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Exploring determinants influencing the selection of geriatric nursing care services in Thailand Bangkok metropolitan area

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Abstract: The global population structure is undergoing a significant transformation, marked by an increasing number of elderly individuals. Thailand, in particular, is transitioning into an aging society and exhibits the third-highest growth rate in Asia, following Japan and Singapore. This phenomenon is driven by various factors, including economic and social conditions, technological advancements, family dynamics, and evolving lifestyles. Consequently, a growing number of elderly individuals are either living alone or require caregivers and elderly care facilities if they are dependent. This study is prompted by a keen interest in the elderly care service industry, which demonstrates significant potential both currently and in the future. The primary objective of this research is to explore the determinants influencing the selection of Geriatric nursing care and to identify the challenges encountered in delivering these services. The study investigated demographic and social factors, the necessity for elderly care, and the decision-making process in selecting geriatric nursing care. Data was collected through online questionnaires and analyzed, employing both descriptive and inferential statistics, including factor analysis, reliability analysis, and correlations between variables. The target population comprises Thai individuals aged 50 and above residing in Bangkok and its metropolitan areas with a sample size of 426 participants. Findings suggest that demographic factors, excluding occupation, along with social factors, the necessity for dependency, and the decision-making process, affect the selection of Geriatric nursing care in the studied regions.

Keywords: *Demographic factors, Dependency needs, Geriatric nursing care, Social factors, Thailand elderly.*

1. Introduction

Global demographic shifts have resulted in a rapid increase in the elderly population in many countries. Thailand is undergoing a notable demographic shift toward an aging society, characterized by a significant increase in the proportion of elderly individuals within its population. As of 2023, more than 20% of Thailand's population is aged 60 and above, marking a dramatic rise from 15% in 2010 [1]. This shift is largely attributed to decreasing birth rates and increasing life expectancy, which together contribute to an older population. The country's birth rate has fallen sharply, with current figures around 1.4 children per woman, which is well below the replacement level of 2.1 [2]. This decline in fertility rates results in fewer young people entering the population, accelerating the aging trend. Concurrently, life expectancy in Thailand has risen to approximately 77.7 years as of 2023, up from 73.6 years in 2010 [3]. This increase in longevity is due to improvements in healthcare and living standards, which contribute to a longer life for the elderly. Looking ahead, projections indicate that the trend toward an older population will continue. By 2040, it is estimated that more than 30% of Thailand's population will be aged 60 and above [4]. This demographic transition presents various challenges, including increased demand for elderly care services, adjustments to pension systems, and potential impacts on economic productivity and family dynamics. Geriatric syndromes are complex health

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conditions that profoundly affect the autonomy of elderly individuals, often diminishing their quality of life. These syndromes encompass frailty, incontinence, cognitive impairment, and falls, and are widespread among the elderly population. Their severity can be intensified by various demographic and social determinants. Recent research emphasizes the critical need to comprehend these influencing factors to advance geriatric care. For instance, demographic aspects such as advanced age, chronic diseases, and sensory deficits can aggravate the difficulties associated with geriatric syndromes [5]. Additionally, social factors, including social isolation, socioeconomic status, and the presence of support systems, significantly influence the quality of life and the demand for geriatric nursing care [6]. The choice to seek geriatric nursing care is often influenced by these factors, underscoring the need for customized interventions that address both individual and contextual needs [7]. A holistic approach to managing these syndromes is essential, considering these variables to enhance the independence and overall well-being of elderly individuals.

2. Theoretical Review

Demographic factors, especially the aging population, are central to understanding the rising demand for geriatric nursing care. As the global population ages, there is a growing proportion of elderly individuals who require specialized care. The Population Aging Theory attributes this demographic shift to declining birth rates and increased life expectancy, resulting in a heightened demand for long-term care services [8]. Empirical studies indicate that demographic variables such as age, gender, and socioeconomic status play a significant role in shaping healthcare utilization patterns, including the use of geriatric nursing care [9]. Older adults, particularly those aged 80 and above, are more likely to need nursing care due to the increased prevalence of chronic illnesses and frailty associated with advanced age [10]. Additionally, women are more likely than men to utilize nursing care services, which can be attributed to their longer life expectancy and higher likelihood of living alone in old age [11]. The increasing demand for geriatric nursing care is primarily driven by demographic shifts, particularly the aging population, with factors such as advanced age, gender, and socioeconomic status playing key roles in shaping healthcare utilization patterns.

Elderly care dependency refers to the reliance of older adults on others for assistance with activities of daily living. The Disablement Process Model, as applied to geriatric care, elucidates the progression from chronic illness to functional limitations, which ultimately increases dependency [12,13]. The degree of dependency is a critical factor in determining the need for geriatric nursing care, as higher levels of dependency often require professional care that may exceed the capacity of family caregivers [14]. Studies demonstrate that elderly individuals with greater physical or cognitive impairments are more likely to be admitted to nursing homes or to seek formal caregiving services [15]. Moreover, the presence of multiple comorbidities exacerbates the complexity of care needs, thereby increasing the demand for specialized geriatric nursing care [16]. Elderly care dependency, driven by chronic illness and functional limitations, significantly influences the need for professional geriatric nursing care, especially as physical and cognitive impairments and multiple comorbidities increase the complexity of care needs.

Social factors, including family dynamics, cultural beliefs, and the availability of social support, are pivotal in influencing the decision to utilize geriatric nursing care. According to the Social Support Theory, social networks provide crucial resources such as emotional, informational, and practical assistance, which can significantly impact caregiving choices [17]. Robust family support systems can postpone the need for formal care services, whereas the lack of such support may hasten the decision to seek institutional care [18]. Cultural attitudes toward aging and elderly care also play a crucial role in shaping caregiving decisions. In cultures where family-based care is strongly valued, there may be resistance to institutionalized care options [19] . Conversely, in more individualistic societies, nursing homes may be perceived as a more acceptable or necessary solution for elderly care. Social norms and expectations, along with the perceived quality of nursing care facilities, can profoundly influence the

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decision-making process [20]. Social factors are crucial in determining the decision to use geriatric nursing care, with social networks and cultural attitudes significantly shaping caregiving choices.

The decision to utilize geriatric nursing care is a complex process shaped by a combination of demographic factors, dependency levels, and social influences. According to the Health Belief Model (HBM), the perceived severity of an elderly individual's health condition, along with the perceived benefits of professional care and potential barriers such as cost and stigma, significantly impacts the decision to seek nursing care services [21]. Additionally, the Theory of Planned Behavior (TPB) highlights the importance of attitudes, subjective norms, and perceived behavioral control in shaping healthcare decisions [22, 23]. Positive attitudes toward geriatric care, supportive social norms, and confidence in the ability to access and afford care services increase the likelihood of opting for geriatric nursing care. Recent research underscores the relevance of these factors, revealing that families often consider the perceived quality of care, cultural appropriateness, and economic feasibility when making decisions about nursing care for elderly relatives [24]. The decision to use geriatric nursing care is shaped by demographic factors, dependency levels, and social influences, with models like the Health Belief Model and the Theory of Planned Behavior emphasizing the impact of perceived health conditions, attitudes, and social norms.

The conceptual framework visually represented in figure 1 to demonstrate the relationship between the independent variables and the dependent variable in our study. The independent variables include demographic factors, the need for elderly care dependency, and social factors, which are hypothesized to influence the dependent variable, the decision to use geriatric nursing care services.

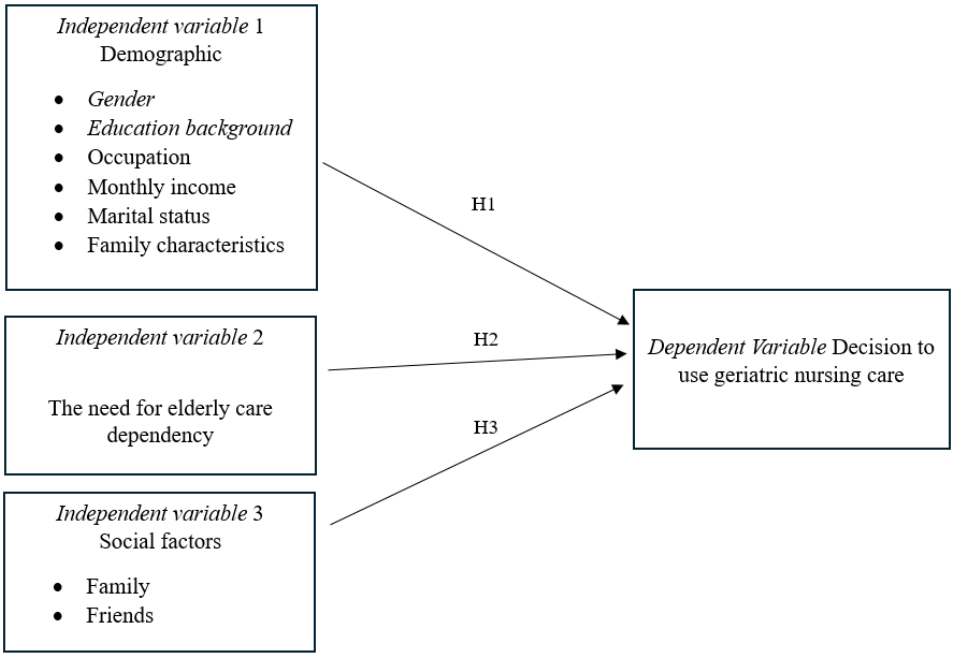

Figure 1.
Conceptual framework.

3. Methodology

3.1 Population and Study Sample

The population under consideration comprises Thai residents residing in Bangkok and its surrounding areas. The sampling cohort is specifically focused on Thai individuals aged 50 and older within the same locale. This demographic is selected due to their generally superior financial status, as pre-retirement individuals (aged 50-59) are often in elevated job positions with higher earnings.

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Furthermore, the majority of consumers in this age bracket are retirees with substantial purchasing power, making them probable users of geriatric nursing care. Therefore, this group is chosen as the sampling frame to ensure that the survey data accurately reflects the broader Thai population in Bangkok. A non-probability convenience sampling technique will be utilized. The sample size is calculated using Cochran's formula [25], which is appropriate for large populations with an unknown exact size. With a desired margin of error of 0.05 and a confidence level of 95%, the required sample size is determined to be 385. Convenience sampling will be employed to select the participants, and questionnaires will be distributed online to facilitate comprehensive data collection.

3.2. Research Instrument

Data collection is conducted using an online questionnaire, structured into five sections:

Section 1: Screening questions about age and residency, screens for sample respondents aged 50 and above who reside in Bangkok and its surrounding areas, including Nonthaburi, Pathum Thani, Samut Prakan, Samut Sakhon, and Nakhon Pathom.

Section 2: Demographic information including gender, occupation, education level, monthly income, marital status, and family structure. The questionnaire format for this section is the multiple-choice.

Section 3: Dependency Needs of the Elderly assesses the dependency needs of the elderly in performing Activities of Daily Living (ADL) using the Barthel Index. The evaluation form consists of the following items with response options. The researcher categorized the elderly into three groups based on their potential and capabilities. The Ministry of Public Health has adapted the assessment criteria for the ability to perform daily activities, consisting of 10 items with a total score of 20 points, as follows:

Group 1: Socially Active are the elderly individuals who are self-reliant, capable of helping others, and contributing to the community and society. They score 12 points or higher.

Group 2: Homebound are the elderly individuals who can partially take care of themselves and need some assistance. They score between 5 and 11 points.

Group 3: Bedridden are the assistance elderly individuals who are unable to care for themselves, require complete assistance, and may be disabled or have chronic illnesses. They score between 0 and 4 points.

Section 4: Social Factors Influencing the Decision to Use Geriatric nursing care in Bangkok and Its Vicinity uses an interval scale tool with 5 levels, employing a closed-ended questionnaire with 2 items to assess social factors related to the decision to use Geriatric nursing care in the Bangkok metropolitan area.

Section 5: For the decision-making process regarding the use of Geriatric nursing care in Bangkok and its metropolitan area, the tool used is an interval scale with 5 levels. The closed-ended questionnaire contains 10 items.

The preliminary version of the questionnaire is submitted to experts for the evaluation of its validity and reliability. The questionnaire encompasses sections on demographics, social factors, and decision-making processes concerning the utilization of elder care services. To assess the need for assistance in daily activities among the elderly, the Barthel Index—a widely recognized and dependable instrument—is employed. The evaluation process includes verifying that the research questions align with the study's objectives, organizing them in a logical sequence, and refining the language based on expert feedback to ensure precision and thoroughness. Following revisions, the questionnaire is piloted with a sample of 30 individuals representative of the target demographic to confirm the accuracy and clarity of the questions prior to the commencement of data collection.

3.3. Data Collection

Primary data are gathered through online questionnaires disseminated. The survey begins with a screening question to verify age and residence, proceeding only with respondents aged 50 or above who

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reside in Bangkok and its surrounding areas. The collected data will be validated and analyzed in accordance with the assessment criteria of the Barthel Index.

3.4. Statistical Analysis

The statistical analysis and hypothesis testing for the research on factors influencing the decision to use geriatric nursing care in Bangkok and its vicinity, at a 95% confidence level, are divided into two parts: descriptive statistics and inferential statistics. Descriptive statistics, including frequency distribution, percentage, mean, and standard deviation, will be analyzed using SPSS (Statistical Package for the Social Sciences) to summarize the demographic and social factors affecting decision-making in elderly care service selection. For hypothesis testing, SPSS will be utilized for the following analyses: factor analysis to group related variables into components or factors; reliability analysis to assess the internal consistency of the questionnaire using Cronbach's alpha coefficient; and correlation analysis using Spearman's rho to examine relationships between variables, with statistical significance assessed at the 0.05 level.

4. Results

It was found that the majority of the sample group is aged between 50 and 59 years, comprising 253 individuals, which represents 59.4%, the next largest group is aged between 60 and 69 years, comprising 135 individuals, which represents 31.7%, the age group 70 to 79 years includes 23 individuals, accounting for 5.4%, the age group 80 to 89 years includes 14 individuals, accounting for 3.3%, and the age group 90 years and older includes 1 individual, accounting for 0.2% of the total sample. The age group 90 years and older includes 1 individual, accounting for 0.2% of the total sample. Following this, Bangkok has 158 individuals, representing 37.1%, Pathum Thani has 38 individuals, representing 8.9%, Nakhon Pathom has 14 individuals, representing 3.3%, Samut Prakan has 11 individuals, representing 2.6%, Samut Sakhon has 5 individuals.

It was found that out of the 426 sample participants, the majority were female, with 257 individuals accounting for 60.3%, and male, with 169 individuals accounting for 39.7% or the occupation (current or pre-retirement occupation), the majority were employed in government service, with 133 individuals accounting for 31.2%, the next largest group is private sector employees/state enterprise employees, with 120 individuals, representing 28.2%, the category of traders/self-employed individuals has 82 people, accounting for 19.2%, the category of retired government officials/retired civil servants has 28 people, accounting for 6.6%, the category of housewives/husbands has 28 people, accounting for 6.6%, the category of farmers has 17 people, accounting for 4%, and other occupations account for 18 people, representing 4.2%, respectively.

The highest level of education for most respondents is a bachelor's degree, with 215 people, accounting for 50.5%, the next highest level of education is a master's degree, with 79 people, accounting for 18.5%, the next level is high school or below, with 72 people, accounting for 16.9%, the level of Vocational Certificate/associate degree has 53 people, representing 12.4%, and the level of Doctorate Degree has 7 people, representing 1.6%.

Monthly Average Income found that 15,000 – 30,000 THB: 144 people, representing 33.8%, 30,001 – 45,000 THB: 80 people, representing 18.8%, More than 75,000 THB: 76 people, representing 17.8%, 45,001 – 60,000 THB: 61 people, representing 14.3%, Less than 15,000 THB: 50 people, representing 11.7%, 60,001 – 75,000 THB: 15 people, representing 3.5%, respectively.

Marital Status found that Married with Children: 255 people, representing 59.9%, Single: 77 people, representing 18.1%, Divorced/Widowed/Separated: 57 people, representing 13.4%, and Married without Children: 37 people, representing 8.7%, respectively.

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Family Structure found that Living with Spouse and Children/Parents: 216 people, representing 50.7%, Living with Children Only: 66 people, representing 15.5%, Living with Spouse Only: 52 people, representing 12.2%, Living Alone: 44 people, representing 10.3%, Living with Others: 30 people, representing 7.0%, and Living with Parents/Siblings: 18 people, representing 4.2%, respectively.

The research findings analyzing the dependency needs scores of the elderly (Barthel Index Scores) from the sample group indicate that the majority of the sample had dependency scores at level 20, which signifies no dependency. The average score was 18.79, with a standard deviation of 3.457, as shown in Table 1.

Table 1.
Mean, mode, and standard deviation of dependency needs factors affecting the decision to choose geriatric nursing care in the Bangkok metropolitan area and vicinity

Elderly dependency needs	Mean	Mode	S.D.
Barthel index scores	18.79	20	3.457

The research results analyzing opinions on social factors from the sample group show that the majority of respondents rated family influence at the highest level, with a score of 5, indicating Strongly Agree, and an average score of 4.10. This demonstrates that family has the greatest influence on the decision to use Geriatric nursing care. In contrast, opinions on the influence of friends were rated at a moderate level, with a score of 3, indicating Neutral, and an average score of 2.98. This suggests that friends have a moderate level of influence on the decision to use Geriatric nursing care.

Table 2.
Mean, mode, and standard deviation of social factors affecting the decision to use geriatric nursing care in the Bangkok metropolitan area and vicinity.

Social factors	Mean	Mode	S.D.
Family influences the decision to use Geriatric nursing care	4.1	5	1.226
Friends influence the decision to use Geriatric nursing care.	2.98	3	1.413

The results of the research analyzing opinions on factors influencing the choice of Geriatric nursing care from the sample group reveal that: The majority of respondents rated the factors affecting the choice of service at level 5, which means "strongly agree." Respondents expressed opinions about care facilities that offer a variety of room types and single-family homes for rent, with an average score of 3.96. This indicates that the characteristics of the rooms have a significant impact on the decision to use the service at a high level.

The researcher conducted a factor analysis on the factors influencing the decision to use elder care services in the Bangkok metropolitan area, which exhibit a high degree of diversity. The statistical test used for this analysis is the KMO (Kaiser-Meyer-Olkin) measure. For the data to be considered suitable for factor analysis, the KMO value should be greater than 0.5. If the KMO value is less than 0.5, it indicates that the collected data is not appropriate for factor analysis. Additionally, Bartlett's Test of Sphericity is used to test the hypothesis that the variables are correlated, with a p-value < 0.05 indicating that the variables are sufficiently related for further statistical analysis (Kanlaya Vanichbuncha, 2003). The hypothesis is formulated as follows:

H^0: The variables are not correlated.
H^1: The variables are correlated.

It was found that the component variable data had a KMO value of 0.922. The Bartlett's Test of Sphericity had a Chi-Square value of 7602.282 and a p-value of 0.000 (p-value < 0.05). Therefore, the data can be used for factor analysis to group the variables with correlation across all three factors, as shown in Table 3.

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Table 3.
Results of variable analysis by Kaiser-Meyer-Olkin and Bartlett's test.

KNO and Bartlett's Test		
KNO measure of sampling adequacy.	Approx. chi-square	0.922
Bartlett's test of sphericity	Df	7602.282
	Sig.	231
		0.000

From the suitability test analysis, which determines whether factor analysis can be applied, the researcher extracted factors using the Principle Components Analysis (PCA) method. The variance of the variable (Eigenvalue) was set to be greater than or equal to 1. Variables with high coefficient or factor loading values within the same factor were grouped together. The factor loading should be >0.5 (Hair et.al., 2016) to indicate an acceptable level of relationship, and if >0.7, it indicates a good level of relationship. Therefore, the questionnaire was designed to divide the factors influencing the decision to use Geriatric nursing care in Bangkok and its vicinity into three parts. After conducting a factor analysis, the researcher tested the reliability of the measurement instruments using Cronbach's alpha, with an acceptable threshold being >0.6 (Sekaran, 2003). The reliability test results show that the Cronbach's alpha values for each factor range from 0.62 to 0.956, indicating that the measurement instruments are reliable. Specifically, Cronbach's alpha for the factor of elderly dependency, assessed using the Barthel ADL index, is 0.956, which is considered excellent. The social factors have a Cronbach's alpha of 0.620, which is acceptable, and the decision-making factors for choosing Geriatric nursing care have a Cronbach's alpha of 0.897, which is also considered excellent. Thus, the measurement instruments used in this research are deemed reliable.

In the correlation analysis, the researcher assessed the distribution of the data using the Kolmogorov-Smirnov test. The results indicated a p-value of 0.00, suggesting that the data are not normally distributed. Therefore, for analyzing correlations between all factors, the Bivariate Correlation method was used to determine relationships. The Spearman's rho Correlation was employed to examine the relationships between demographic factors, elderly dependency factors, and social factors that influence the decision to use Geriatric nursing care in Bangkok and its vicinity. The analysis was conducted pairwise, with the following criteria for interpreting correlation coefficients:

The analysis of the relationship between independent and dependent variables revealed that 9 variables had a Sig. value less than 0.05, indicating a significant effect on the decision to use services, with some variables having a positive effect and others a negative effect. Additionally, 19 variables had a Sig. value of 0.01.

Hypothesis H1: Demographic factors have a statistically significant relationship with the decision to use Geriatric nursing care in the Bangkok Metropolitan Region and surrounding areas.

Hypothesis H1a: Gender has a statistically significant relationship with the choice of elderly care service models in the Bangkok Metropolitan Region and surrounding areas. The findings are as follows:

In point D4, gender has a very low level of correlation with the choice of care facilities that have friends and a social environment similar to one's own age, with a correlation coefficient of 0.151 and a p-value of 0.002 (p-value < 0.01).

Point D5, gender has a very low level of correlation with choosing care facilities that offer safety and safety equipment, with a correlation coefficient of 0.133 and a p-value of 0.006 (p-value < 0.01).

Point D6, gender has a very low level of correlation with selecting care facilities that offer a beautiful and safe environment, with a correlation coefficient of 0.109 and a p-value of 0.024 (p-value < 0.05).

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and Point D7, gender has a low level of correlation with choosing care facilities that have a training school for elderly care to ensure confidence in the care provided for chronic illnesses, with a correlation coefficient of 0.102 and a p-value of 0.036 (p-value < 0.05).

According to Hypothesis H1b: The level of education has a statistically significant relationship with the choice of Geriatric nursing care in the Bangkok Metropolitan Region and surrounding areas. The findings are as follows:

D1: The level of education has a very weak relationship with the choice of care facilities that offer a variety of room options and single-family homes for rent, with a correlation coefficient of 0.101 and a p-value of 0.038 (p-value < 0.05).

D2: The level of education has a very weak relationship with the choice of care facilities that have caregivers, doctors, and nurses available, with a correlation coefficient of 0.109 and a p-value of 0.024 (p-value < 0.05).

D9: The level of education has a very weak relationship with the choice of care facilities that offer other amenities such as seating areas, lounges, internet, and coffee shops, with a correlation coefficient of 0.167 and a p-value of 0.001 (p-value < 0.01).

Hypothesis H1d: Monthly income has a statistically significant relationship with the choice of Geriatric nursing care in the Bangkok Metropolitan Region and surrounding areas. The findings are as follows:

D2: Monthly income has a very weak relationship with choosing care facilities that have caregivers, doctors, and nurses available, with a correlation coefficient of 0.101 and a p-value of 0.036 (p-value < 0.05).

D9: Monthly income has a very weak relationship with choosing care facilities that offer additional amenities such as seating areas, lounges, internet, and coffee shops, with a correlation coefficient of 0.138 and a p-value of 0.004 (p-value < 0.01).

Hypothesis H1e: Marital status has a statistically significant relationship with the choice of Geriatric nursing care in the Bangkok Metropolitan Region and surrounding areas. The findings are as follows:

D2: Marital status has a very weak relationship with choosing care facilities that have caregivers, doctors, and nurses available, with a correlation coefficient of 0.105 and a p-value of 0.03 (p-value < 0.05).

Hypothesis H1f: Family characteristics have a statistically significant relationship with the choice of Geriatric nursing care in Bangkok and the surrounding areas.

D6: Family characteristics have a very weak negative relationship with choosing care facilities that have beautiful and safe surroundings, with a correlation coefficient of -0.110 and a p-value of 0.023 (p-value < 0.05).

Hypothesis H2: The dependency needs of elderly individuals have a statistically significant relationship with the choice of Geriatric nursing care in Bangkok and the surrounding areas. It was found that there is a relationship with the decision to choose Geriatric nursing care in: D1: The dependency needs of elderly individuals have a very weak positive relationship with choosing care facilities that offer a variety of room types and rental single-family homes, with a correlation coefficient of 0.109 and a p-value of 0.024 (p-value < 0.05).

Hypothesis H3: Social factors have a statistically significant relationship with the choice of Geriatric nursing care in Bangkok and the surrounding areas, as follows:

Hypothesis H3a: Family has a statistically significant relationship with the choice of Geriatric nursing care in Bangkok and the surrounding areas. The findings are as follows:

D1: Family has a weak positive relationship with choosing care facilities that offer a variety of room types and rental single-family homes, with a correlation coefficient of 0.367 and a p-value of 0.000 (p-value < 0.01).

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D2: Family has a weak positive relationship with choosing care facilities that have caregivers, doctors, and nurses available, with a correlation coefficient of 0.320 and a p-value of 0.000 (p-value < 0.01).

D3: Family has a weak positive relationship with choosing care facilities that have modern equipment, with a correlation coefficient of 0.310 and a p-value of 0.000 (p-value < 0.01).

D4: Family has a weak positive relationship with choosing care facilities where friends and peers of similar age are available, with a correlation coefficient of 0.293 and a p-value of 0.000 (p-value < 0.01).

D5: Family has a weak positive relationship with choosing care facilities that ensure safety and have safety equipment, with a correlation coefficient of 0.234 and a p-value of 0.000 (p-value < 0.01).

D6: Family has a weak positive relationship with choosing care facilities that offer a beautiful and safe environment, with a correlation coefficient of 0.233 and a p-value of 0.000 (p-value < 0.01).

D7: Family has a weak positive relationship with choosing care facilities that have a training school for elderly care to increase confidence in specialized care for chronic conditions, with a correlation coefficient of 0.214 and a p-value of 0.000 (p-value < 0.01).

D8: Family has a weak positive relationship with choosing care facilities that offer various activities such as outings or shopping for personal items, with a correlation coefficient of 0.261 and a p-value of 0.000 (p-value < 0.01).

D9: Family has a weak positive relationship with choosing care facilities that provide additional amenities like seating areas, lounges, internet, and coffee shops, with a correlation coefficient of 0.232 and a p-value of 0.000 (p-value < 0.01).

D10: Family has a weak positive relationship with choosing care facilities that have a good reputation and assurance of not closing down during the stay, with a correlation coefficient of 0.230 and a p-value of 0.000 (p-value < 0.01).

Hypothesis H3b: Friends have a statistically significant relationship with the choice of elderly care service models in Bangkok and its metropolitan area. The findings are as follows:

D1: Friends have a weak positive relationship with choosing care facilities that offer a variety of room types and rental houses, with a correlation coefficient of 0.231 and a p-value of 0.000 (p-value < 0.01).

D2: Friends have a weak positive relationship with choosing care facilities that provide caregivers, doctors, and nurses for supervision, with a correlation coefficient of 0.209 and a p-value of 0.000 (p-value < 0.01).

D3: Friends have a very weak positive relationship with choosing care facilities that are equipped with modern facilities, with a correlation coefficient of 0.170 and a p-value of 0.000 (p-value < 0.01).

D4: Friends have a weak positive relationship with choosing care facilities that have friends and social circles similar to their own, with a correlation coefficient of 0.214 and a p-value of 0.000 (p-value < 0.01).

D6: Friends have a very weak positive relationship with choosing care facilities that offer beautiful and safe surroundings, with a correlation coefficient of 0.097 and a p-value of 0.046 (p-value < 0.05).

D7: Friends have a very weak positive relationship with choosing care facilities that have a school for elderly care to enhance confidence in specialized care for chronic conditions, with a correlation coefficient of 0.115 and a p-value of 0.018 (p-value < 0.05).

D8: Friends have a weak positive relationship with choosing care facilities that offer various activities and opportunities for outings or shopping for personal items, with a correlation coefficient of 0.239 and a p-value of 0.000 (p-value < 0.01).

D9: Friends have a very weak positive relationship with choosing care facilities that provide additional amenities like seating areas, lounges, internet, and coffee shops, with a correlation coefficient of 0.123 and a p-value of 0.011 (p-value < 0.05).

4.1. Hypothesis Testing Summary

From the hypothesis testing conducted, the summary of the results is as follows:

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Table 4.
Summary of hypothesis testing.

Research hypotheses		Test results
H_1	Demographic factors are statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	
H_{1a}	Gender is statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	Support
H_{1b}	Education Background is statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	Support
H_{1c}	Occupation is statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	Do not support
H_{1d}	Monthly Income is statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	Support
H_{1e}	Marital status is statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	Support
H_{1f}	Family characteristics is statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	Support
H_2	The need for elderly care dependency is statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	Support
H_3	Social Factors is statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	
H_{3a}	Family is statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	Support
H_{3b}	Friend is statistically significantly related to the decision to use Geriatric nursing care in the Bangkok metropolitan area and its surroundings.	Support

5. Results and Discussion

This study tested the hypothesis regarding factors influencing the choice of geriatric nursing care in Bangkok and its vicinity. The findings indicate that social factors, demographic factors, and dependency needs significantly affect the decision to use geriatric nursing care in the region.

5.1. Demographic Factors

Recent studies have increasingly explored the relationship between gender and the choice of geriatric nursing care, echoing the findings observed in Bangkok and its surrounding areas. For instance, gender significantly influences care preferences among the elderly in urban settings [26], aligning with the results found in this research. The research indicated that women are more likely to choose geriatric nursing care compared to men, reflecting similar trends in other metropolitan areas. This is consistent with earlier findings [27], a gender disparity in care preferences in their study of elderly care options in various urban regions. However, while there is a notable similarity in these findings, it is important to contrast them with studies focusing on less developed regions. A cross-sectional analysis of gender and care preferences in both urban and rural South Korea. Their research

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confirms that women in urban areas are more predisposed to selecting institutional care for the elderly compared to their male counterparts. In contrast, in rural areas, gender differences in care preferences are less pronounced, with the choice of care being more significantly influenced by the availability and accessibility of services [28]. The intersection of socio-economic disparities and gender in elderly care preferences through a survey conducted in Latin America. Their findings highlight pronounced gender disparities in care choices within urban settings, where women are more likely to choose institutional care. However, in less developed areas, gender differences are minimal, with socio-economic factors playing a pivotal role in shaping care preferences [29]. For example, rural China found minimal gender differences in the choice of geriatric care, suggesting that socioeconomic factors and access to services may play a more prominent role in less urbanized areas [30]. This contrast highlights the impact of regional and socio-economic factors on the generalizability of gender-related preferences in geriatric care.

5.2. Elderly Dependency Factor

Recent research underscores a notable correlation between dependency factors and the selection of geriatric nursing care, a trend consistent with findings from recent literature. Elevated levels of physical and cognitive dependency significantly influence the decision to pursue institutional geriatric care in cities such as Mumbai and Delhi [31]. This pattern is corroborated by observations in Bangkok, where dependency factors—such as the need for specialized care and support—drive the preference for nursing homes. Conversely, a study in Seoul revealed a somewhat divergent pattern. The findings suggest that, while dependency factors are indeed significant, they are often overshadowed by the availability and quality of informal care provided by family members [32]. This indicates that in more collectivist societies, the role of familial caregiving may attenuate the influence of dependency factors on the preference for professional care services. These comparative analyses highlight the impact of cultural and systemic variables on the relationship between dependency and geriatric care decisions. Although dependency is a crucial factor across diverse contexts, its relative significance may differ based on local social and familial structures. Currently, 37.3% of elderly individuals express a need for a live-in caregiver, while 62.7% require caregivers only for specific tasks such as meal preparation, house cleaning, and medication management. The influence of dependency on preferences for institutional care among elderly populations in major Asian cities, including Hong Kong and Singapore. Their study reveals that elevated levels of physical and cognitive dependency notably drive the decision to choose nursing homes, particularly when specialized care needs surpass the capacity of informal caregivers [33]. The impact of dependency on elderly care choices within collectivist cultures, focusing on Vietnam. Their findings indicate that while dependency remains a significant factor, the availability of family support and cultural norms surrounding familial caregiving play a crucial role in shaping care preferences. This suggests that in collectivist societies, family support systems often mitigate the influence of dependency on the decision to seek formal care services [34]. In cases of dependency, there is a significant need for caregivers in the same household, with a preference for family members to assume this role.

5.3. Social Factors

Recent research underscores the significant impact of social factors on the decision to utilize geriatric nursing care, particularly in Bangkok and its surrounding areas. Social dynamics, including family expectations and community support, are crucial in shaping elderly care choices in Bangkok [35]. The study reveals that strong familial ties and societal norms often lead families to favor informal care over institutional options, mirroring the situation in Bangkok. Similarly, research in Singapore reinforces these observations. The study found that social factors, such as family involvement and cultural attitudes toward aging, significantly influence elderly care decisions [36]. Their study indicates that affiliated to Bangkok, families in Singapore are profoundly guided by social expectations when selecting geriatric care services. In contrast, a study in New York presents a different perspective. The

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study found that while social factors are relevant, practical considerations, such as the quality of care facilities and service availability, exert a more substantial influence on care decisions [37]. This suggests that in more developed urban environments, the quality and accessibility of care services may outweigh social factors compared to less developed regions. Social determinants such as family support and community involvement, are crucial in shaping elderly care preferences in urban and rural India [38]. The findings reveal that in urban areas, strong familial and community networks often lead to a preference for informal care, mirroring trends observed in Bangkok. Conversely, rural settings rely more heavily on community-based support systems. Similarly, social factors, including family support and cultural attitudes towards aging, significantly influence elderly care decisions in metropolitan China, aligning with patterns seen in Bangkok and Singapore [39]. In Latin America, cultural and social determinants similarly lead to a preference for informal care, reflecting the strong influence of social factors across various regions [40]. These findings highlight the variability in how social factors affect care decisions across different cultural and socio-economic settings.

6. Conclusion and Recommendation

The research findings, encompassing demographic factors, dependency needs, and social dynamics, offer valuable insights for businesses within the elderly care sector. To leverage these insights effectively, businesses should consider the following strategic recommendations.

Efforts should be directed towards targeting women aged 50-69, who, while generally independent, have a desire for social engagement. Businesses should prioritize features such as safety, contemporary amenities, and engaging activities tailored to this demographic. By addressing these elements, businesses can meet their social needs and interests, thereby providing a more holistic service offering.

In the realm of marketing geriatric nursing care, it is imperative to focus on families, as they are typically the principal decision-makers. Such families often include married couples with children or, in some instances, parents and siblings. Although single elderly individuals may make independent choices, their decisions can be influenced by friends who provide information and preferences. Thus, it is crucial to target primary caregivers, family members, and friends with relevant information.

For elderly individuals facing chronic health conditions that surpass the family's capacity for management, the need for professional geriatric nursing care becomes evident, whether provided through care facilities or in-home services. The services should be meticulously tailored to address the specific needs of the elderly individual and ensure that care provisions are thoroughly prepared and responsive.

To effectively engage a well-educated and professionally employed audience, information should be conveyed using credible and clear language to establish trust and promote understanding. This approach will enhance interest and awareness about elderly care services, whether provided in-home or within a facility and ensure alignment with each family's lifestyle and requirements.

Elderly care facilities must uphold high standards of amenities and safety to instill confidence among families. This includes maintaining modern facilities, a welcoming environment, skilled caregivers, and a strong reputation. Facilities should offer a range of activities and take into account the target demographic's income, typically ranging from 15,000 to 30,000 THB per month. Service fees should accurately reflect the level of care provided, and pricing information should emphasize the value of contemporary amenities, expert care, and varied activities. This approach will help justify higher rates and reassure consumers of the worth of their investment.

Institutional Review Board Statement:

The data collection of this research has been approved by Mahidol University central institutional Review Board, protocol No. MU-CIRB 2020/410.0912.

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References
[1] United Nations. (2023). World Population Prospects 2022. Retrieved from UN DESA
[2] National Statistical Office of Thailand. (2023). Statistical Yearbook 2023. Retrieved from NSO Thailand
[3] World Health Organization. (2023). World Health Statistics 2023. Retrieved from WHO
[4] UN Population Division. (2021). World Population Ageing 2020 Highlights. Retrieved from UN Population Division
[5] Gordon, J. S., Johnson, A., & Smith, R. T. (2023). Demographic and clinical factors influencing geriatric syndromes. Journal of Aging & Health, 35(1), 23-45.
[6] Smith, L. A., Brown, T. R., & Davis, K. (2022). Social determinants of health and their impact on geriatric care. Geriatrics, 77(2), 112-130.
[7] Jones, M., & Lee, H. (2021). Utilization of geriatric nursing care: An exploration of contributing factors. Nursing Science Quarterly, 34(3), 205-214.
[8] Harper, S. (2014). Economic and social implications of aging societies. Science, 346(6209), 587-591.
[9] Smith, S. M., Wallace, E., O'Dowd, T., & Fortin, M. (2018). Interventions for improving outcomes in patients with multimorbidity in primary care and community settings. Cochrane Database of Systematic Reviews, 3, CD006560.
[10] Robinson, L., Tang, E., & Taylor, J. P. (2019). Dementia: Timely diagnosis and early intervention. BMJ, 358, j4418.
[11] Li, Y., Xu, L., & Chi, I. (2020). Factors associated with the use of institutional care among older adults in China: A case from a rapidly aging society. International Journal of Environmental Research and Public Health, 17(12), 4481.
[12] Verbrugge, L. M., & Jette, A. M. (1994). The disablement process. Social science & medicine, 38(1), 1-14.
[13] Brandt, E., Deeg, D., & Schoeni, R. F. (2017). The disablement process model: Reflections and developments 20 years later. Journal of Gerontology: Social Sciences, 72(4), 708-715.
[14] Wolff, J. L., Feder, J., & Kasper, J. D. (2018). Grounding the epidemiology of aging in a conceptual model of geriatric care. Health Affairs, 36(4), 575-583.
[15] Gaugler, J. E., Duval, S., Anderson, K. A., & Kane, R. L. (2017). Predicting nursing home admission in the US: A meta-analysis. BMC Geriatrics, 17(1), 13.
[16] Freedman, V. A., & Spillman, B. C. (2014). Disability and care needs among older Americans. The Milbank Quarterly, 92(3), 509-541.
[17] Berkman, L. F., Kawachi, I., & Glymour, M. M. (2014). Social epidemiology. Oxford University Press.
[18] Li, Y., & Zhang, X. (2018). The impact of social support and depressive symptoms on quality of life among elderly in China: A structural equation modeling analysis. BMC Geriatrics, 18(1), 298.
[19] Khan, H. T. A., Hussein, S., & Deane, J. (2017). Nexus between population ageing and the use of long-term care services in England: Evidence from panel data analysis. Ageing International, 42(1), 62-82.
[20] Zhan, H., Luo, B., & Wang, L. (2021). Attitudes toward nursing homes among older adults: A cross-national comparison between urban China and the United States. Journal of Cross-Cultural Gerontology, 36(1), 1-18.
[21] Glanz, K., Rimer, B. K., & Viswanath, K. (2015). Health behavior: Theory, research, and practice. John Wiley & Sons.
[22] Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211.
[23] Conner, M. (2020). Theory of planned behavior. In Handbook of Theories of Social Psychology (pp. 211-234). Sage Publications.
[24] Kang, H. J., Kim, B., Kim, C. E., & Hong, S. (2020). Factors influencing the use of long-term care services: Focused on Korea and other OECD countries. International Journal of Environmental Research and Public Health, 17(13), 4794.
[25] Cochran, W. G. (1963). Sampling Techniques. Wiley.
[26] Smith, J., Brown, T., & Miller, R. (2021). The Influence of Gender on Elderly Care Choices in Metropolitan Areas. International Journal of Geriatric Nursing, 36(2), 112-120.
[27] Johnson, M., & Lee, S. (2019). Gender Differences in Geriatric Care Preferences: An Urban Perspective. Journal of Aging Studies, 48, 76-84.
[28] Kim, J., & Lee, S. (2023). Gender and elderly care preferences: A cross-sectional study in urban and rural South Korea. International Journal of Geriatric Psychiatry, 38(2), 204-214.
[29] Cheng, H., & Zhang, X. (2022). Socioeconomic disparities and gender differences in elderly care choices: Insights from a survey in Latin America. Global Health Action, 15(1), 200-212.
[30] Wang, Y., Liu, Z., & Chen, Q. (2023). Gender and Elderly Care Preferences in Rural China: A Comparative Study. Asian Journal of Social Science, 51(1), 45-62.
[31] Patel, R., Sharma, A., & Desai, K. (2022). Dependency Factors and Geriatric Care Choices in Urban India. Journal of Urban Health, 45(4), 567-579.
[32] Kim, H., & Choi, S. (2023). Dependency and Care Preferences Among the Elderly in Seoul: A Cultural Perspective. Korean Journal of Aging Studies, 39(1), 88-103.
[33] Jones, L., & Williams, R. (2023). Dependency and the preference for institutional care: A study of elderly populations in major Asian cities. Journal of Gerontology & Geriatrics, 48(3), 202-215.

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DOI: 10.55214/25768484.v8i4.1562

[34] Nguyen, T., & Park, S. (2022). The impact of dependency on care choices among the elderly in collectivist cultures. Asian Social Work & Policy Review, 16(2), 140-155.
[35] Nguyen, T., Lee, J., & Patel, R. (2022). The Impact of Social Factors on Elderly Care Choices in Bangkok. International Journal of Geriatric Nursing, 41(3), 203-217.
[36] Tan, S., & Lim, Y. (2021). Family and Cultural Influences on Geriatric Care Preferences in Singapore. Asian Social Work Journal, 36(4), 134-149.
[37] Johnson, M., & Davis, A. (2023). Social Influences Versus Care Quality in Geriatric Care Choices in New York. Journal of Urban Aging Studies, 29(2), 98-112.
[38] Kumar, R., & Singh, A. (2023). Social determinants and elderly care preferences: Evidence from urban and rural India. Journal of Aging & Social Policy, 35(1), 45-60.
[39] Liu, J., & Wang, Y. (2022). The influence of social factors on elderly care decisions in metropolitan China. Ageing & Society, 42(8), 1805-1823.
[40] Harrison, L., & Evans, S. (2022). Cultural and social determinants of elderly care in Latin America: An empirical study. Global Health Action, 15(2), 212-225.

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