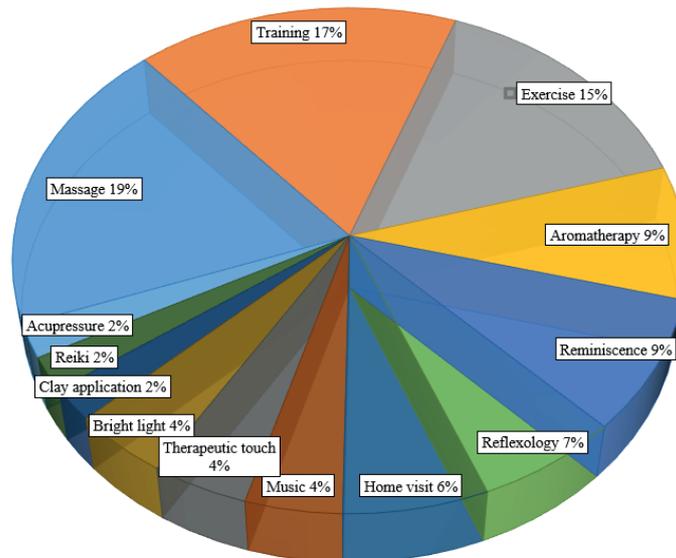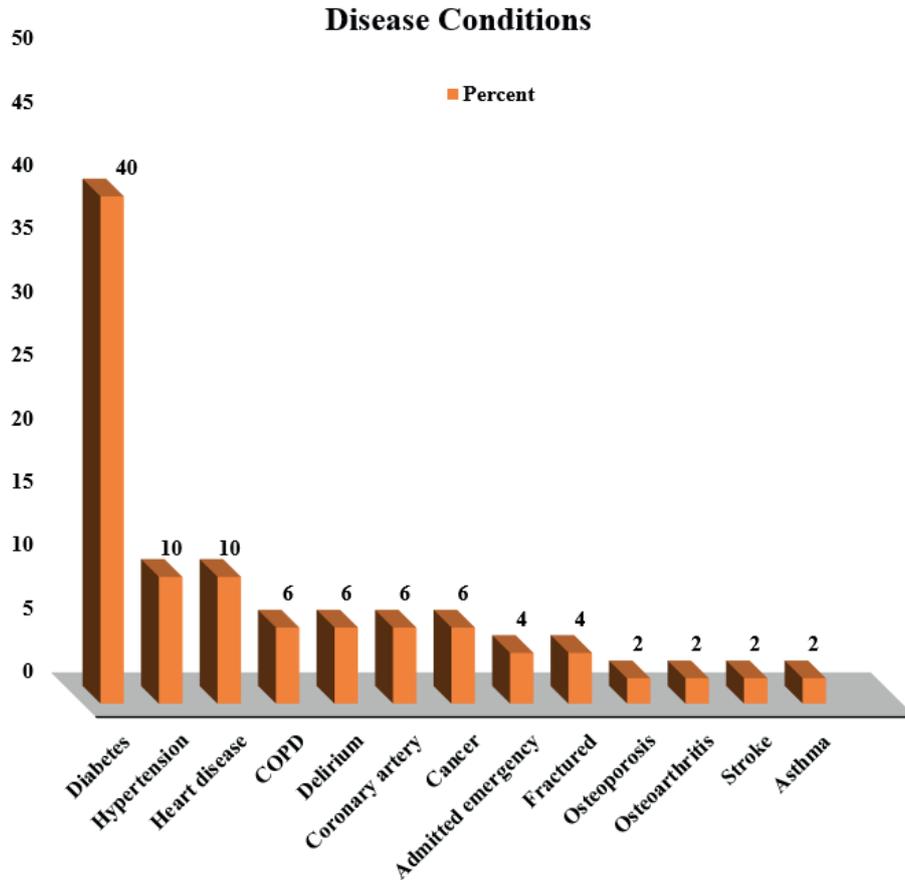

Figure 3.

half of the older adults in hospitals are at risk of falling (15). Samara et al. (16) conducted a meta-analysis of the efficacy of pharmacological and non-pharmacological interventions for insomnia in older adults. They have reported that pharmacological interventions have an effect, but their efficacy cannot be determined exactly. They have also stated that acupressure, acupuncture, and mindfulness-based stress reduction programs (non-pharmacological methods) have an effect, but there is limited evidence to suggest their efficacy. It is important that nurses conduct studies on quality of life, falls, and sleep levels in older adults. It is recommended that nurses write high-evidence theses to improve the quality of life of older adults, minimize their risk of falling, and meet their sleep needs.

Karaman et al. (17) evaluated theses on aging published in Turkey. They have reported an increase in the number of theses, despite fluctuations from year to year in both health sciences and social sciences. We have also found that there has been an increase in the number of nursing theses on older adults in recent years. It is predicted that there will be an increase in the number of nursing theses on older adults due to the increase in the older

population. We have found that most theses were written in nursing, internal medicine nursing, and public health nursing. Although the theses have specializations, they are registered as nursing theses without specifying specialization. This results in uncertainty regarding the specialization areas of the theses. According to the regulation on nursing, it is recommended that the nursing specialties other than pediatrics nursing work on health in advanced age (9). Four in five theses in nursing are master's thesis (81%), while one in five theses is a Ph.D. thesis (19%). We have also found that there are fewer Ph.D. theses than master's theses. Nurses should write more Ph.D. theses on older adults.

Karaman et al. (17) evaluated postgraduate (master's and Ph.D.) theses on aging. They found that the master's theses adopted observational (87.8%) or intervention (12.2%) designs, while the Ph.D. theses adopted observational (38.5%) or intervention (61.5%) designs. We have found that nursing theses on older adults adopted observational (58.9%), interventional (38.6%), or methodological (3.2%) designs. Theses should adopt mixed intervention designs.

The theses focused mostly on massage, training, and exercise. Acupressure and massage increase the cognitive level of older adults (18). Training increases older adults' cognitive and psychosocial activities and improves their health and well-being (19). Frail older adults who exercise have more physical functions and activities of daily living, but the effect of exercise on their quality of life is not yet known (20). Older adults with cognitive impairment who exercise have higher cognitive activity (21). These results show that interventions help older adults develop physically, psychosocially, intellectually, and culturally. As a result of 158 these reviews, it has been reported that the interventions made by nurses have positive contributions to the health of the elderly at different levels. Both in the examination of theses and in other studies in the literature, interventions for older adults led to the more active participation of the elderly in society and to realize of lifelong learning. Nursing theses should apply interventions for older adults.

There are 1538 hospitals (22), 158 nursing homes (23), and 8015 Family Health Centers (24). The theses were conducted in hospitals (37.3%), nursing homes (34.8%), and the community (31%). The application areas of the theses are not proportional to the number of institutions because it is easier to collect data from older adults in hospitals and nursing homes. Nurses should write more theses on the health of older adults in Family Health Centers.

Most of the theses recruited older adults with diabetes, hypertension, or heart disease. In parallel with our study, it has been observed that the same diseases are included in the global disease burden (22). Theses on older adults should also focus on other diseases with a high disease burden.

Limitations of the Research

This study excluded the theses that were not registered as "Nursing" in the subject area of the National Thesis Center. The theses that recruited samples (nursing students, caregivers, etc.) other than older adults were also excluded. The theses that recruited older adults but had no full-text access were also excluded. In addition, we could not use quality assessment tools to analyze the theses.

CONCLUSION

It is important to improve older adults' quality of life and promote their healthy aging. Most master's theses are observational studies on older adults' quality of life. Therefore, researchers should focus on different topics and recruit different sample groups. They should adopt mixed research designs and provide a high level of evidence. We have found that many nursing theses do

not specify a specialty. Therefore, when registering their theses to the National Thesis Center database, nurses should write "Nursing" in the subject field and specify their areas of specialization. In addition, there should be more geriatrics-gerontology nursing departments in Turkey. The theses have inadequate research design. Although they are randomized studies, they do not specify it. Also, there are no cohort studies, and there is only one meta-analysis. Nurses should clearly state the type and design of their publications and include them in their titles. Nurses should conduct multicenter studies on older adults to achieve a high level of evidence and popularize standard care. Nurses in Turkey should write more Ph.D. theses on older adults. Universities and hospitals should help nurses develop skills to allow them to write better quality theses. In addition, nursing theses should be funded by policymakers, and results should be forwarded to the relevant units (such as the ministry and directorate).

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