Analyze the Correlation between Family Relationship and Health Promoting Lifestyle among Seniors in the Community

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ABSTRACT

To understand the personal background factors of study subjects, their current status of family relationship and health promoting lifestyle. To explore the relationship of personal background factors, family relationship of study subjects with their health promoting lifestyle.The population included 176 samples of the older people above 65 in Ren-Ai district, Keelung City, Taiwan. A self-designed structured questionnaire was used as our research tool. Our data were collected through both questionnaire and one-on-one interview, and then processed and analyzed by package software - IBM SPSS Statistics 23.0.The personal background factors that influenced the seniors' family relationship are age, gender, education degree, marriage, living status. The personal background factors that influenced the seniors' health promoting lifestyle are gender, living status. Family relationship has a significantly positive correlation with health promoting lifestyle..A health promoting lifestyle will help prevent diseases and promote health, and can improve the quality of life. From the results of this study, it can be seen that the relationship between the elderly and their families will affect the health promoting lifestyle. The older the elderly, the more they need to care about their family relationships. We need to pay more attention to the family relationships of illiterate elderly people, divorced or widowed elderly people and elderly people living alone. We need to encourage more male elderly people, elderly people living with spouse and elderly people living alone to implement health-promoting lifestyles.

Introduction

The elder's population has growing fast thanks to advanced medical technology and prolonging human average life. Taiwan's population is aging rapidly, In 2017, the elderly population over 65 years old accounted for 14%, entering the indicator of an elderly society; it is estimated that it will enter a super-aged society by 2025 [1]. The rapid growth of the elderly population has caused an impact on health care. With the increase in the health care needs of the elderly population, rising medical expenses, and the awakening of the elderly's awareness of health care, the health problems of the elderly have become an important issue in Taiwan's health care policy, and then formed Paying attention to the health promotion of the elderly and promoting the implementation of healthy behaviors for the elderly can not only reduce social expenditures on medical care, but also improve the quality of life of the elderly [2].

A health-promoting lifestyle is "a lifestyle in which the elderly maintain and enhance their health by improving their environment and habits, hoping to achieve optimal health and promote active aging." A healthy lifestyle refers to a series of behavioral patterns through which people can maintain and promote good health based on certain motivations, norms, abilities, increase health-related knowledge and relieve stress, which can be based on personal behavioral choices Healthy or unhealthy. Health patterns include leisure sports, nutrition, interpersonal relationships, psychological stress adjustment

and sleep. A health-promoting lifestyle is an important determinant of health status and is considered a major factor in maintaining and improving health. Modifiable health behaviors such as dietary habits, physical training, and smoking are major factors in the development of chronic diseases. Health is closely related to people's lifestyles in a broad social context [3]. Research by Japanese scholars shows that health promoting lifestyle behaviors are not only beneficial to disease prevention, but also improve life goals. Once they establish a healthy lifestyle in their daily lives, these people are likely to avoid lifestyle-related diseases. Explain that health-related lifestyle habits will help prevent disease and promote health to better understand the connection between health-related lifestyle behaviors and life purpose [4].

In recent years, the issue of the elderly has attracted more and more attention from the public. How to arrange and plan a health-promoting lifestyle so that people can live healthily and happily and enjoy old age, so that life has a sense of happiness and the extension of life is valuable. This has inspired researchers to explore Research motivations on family relationships and health-promoting lifestyles of the elderly. Based on the above considerations, our research has the following objectives:

(1) To understand the personal background factors of study subjects, their current status of family relationship and health promoting lifestyle.

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(2) To explore the relationship of personal background factors, family relationship of study subjects with their health promoting lifestyle.

Materials and Methods

1. Research Structure

Based on the study purpose and related papers, our research is structured as the following diagram (Figure 1), which helps to explore the connections between personal background.

2. Data Collection and Ethic Concerns

Purposive sampling selected participants from Ren-Ai District in Keelung City, Taiwan. A total of 178 seniors were as participants. The sampling was conducted under the approval of the Health Bureau of Ren-Ai District in Keelung City. All the research targets were the people over 65 without obvious body impairment. Qualified interviewers who received necessary trainings were appointed to conduct these one-on-one interviews with old people. All the interviewers have obtained the approval from the interviewees before the survey and then informed the interviewees that the data they collected would be used only for this research and would not be used for any other purpose. All the answers were collected anonymously and interviewees could quit the interview at any time if they did not feel comfortable.

3. Research Tools

The tool includes 3 scales. The expert validity of the questionnaire asked 2 nursing experts, 1 geriatric expert and 1 health education expert to review the content of each question in the questionnaire. This study used the content validity index (CVI) as an indicator of expert validity. For questions whose CVI value does not reach .8, the text should be modified according to the expert's review opinions and retained or deleted. Then the total CVI value of each question is divided by the number of questions of the scale. This questionnaire The CVI value of each scale ranges from .80 to .92. The explanation is as follows:

(1) Personal background: Including gender, age, marriage, education degree, and living status.

(2) Health promotion lifestyle scale

This scale has 24 questions in total, including six subscales: proper nutrition, sports and leisure, health responsibility, stress management, interpersonal support, and self-actualization. It is a four-point scale, with scores ranging from never, occasionally, often, and all the time, with scores ranging from 1 to 4 respectively. The higher the score, the more positive health promoting lifestyle. The Cronbach's α for the health promotion lifestyle scale was 0.85, and the intraclass correlation coefficient (ICC) was 0.83, indicating the reliability of the questionnaire.

(3) Family relationship scale

This scale has 10 questions in total, including 5 questions on "family communication" and 5 questions on "emotional support". The scoring method adopts a five-point Likert scale, ranging from never, rarely, sometimes, often and always; 1 point, 2 points, 3 points, 4 points, and 5 points are given in order. The higher the score, the more positive the family relationship is. The Cronbach's α for the family relationship scale was 0.88, and the intraclass correlation coefficient (ICC) was 0.86, indicating the reliability of the questionnaire.

4. Data Collection and Data Analysis

This research collected data through one-on-one interview. The data collected from the interview were coded, translated, and established. Next, the IBM SPSS software ver. 23.0 (IBM Corp., Armonk, NY, USA) was used for statistical data analysis. The statistical measures used were listed below:

(1) Descriptive statistics

a. To allocate the data of personal background of research targets by frequency and percentage.

b. To use average and standard deviation to analyze the distribution of family relationship and health promotion lifestyle.

(2) Inferential statistic

a. T-test, one-way ANOVA: To analyze the impact of different personal background factors on family relationship and health promotion lifestyle. When a significant difference was detected, Scheffé post-hoc comparison was conducted to analyze the differences among groups.

b. Pearson product-moment correlation analysis: To analyze the connection between family relationship and health promotion lifestyle.

All the statistic threshold tested by this research was set at $\alpha = .05$

Results

1. Distribution of personal background factors

Distribution of personal background factors of research subjects, the distribution of marital status showed that the majority were married (86.5%). Most of the living status are with three generations living under one roof (50%). There were 72 males (40.4%) and 106 females (59.6%). Most of the education degree is junior high school (3.8%). The average age is 72.9 （±9.1(Table 1).

2. Description of family relationship and health promoting lifestyle

The mean of health promotion lifestyle is 106.58(±18.45), which shows that the research subject's health promotion lifestyles are at a moderate level. The average value of family relations is 37.17 (±8.23), which shows that the research subject's family relations are at a moderate level.

3. Inferential statistic

According to table 2, the personal background factors that influenced the seniors' family relationship are age (r=-.56, P<.001), gender (t=5.51, p<.001), education degree (F=6.08, p<.05), marriage (F=2.59, p<.05), living status (F=23.19, p<.001). There is a significant negative correlation between age and family relationships. It can be seen that the older the research subjects are, the worse their family relationships are. Male have better family relationships than female. Those with grade school education have better family relationships than those who are illiterate. Married people have better family relationships than divorced/widowed people. Family members with three generations living under the same roof have better family relationships than those who live alone.

According to table 3, the personal background factors that influenced the seniors' health promoting lifestyle are gender (t=4.31, p<.05), living status (F=7.48, p<.001). Women have better health-promoting lifestyles than men. Family members with three generations living under the same roof have better health promoting lifestyle than those who living alone/living with spouse.

According to table 4, family relationship has a significantly positive correlation with health promoting lifestyle (r=.56, p < 0.01), suggesting that more family relationship would effectively help the elders to increase health promoting lifestyle.

Conclusions

A health promoting lifestyle will help prevent diseases and promote health, and can improve the quality of life. From the results of this study, it can be seen that the relationship

between the elderly and their families will affect the health promoting lifestyle. The older the elderly, the more they need to care about their family relationships. We need to pay more attention to the family relationships of illiterate elderly people, divorced or widowed elderly people and elderly people living alone. We need to encourage more male elderly people, elderly people living with spouse and elderly people living alone to implement health-promoting lifestyles.
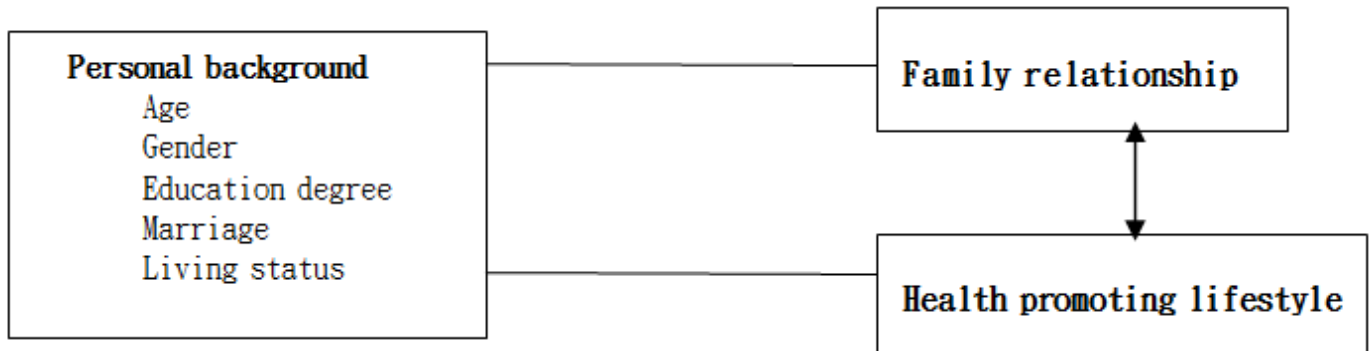

Figure 1. Research Structure

Table 1. Descriptive statistics of variables (n =178)

variables	No. of people	Distribution	
		%	Mean(±SD)
Age			72.9 （±9.1)
Gender			
male	72	40.4	
female	106	59.6	
Education degree			
illiterate	11	6.1	
grade school	53	29.8	
junior high school	78	43.8	
high school	36	20.3	
Marriage			
Married	154	86.5	
Divorced/ Widowed	22	12.4	
Unmarried	2	1.1	
Living status			
Living alone	15	8.7	
Living with spouse	55	30.7	
Living with children	19	10.6	
Three generations living under one roof	89	50.0	
family relationship			37.17 （±8.23)
health promoting lifestyle			106.58 （±18.45)

Table 2. Correlation Analysis of Personal Background Factors and Family Relationship (n =178)

Independent variables	No. of people	Correlation analysis			
		Family Relationship			
		Mean(±SD)	t/F	Post-hoc comparison	Correlation Coefficient
Age					-.56 **
Gender			5.51***		
male	72	38.82±6.96			
female	106	31.10±9.75			
Education degree			6.08*	2> 1	
1 illiterate	11	32.35±11.01			
2 grade school	53	39.82±5.80			
3 junior high school	78	38.88±9.97			
4 high school	36	39.10±5.93			
Marriage			2.59*	1> 2	
1 Married	154	37.85±8.01			
2 Divorced/ Widowed	22	30.40± 11.25			
3 Unmarried	2	35.60±6.16			
Living status			23.19***	4>1	
1 Living alone	15	26.16±10.93			
2 Living with spouse	55	33.18±9.38			
3 Living with children	19	39.10±4.97			
4 Three generations living under one roof	89	40.26±5.41			

* $p <0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 3. Correlation Analysis of Personal Background Factors and Health Promoting Lifestyle (n =178)

Independent variables	No. of people	Correlation analysis health promoting lifestyle			
		Mean(±SD)	t/F	Post-hoc comparison	Correlation Coefficient
Age					-.10
Gender			4.31*		
male	72	95.60±18.53			
female	106	109.55±17.39			
Education degree			1.14		
1 illiterate	11	102.17±27.81			
2 grade school	53	110.45±19.64			
3 junior high school	78	102.94±15.10			
4 high school	36	104.83±12.81			
Marriage			.82		
1 Married	154	107.20±19.16			
2 Divorced/ Widowed	22	96.80±9.24			
3 Unmarried	2	107.80±15.66			
Living status			7.48***	4>1.2	
1 Living alone	15	97.3750 19.19876			
2 Living with spouse	55	93.3636 7.03239			
3 Living with children	19	100.9750 13.33876			
4 Three generations living under one roof	89	112.9659 15.24094			

* p <0.05; ** p < 0.01; *** p < 0.001

Table 4. Correlated Matrix between family relationship and health promoting lifestyle (n =178)

	family relationship	health promoting lifestyle
family relationship	1	
health promoting lifestyle	.56**	1

** p < 0.01

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