



Older Adults' Yangsaeng (Oriental Health Management): A Systematic Review

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Abstract

Background: Recently, along with the increase of the older adult population, the necessity of health management in daily life is emerging, and interest in the traditional oriental health management method, Yangsaeng, is increasing. This study was to provide a basis for future oriental health promotion intervention research by analyzing previous studies related to the Yangsaeng (oriental health management) of the older adults.

Method: This study was a systematic review on older adults' Yangsaeng. The databases used for literature search for data collection include PubMed, Ovid MEDLINE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library (CDJR), Research Information Sharing Service (RISS), Oasis, Korean Studies Information Service System (KISS), and DataBase Periodical Information Academic (DBpia). Analysis of the status by year, subject characteristics, study types, research design methods, and variables related to older adults' Yangsaeng among previous studies related to older adults' Yangsaeng published in academic journals from 1990 to 2021 was performed.

Results: Eighteen quantitative studies related to the older adults' Yangsaeng have been published so far, and all of them were descriptive research studies using Yangsaeng measurement tool. The variables related to the older adults' Yangsaeng identified in this study were activities of daily living, self-efficacy, instrumental activities of daily living, perceived health state, self-esteem, empowerment, life satisfaction, physical function, quality of life, social support, anxiety, and depression.

Conclusion: The study will be helpful in the development of integrative and complementary interventions for health promotion of the older adults.

Keywords: Yangsaeng; Health management; Oriental health promotion; Holistic nursing

Introduction

Yangsaeng is an oriental health management that promotes disease-free longevity by strengthening the body and preventing diseases through different methods, such as emotional and mental stability, regularity of daily life and food intake,

healthy exercise, and restraint from sexual intercourse (1,2). That has been emphasized in oriental traditional medicine for thousands of years. Yangsaeng (oriental health management) behavior does not simply refer to an act of preventing



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disease, but is related to human lifestyle and attitude (2-4), and refers to the habitual implementation of health care behaviors in all dimensions of daily life (3,5,6).

Recently, along with the increase in the older adult population, the need for health care in daily life has been raised, and interest in Yangsaeng, a traditional oriental health care method, has likewise increased (7). Health problems in old age are often caused by wrong habits in living, eating habits, and lack of exercise in daily life (8). In addition, health problems are often considered simply as a characteristic of aging, leading to serious consequences such as worsening of the disease and death (9). Yangsaeng can be used in various ways depending on the type of constitution, life cycle, seasons and disease, etc. Thus, it can be a suitable health promotion plan for the older adults whose physical and mental functions have declined due to aging (10).

Although there are slight differences in each literature, the health care method of Yangsaeng is divided into morality yangsaeng, mind yangsaeng, diet yangsaeng, activity and rest yangsaeng, exercise yangsaeng, sleep yangsaeng, and seasonal, sexual life yangsaeng (11). As such in old age, physiological functions, such as jangbu (臟腑), qi (氣), blood (血), jing (精), and shen (神), naturally decline, while the ability to balance or control yin and yang is lower in oriental medicine (12). Thus, Yangsaeng suitable for the older adults must be classified and presented.

Due to the extension of human life expectancy, the issue of maintaining a healthy life and quality of life in old age is presented as a serious problem in global health care (7). Yangsaeng in the modern sense includes multi-dimensional behavioral patterns to improve the health of the older adults (3), and, as the purpose of Yangsaeng is for healthy longevity, the utilization of Yangsaeng in accordance with the life cycle could be an alternative to improving the quality of life in old age (5,6). In addition, given the nature of Yangsaeng that emphasizes interaction and harmony with the environment, if Yangsaeng is applied by reflecting climatic changes and environmental

characteristics, it will contribute highly to contemporary society's health care measures in countries other than those in the East (13). In fact, according to the statistics of the 'National Health Survey' conducted by the U.S National Institutes of Health, dietary supplements, yoga, tai chi, qigong, chiropractic, meditation, massage, and special diet, which accounted for a high percentage of the complementary and alternative therapies used by the general public, have a high correlation with Yangsaeng of oriental medicine (10,14).

Although there are several previous literature reviews on Yangsaeng, all of them were analyses on papers limited to one academic field, such as nursing or Korean medicine, or studies whose search scope was limited to Korean databases (13,15,16). To date, no studies that focus on older adults' Yangsaeng have been conducted. Moreover, most studies on Yangsaeng conducted so far are literature reviews and descriptive research studies (15). In order to conduct a wide range of studies, such as Yangsaeng program development studies and intervention studies, prior studies on factors affecting the older adults' Yangsaeng are needed.

Accordingly, we aimed to review the results of studies on older adults' Yangsaeng comprehensively through a systematic review on older adults' Yangsaeng, and to provide fundamental data for the development of the older adults' Yangsaeng program by analyzing the variables related to older adults' Yangsaeng.

Materials and Methods

Study design

This study was a systematic review that analyzes trends and results of previous studies on older adults' Yangsaeng (oriental health management). All methods were performed in accordance with the relevant guidelines and regulations (17).

Literature search strategy

This study was conducted on the papers on older adults' Yangsaeng published in academic journals

from 1990 to July 2021. The databases used for literature search for data collection include PubMed, Ovid MEDLINE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library (CDSR), Research Information Sharing Service (RISS), Oasis, Korean Studies Information Service System (KISS), and Data-Base Periodical Information Academic (DBpia). For search terms of databases except in South Korea, 'Yangsaeng', 'oriental health promotion', and 'health management' were used, and for search terms for Korean databases, '양생', 'Yangsaeng', and '養生' were used.

Literature selection process

The literature selection process involved a systematic search using database-recommended

terms, followed by a multi-step review. Researchers independently evaluated papers based on inclusion criteria (studies on older adults aged 60+, evaluations of Yangsaeng-related variables, and descriptive or experimental research) and exclusion criteria (irrelevant topics, mixed-age populations, theses, and non-English/Korean studies). Initially, 1,712 papers were identified, narrowed to 214 by title review. After abstract evaluations, 32 papers were selected. A secondary review excluded qualitative studies, literature reviews, conceptual analyses, and uncontrolled experimental studies, leaving 18 final studies (Fig. 1). Researchers ensured accuracy by reviewing full texts and resolving disagreements with expert input from a nursing professor. Final selections were made through consensus among all authors.

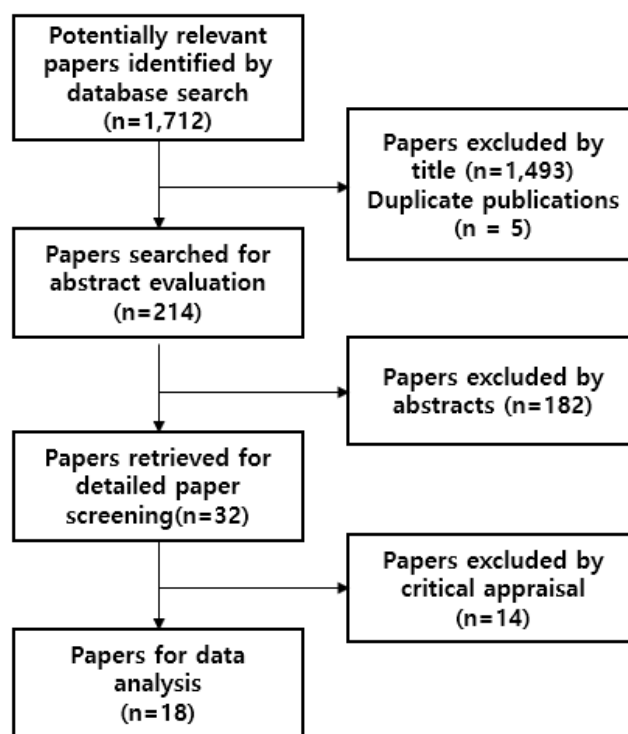


Fig. 1: Flow chart of subject selection

Assessment of the quality of literature

The quality of literature selected for this study was critically reviewed by using the critical review form (18) in evaluating the quality of quantitative research. Assessment of the quality of literature

was conducted independently by three researchers, and then the differences between the reviewers were adjusted and analyzed through a meeting. The critical review form is designed to answer 16 items for evaluation with 'Yes/No/Not applica-

ble', including the study purpose, relevant background literature, quantitative study design, detailed sample description, sample size calculation, reliable outcome measure, valid outcome measure, detailed intervention description, avoid contamination, avoid cointervention, reporting of significant results, appropriate analysis method, clinical importance, drop-out rate, appropriate conclusion, and overall quality of the paper. All 18 selected literatures had clear study purpose, literature review, study design, study subjects, measurement variables, statistics, study results, conclusions, and clinical significance. Moreover, there were no experimental or interventional studies among the 18 selected studies, and all pa-

pers were descriptive research studies. Therefore, for which three experimental intervention items were not applicable among the evaluation items, but they presented a specific data collection process. Seven papers provided the rationale for the calculation of the sample size, and except for one of the studies published after 2011; all provided the rationale for the sample size calculation. The sample size of the remaining 11 studies that did not provide a rationale for calculating the sample size was 131 to 824. Of these, 9 studies had a large enough sample size with 200 or more, so the overall quality of the papers selected for analysis was high (Table 1).

Table 1: Evaluation of the quality of 18 papers using the critical review form

Reference number	5	6	7	12	19	21	22	23	24	29	30	31	32	33	34	35	36	37
Variables																		
Study purpose	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Relevant background literature	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Quantitative study design	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Detailed sample description	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sample size calculation	Y	Y	Y	Y	Y	N	Y	N	N	N	N	N	N	N	N	N	N	Y
Reliable outcome measure	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Valid outcome measure	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Detailed intervention description	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Avoid contamination	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Avoid cointervention	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reporting of significant results	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Appropriate analysis method	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Clinical importance	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Drop-out rate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Appropriate conclusion	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Overall quality of the papers	High	High	High	High	High	High	High	High	Medium-high	High	High	High	High	High	Medium-high	High	High	High

Y = yes (does exist), N = no (doesn't exist), N/A = non-applicable

Reference number = the number in the reference list of the 18 papers that were included in the systematic review for this paper.

Data analysis

For the analysis of the papers, the characteristics of the variables were systematically extracted by using a structured coding table. The coding table consists of publication year, theoretical framework, study design, subject characteristics, sample size, intervention method, dependent variable, intervention effect, Yangsaeng score, measurement variables, and the results of studies by using Yangsaeng. Data were analyzed by frequency and percentage. Analysis was limited to descriptive studies, as interventional or experimental studies were not included, and meta-analysis of effect sizes could not be performed.

Results

General characteristics of subjects and characteristics related to research methodology

The study included 18 papers on older adults' Yangsaeng from 1990 to 2021. No papers were published before 2000; 55.6% were from 2001-2010, and 44.4% from 2010-2021. Only 16.7% used a theoretical framework, and all employed descriptive research with a Yangsaeng tool. Subjects were mostly defined as aged 65+, with 72.2% targeting both genders, 22.2% only women, and 5.6% only men. Most studies (44.4%) involved 501-1000 subjects. All research was conducted in Korea, except one in China, affecting generalizability (Table 2 and Table 3).

Table 2: General characteristics of subjects

Variables		Categories	n (%)
General characteristics	Publication year	2001 ~ 2010	10 (55.6)
		2011 ~ 2021	8 (44.4)
	Use of theoretical framework	Yes	3 (16.7)
		No	15 (83.3)
Research methodology	Type of study	Descriptive study	17 (94.4)
		Path model	1 (5.6)
	Subject group	Seniors over 60	1 (5.6)
		Seniors over 65	17 (94.4)
	Gender	Male	1 (5.6)
		Female	4 (22.2)
		Male & Female	13 (72.2)
	Total sample size	101~200	3 (16.7)
		201~300	5 (27.8)
		301~500	2 (11.1)
		501~1,000	8 (44.4)

Table 3: Characteristics related to research methodology

Reference number	Study participant		Yangsaeng				Outcome (Related variable)
	Gender	Country	Tool* (reference number)	Reliability	Mean \pm SD	Scale/ The number of tool questions	
5	Male & female	Korea	(11)	Cronbach's α =.96	3.56 \pm 0.80	5 / 31	Perceived health state, Self-esteem, Self-efficacy
6	Female	Korea	(11)	Cronbach's α =.95	109.33 \pm 25.41	5 / 31	Perceived health state, Self-esteem, Self-efficacy
7	Male & female	Korea	(11)	Cronbach's α =.86	89.14 \pm 5.32~ 90.44 \pm 4.97	5 / 31	Yangsaeng
12	Male & female	Korea	(11)	Cronbach's α =.91	100.62 (3.25) \pm 16.20 (0.52)	5 / 31	Social support Quality of life
19	Male & female	Korea	(11)	Cronbach's α =.91	109.88 \pm 18.19	5 / 31	Depression, Empowerment
21	Male & female	Korea	(11)	Cronbach's α = 0.90	N	5 / 29	Life satisfaction, K-ADL, K-IADL
22	Female	Korea	(11)	Cronbach's α =.96	3.52 \pm 0.81	5 / 31	ADL, IADL
23	Male & female	Korea	(11)	Cronbach's α =.95	3.54 \pm 0.06	5 / 31	Physical function
24	Female	Korea	(11)	N	81.78 \pm 10.08~ 90.10 \pm 9.57	5 / 28	Depression, Anxiety, MMSE-K
29	Male & female	Korea	(11)	Cronbach's α = 0.68~0.82	98.04 (3.27) \pm 14.15 (0.47)	5 / 30	Yangsaeng
30	Male & female	Korea	(11)	Cronbach's α = 0.91	90.93 \pm 14.38	5 / 28	Perception of health
31	Male & female	Korea	(11)	Cronbach's α = 0.68~0.82	97.14 (3.24) \pm 17.37 (0.58)	5 / 30	Yangsaeng
32	Male & female	China	(11)	Cronbach's α = 0.70~0.93	N	5 / 28	Yangsaeng
33	Male & female	Korea	(11)	Cronbach's α = 0.75~0.91	94.20 (3.25) \pm 14.73	5 / 29	Yangsaeng
34	Female	Korea	(11)	Cronbach's α = 0.77	3.08 \pm 0.33	5 / 31	Yangsaeng
35	Male & female	Korea	(11)	N	100.61 \pm 16.08	5 / 31	Yangsaeng
36	Male & female	Korea	(11)	Cronbach's α =.92	106.68 \pm 16.33	5 / 31	Yangsaeng
37	Male	Korea	(11)	Cronbach's α =.95	3.46 \pm 0.80	5 / 31	ADL, IADL Self-efficacy

* Name of the researcher and year of development of the Yangsaeng measurement tool (Kim, 2004)

Scores for each sub-dimension of Yangsaeng

For all 18 papers selected, Kim's Yangsaeng scale (11) was used as measurement variables for the older adults' Yangsaeng behavior. Kim's Yangsaeng behavior scale (11) is divided into 8 sub-dimensions: morality, mind, diet, activity and rest,

exercise, sleep, season, and sexual life. Nine out of 18 papers presented the scores for each sub-dimension. Among them, in 7 papers (77.8%), the morality yangsaeng showed the highest score, and sexual life yangsaeng showed the lowest score in 7 papers (77.8%) (Table 4).

Table 4: Scores for each sub-dimension of Yangsaeng

Reference number	Yangsaeng								The highest score part	The lowest score part
	Morality Mean (SD)	Mind Mean (SD)	Diet Mean (SD)	Activity & rest Mean (SD)	Exercise Mean (SD)	Sleep Mean (SD)	Season Mean (SD)	Sexual life Mean (SD)		
5	3.86 (0.74)	3.46 (0.99)	3.53 (0.98)	3.83 (1.01)	3.35 (1.04)	2.51 (0.78)	3.38 (0.94)	3.09 (1.15)	Morality	Sleep
12	3.57 (0.80)	3.27 (0.77)	3.28 (0.79)	3.40 (0.70)	2.84 (0.92)	3.44 (0.70)	3.04 (0.75)	2.76 (0.97)	Morality	Sexual life
22	3.89 (0.72)	3.41 (0.99)	3.51 (1.04)	3.82 (1.03)	3.22 (1.05)	3.61 (1.01)	3.36 (0.93)	3.03 (1.21)	Morality	Sexual life
29	3.78 (0.72)	3.29 (0.75)	3.30 (0.66)	3.79 (0.68)	2.32 (1.05)	3.72 (0.64)	2.95 (0.66)	1.81 (1.06)	Activity & rest	Sexual life
31	3.79 (0.84)	3.25 (0.94)	3.25 (0.73)	3.74 (0.86)	2.12 (0.93)	3.73 (0.82)	2.88 (0.99)	1.95 (1.15)	Morality	Sexual life
33	3.79	3.29	3.30	3.76	2.28	3.74	2.93	1.25	Morality	Sexual life
34	3.50 (0.42)	3.29 (0.64)	3.05 (0.54)	3.55 (0.46)	2.66 (0.94)	3.17 (0.61)	2.43 (0.75)	2.44 (1.75)	Activity & rest	Season
35	3.63 (0.85)	3.42 (0.84)	3.23 (0.72)	3.33 (0.82)	3.00 (0.81)	3.17 (0.71)	3.07 (0.69)	2.80 (0.73)	Morality	Sexual life
37	3.72 (0.75)	3.39 (1.00)	3.35 (0.97)	3.61 (1.04)	3.36 (1.00)	3.59 (0.98)	3.27 (0.94)	3.20 (0.98)	Morality	Sexual life

Outcomes of variables related to older adults' Yangsaeng

The older adults' Yangsaeng practice had a positive correlation with activities of daily living (ADL), self-efficacy, instrumental activities of daily living (IADL), perceived health state, self-esteem, empowerment, life satisfaction, physical function, quality of life, and social support. It had a negative correlation with anxiety and depression.

First, among the measurement variables whose correlation with the degree of Yangsaeng were confirmed, self-efficacy ($r = 0.74 \sim 0.79$), perceived health state ($r = 0.79$), and self-esteem ($r = 0.81$) showed a strong positive correlation with

older adults' Yangsaeng. In a step-by-step regression analysis, self-efficacy, perceived health state, and self-esteem all had a significant effect on the older adults' Yangsaeng behavior. In addition, in the path model, self-efficacy, perceived health state, and self-esteem had a significant direct effect on the Yangsaeng behavior of older adult women. ADL ($r = 0.48 \sim 0.57$), IADL ($r = 0.58 \sim 0.61$), empowerment ($r = 0.35$), physical function ($r = 0.45$), quality of life ($r = 0.56$), and social support ($r = 0.56$) showed a moderate correlation with Yangsaeng. Because of the step-by-step regression analysis, ADL, IADL, and life satisfaction had a significant effect on the Yangsaeng behavior of the older adults. Anxiety ($r = -$

0.29 ~ 0.35) and depression ($r = -0.25 \sim -0.28$) older adults' Yangsaeng practice (Table 5).
 were found to have negative correlations with the

Table 5: Outcomes of variables related to older adults' Yangsaeng

Positive variables					
Variables	<i>n</i> (%)	Reference number	Tool*	Statistic methods	Reported outcomes
ADL	3 (15.7)	21	Won et al. (2002)	Step multiple regression	$\beta = -0.25, P < 0.05$
		22	Katz, Ford, Moskowitz, Jackson & Jaffe (1963)	Correlation coefficients	$r = 0.48, P < 0.001$
		37	Katz, Ford, Moskowitz, Jackson & Jaffe (1963)	Correlation Step multiple regression	$r = 0.57, P < 0.001$ $\beta = 0.22, P < 0.001$
Self-efficacy	3 (15.7)	5	Sherer & Maddux (1982)	Correlation Step multiple regression	$r = 0.74, P < 0.001$ $\beta = 0.22, P < 0.001$
		6	Sherer & Maddux (1982)	Path model	$\beta = 0.12, P = 0.002$
		37	Sherer & Maddux (1982)	Correlation Step multiple regression	$r = 0.79, P < 0.001$ $\beta = 0.53, P < 0.001$
IADL	2 (10.5)	22	Lawton & Brody (1969)	Correlation coefficients	$r = 0.61, P < 0.001$
		37	Lawton & Brody (1969)	Correlation Step multiple regression	$r = 0.58, P < 0.001$ $\beta = 0.18, P < 0.001$
Perceived health state	2 (10.5)	5	Speake, Cowart & Pellet (1989)	Correlation coefficients Step multiple regression	$r = 0.79, P < 0.001$ $\beta = 0.33, P < 0.001$
		6	Speake, Cowart & Pellet (1989)	Path model	$\beta = 0.28, P < 0.001$
Self esteem	2 (10.5)	5	Rosenberg (1965)	Correlation coefficients Step multiple regression	$r = 0.81, P < 0.001$ $\beta = 0.42, P < 0.001$
		6	Rosenberg (1965)	Correlation coefficients Step multiple regression	$\beta = 0.39, P < 0.001$
Empowerment	1 (5.2)	19	Kim (2000)	Correlation coefficients	$r = 0.35, P < 0.001$
Life	1 (5.2)	21	Choi (1986)	Step multiple re-	$\beta = 0.39, P <$

Table 5: Continued...

satisfaction				gression	0.05
Physical function	1 (5.2)	23	William, Margaret, & Richard (2002), Rowe & Kahn (1998), Lee (2007), Kim (2001)	Correlation Coefficients	$r = 0.45, P < 0.001$
Quality of life	1 (5.2)	12	Min, Lee, Kim, Seo & Kim (2000)	Correlation Coefficients	$r = 0.56, P < 0.001$
Social support	1 (5.2)	12	Park (1985)	Correlation Coefficients	$r = 0.56, P < 0.001$
Negative variables					
Anxiety	1 (5.2)	24	Jung et al. (1997)	Correlation Coefficients	Anxiety (STAI-S) $r = -0.25, P < 0.01$ Anxiety (STAI-T) $r = -0.28, P < 0.01$
Depression	2 (10.5)	19	Yesavage et al. (1983)	Correlation Coefficients	$r = -0.35, P < 0.001$
		24	Spielberger et al. (1970)	Correlation Coefficients	$r = -0.29, P < 0.01$

* Name of the researcher and year of development of the measurement tool

Reference number = the number in the reference list of the 18 papers that were included in the systematic review for this paper.

Discussions

Prior to 2000, most studies on older adults' Yangsaeng were reviews of the old literature, but after Kim's Yangsaeng scale (11) was published, clinical studies using the scale began to be conducted. To date, 18 quantitative studies on older adults' Yangsaeng has been published. Of these, 18 studies were all research studies that used Kim's Yangsaeng scale (11). Therefore, it is difficult to say that research on the older adults' Yangsaeng has been sufficiently conducted in various fields. In particular, considering that there is only one scale for measuring the level of Yangsaeng used in Yangsaeng research, and that most studies are literature reviews and survey research, in order to increase the usefulness of the Yangsaeng method in the future, it is necessary to conduct various studies, such as experimental research and Yangsaeng program development. Because of analyzing 9 studies that presented the

subcategory scores of older adults' Yangsaeng, the score of morality was highest in 7 papers. Considering Kim's study (11) for the development of Yangsaeng scale showing that morality had the highest explanatory power, this result indicated that morality is the most important Yangsaeng behavior in the older adults. Morality is an aspect of mental health care that is inherent in a unique oriental culture that includes fairness, generosity, positive thinking, and a willingness to be happy (11). In Donguibogam, an ancient Korean medicine literature, it is said that nurturing the mind is the basis of Yangsaeng. Therefore, it is considered that morality is the result of the health-related wisdom of the older adults who want to have a good and generous heart. In addition, the lowest score was found for Sexual life Yangsaeng. The reason for this is that East Asian countries, especially Korea and China, have a strong Confucian culture, and sexual life is a hidden, cautious, and unexpressed lifestyle (3,15,16).

Therefore, it is inferred that the low score for Sexual life Yangsaeng may have been due to socio-cultural or psychological factors related to sexual life.

The relevant variables of older adults' Yangsaeng confirmed in this study include ADL, self-efficacy, IADL, perceived health state, self-esteem, empowerment, life satisfaction, physical function, quality of life, social support, anxiety, and depression. Among them, ADL, self-efficacy, IADL, perceived health state, self-esteem, empowerment, life satisfaction, physical function, quality of life, and social support had a positive correlation with the older adults' Yangsaeng, although there was a difference in the degree of correlation and significance level, depending on the paper (5,6,16,19-23). Anxiety and depression also differed in the degree of correlation and significance level depending on the paper, but they had a negative correlation (19,24). Through this correlation, it was confirmed that the older adults who practice the Yangsaeng method better in their daily lives had better perceived health state and physical function, as well as the ADL, and had higher self-esteem and self-efficacy. Furthermore, the older adults can maintain life satisfaction and quality of life through consistent practice of Yangsaeng, such as a harmonious life, in accordance with the environment, a positive attitude to life in daily life, food intake, activity, rest and sleep, and restraint in sexual life. It is possible to cope properly with anxiety and depression among the older adults through a positive and correct mindset. Moreover, as variables related to older adults' Yangsaeng, self-efficacy ($r = 0.74 \sim 0.79$), perceived health state ($r = 0.79$), and self-esteem ($r = 0.81$), which were influencing factors of health promotion behavior in Pender's health promotion behavior (25), showed a strong positive correlation with the older adults' Yangsaeng, had a significant effect on the older adults' Yangsaeng behavior, and showed a direct effect on Yangsaeng, the health promotion behavior of the East. In fact, when looking at the studies conducted to date, in 3 out of 18 papers, a theoretical framework was applied, and in two of them, Pender's health promotion behavior (25)

was applied. Accordingly, Yangsaeng can be seen as a concept similar to Western health promotion behaviors (25) that promote preventive health care before the onset of disease, and pursue a better level of health and well-being through changes in individual lifestyles and habits, or environments (5,6). Based on the results of this study, when developing and applying a program for the older adults' Yangsaeng, factors such as growth, sustainable self-efficacy, perceived health state, and self-esteem should be considered, rather than demographic factors, which are difficult to change artificially, along with strategies for self-improvement.

The Yangsaeng method that suggests life and behavior that can be practiced in daily life can be a new alternative to enjoy healthy longevity and improve the quality of life of the older adults. However, studies on Yangsaeng are mainly confined to the East, and the measurement tools to verify this are limited. Of course, considering the fact that Yangsaeng based on the basic theory of oriental medicine has been used in the East for a long time, such a result can be natural. However, as the importance of a healthy lifestyle is being emphasized due to the extension of the human lifespan today, the study on Yangsaeng, which suggests activities for healthy longevity, has realistic significance (26-28). From now on, by conducting an evaluation of the level of Yangsaeng before and after the application of Yangsaeng-related interventions, such as diet, qigong, meditation, and massage, which are currently being actively conducted in Eastern and Western countries, a foundational study for the composition of a Yangsaeng program should be conducted in the future. In particular, since various physiological changes occur during old age, it is necessary to emphasize a Yangsaeng method that delays aging, and a Yangsaeng intervention that can prevent geriatric diseases and promote health and recovery should be selected. In addition, further research on Yangsaeng-related program development and Yangsaeng interventions are needed. Furthermore, Yangsaeng can be established as a unique Yangsaeng of a country or society by adapting and validating it to the culture in various

contexts, and for this purpose, cross-cultural validation studies should be attempted (24,28). Through this, Yangsaeng's health management method can be used in countries other than the East, and this will ultimately contribute to the promotion of health, extension of life span, and improvement of quality of life of the older adults.

Study limitations

This study has its significance in that this systematic review provides insights and understanding into the traditional oriental health management method, older adults' Yangsaeng in the increase of the older adult population. Nurses can imply and address the sub-dimension of older adults' Yangsaeng for promoting the older adult health in nursing practice. Nurses in global community may pay attention to older adults' Yangsaeng to improve holistic health state of older adult in daily life.

Only descriptive research has been conducted so far, that research has been conducted only in the Asian region (Korea and China), and the inability to have perfectly consistent follow-up may be limitations of the study.

Conclusion

With the recent increase in the older adult population and the formation of a culture that emphasizes well-being and quality of life in old age, Yangsaeng, an oriental health care method that pursues holistic health, has been considered important.

In this study, the characteristics of studies on older adults' Yangsaeng to date were examined through a systematic review of studies that applied older adults' Yangsaeng mainly in academic journals. Yangsaeng is a health promotion behavior and nursing intervention, referring to all activities that increase lifespan by preventing disease and increasing the quality of life along with improving human health. Accordingly, it is possible to develop various health promotion interventions such as mind meditation, diet, activity and rest, exercise, and sleeping methods that can be

easily practiced in daily life and it will be helpful in the development of complementary and alternative interventions. Therefore, it is necessary to develop a program that uses Yangsaeng and apply it to nursing intervention, as well as research (e.g., randomized trials, cross-cultural validations) from various fields that use it. Likewise, it is expected that Yangsaeng can be utilized in various cultures and environments.

Journalism Ethics considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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Declaration of Conflicting Interests

The authors declare no potential conflicts of interest.

References

1. Kim KH, Ko SG, Park HM, et al (2016). Yangsaeng (3rd). Seoul, Gyechuk.
2. Kim AJ (2008). QQL-BREF and Yangsaeng in Korean adult. *J East West Nurs Res*, 14(2): 8-15.
3. Gu MK (2019). A conceptual analysis of Korean elders Yangsaeng in nursing. *J Korean Acad Commun Health Nurs*, 30(1): 1-10.
4. Jeong CH, Baik YS, Wie BY, et al (2016). The Jing-Qi-Shen cultivation method and its characteristic of Donguibogam. *J Korean Med Classics*, 30(1): 135-144.
5. Park YS, Seo DS, Kwon Y (2011). Factors influencing Yangsaeng in elders (Yangsaeng; traditional oriental health promotion). *J Korean Acad Nurs*, 41(1): 72-79.

6. Park YS, Lee HY, Kwon YH (2011a). Validation of a path model on elderly women's Yangsaeng (Yangsaeng; 養生; traditional oriental health promotion). *J Korean Acad Commun Health Nurs*, 22(3): 325-332.
7. Kim JS, Sok SR (2012). A study on Yangsaeng (health management) of Korean older adults by 4 constitution types. *Holist Nurs Pract*, 26(6): 317-325.
8. Seo EH (2019). Effects of chronic disease control and prevention education program on the dietary habits and nutrition intakes of elderly. *J Korea Soc Wellness*, 14(2): 235-251.
9. Touhy TA, Jett KF (2020). Ebersole & Hess' toward healthy aging human needs and nursing response (10th ed.). St. Louis. MO, Elsevier Mosby.
10. Kim CH, Lim BM, Park HM, et al (2015). The new category system of Yangseng for Korean medicine. *J Oriental Med Prevent*, 19(1): 23-28.
11. Kim AJ (2004). Development of a tool in measuring Yangsaeng (traditional oriental health promotion; YS-TOHP). *J Korean Acad Nurs*, 34(5): 729-738.
12. Kim EY, Park YS (2016). Relationships among social support, Yangsaeng and quality of life in elderly people. *Keimyung J Nurs Sci*, 20(2): 33-45.
13. Han CH, Kwon OM, Park HJ, et al (2012). Literature review about Yangseng studies in Korean oriental medicine. *Korean J Oriental Med*, 18(3): 39-45.
14. Clarke TC, Black LI, Stussman BJ, et al (2015). Trends in the use of complementary health approached among adults: United States, 2002-2012. *Natl Health Stat Report*, (79): 1-16.
15. Kim AJ, Park JS (2017). A systematic review of domestic nursing research related to Yangsaeng. *Health Nurs*, 29(2): 11-24.
16. Kim YY, Park HJ, Jang ES (2016). A trend analysis of the journal of Korean nursing research related with Yangsaeng. *J East-West Nurs Res*, 22(1): 10-16.
17. Page MJ, McKenzie JE, Bossuyt PM, et al (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372: n71.
18. Law M, Steward D, Pollock N, et al (1998). Critical review form-Quantitative studies. [cited 2021 August 16].
19. Kang JS, Shin MK (2012). The empowerment and Yangsaeng according to depression for the elderly. *J Korean Gerontol Soc*, 32(4): 1137-1146.
20. Kwag OG, Kwon YH (2013). A study on daily living abilities, self-efficacy and Yangsaeng behavior in elderly men (Yangsaeng; traditional oriental health promotion). *J Korean Acad Commun Health Nurs*, 24(1): 11-19.
21. Kwon SH, Lee KN (2006). A study on factors affecting the level of Yangseng of certain elderly people. *J Korean Med*, 27(1): 104-117.
22. Park YS, Lee HY, Kwon YH (2011b). Relationship between daily life performance ability and Yangsaeng in elderly women (Yangsaeng; traditional oriental health promotion). *J Korean Gerontol Nurs*, 13(3): 163-171.
23. Wang MJ (2010). Relationship among Yangsaeng, activities of daily living, and physical function in Korean elders. *J East-West Nurs Res*, 16(1): 19-25.
24. Kang HC (2014). A study on comparison of Yangseng (traditional health behavior), depression, anxiety and cognitive function between the elderly women living alone and the aged in the living with family. *Korean Soc Orient Neuropsychiatr*, 25(2): 123-131.
25. Pender NJ (1996). Health promotion and nursing (3rd). Norwalk, CT: Appleton & Lange.
26. Yi SJ, Kim AK (2004). Factors influencing Yangsaeng in middle aged women. *J Korean Acad Fundamen Nurs*, 21(1): 39-47.
27. Ahn HM, Kim SS, Kim WG, et al (2007). A study on the relations between Yangseng level and stress in industrial workers. *J Med Gi-Gong*, 10(1): 100-129.
28. Shin SH, Kang HS, Shin SH, Lee JW (2020). Conceptual analysis of Yangsaeng. *J Korea Acad-Indust Cooperat Soc*, 21(7): 435-445.
29. Choi EK, Kwon SH, Kim AJ, et al (2005). Relationship between actual health and Yangsaeng of the elderly in urbanites-focused on certain parts of urban areas in Jeonbuk province-. *J Korean Qigong Med Soc*, 8(1): 96-114.
30. Kim JH, Kwon SH, Kim AJ, et al (2005). Level of Yangseng by certain elderly people in connection with their perception of health. *J Korean Qigong Med Soc*, 8(1): 115-127.
31. Moon SY, Chong MS, Seo MH, et al (2005). Relationship between actual health and Yangsaeng of the elderly in rural areas - focused on

- certain parts of rural areas in Jeonbuk province-. *J Orient Med Prevent*, 9(2): 1-16
32. Pi CM, Shin CH, Jeong SC, et al (2006). Evaluation of the level of Yangseng by certain elderly people in dalian, China. *J Orient Med Prevent*, 10(1): 93-107.
 33. Chong DS, Chong MS, Lee KN (2007). A comparison of influencing factors on Yangsaeng level in urban and rural elderly. *J Orient Med Prevent*, 15(1): 17-27.
 34. Jung HY, Park HS, Park S (2009). Study on Yangsaeng for health promotion of aged women. *J Korean Acad Commun Health Nurs*, 20(1): 49-58.
 35. Kim LH, Kim YH, Ahn OK (2009). Relationship of actual health and Yangseng in the urban elderly. *J Orient Neuropsychiatr*, 20(4): 53-61.
 36. Cha NH (2010). A study on Yangsaeng in Korean elders. *J Korean Acad Commun Health Nurs*, 21(3): 293-302.
 37. Kwag OG, Kwon YH (2013). A study on daily living abilities, self-efficacy and Yangsaeng behavior in elderly men (Yangsang; traditional oriental health promotion). *J Korean Acad Commun Health Nurs*, 24(1): 11-19.