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ASEAN Senior Citizen Quality of Life Factors: A Meta-Analysis

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Abstract

From Europe to Asia, aging populations have become a topic of broad concern, especially in nations such as Japan, where the growth of senior citizens and lack of new births threaten national survival (28.7% of its citizens are 65 or older). As such, aging populations and their quality-of-life (QoL) issues have profound implications for public health and social welfare. Given this significance, the authors investigated ASEAN senior citizen QoL studies from English language articles published in international journals between January 2006 and December 2021. The research explored relationships and utilized non-experimental research designs, employing questionnaires for data collection. Descriptive statistics, effect size, t-tests for Independent Samples, ANOVA, and multiple regression were used to analyze the data. Results revealed that of the 108 identified research studies concerning ASEAN senior citizen quality of life, 33.3% had originated in Malaysia, with another 23.15% from Thailand. Quality-related research characteristics (problem identification, literature review, related research, and data collection) had statistically significant positive effects on effect size, with all variables together explaining 60.80% of the variation in effect size. From the study's 22 assessment items, 'The process for collecting information is clear and appropriate' ranked highest. This was followed by 'The population and sample size were identified and calculated appropriately'. However, somewhat shockingly, 'The hypotheses are correct and clear according to standard research principles' was judged very poor. The study's findings serve as guidelines for further developing research related to senior citizens, ensuring continuous quality improvement. This study makes a significant contribution to ASEAN senior citizen QoL research.

KEYWORDS: ASEAN Elderly, Malaysia, Meta-Analysis; Quality of Life (QoL), Senior Citizens, Thailand.

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INTRODUCTION

Regardless of where you reside, there is a global trend in developed and developing nations concerning their aging populations, with profound implications for public health and social welfare (Arjuna et al., 2017; Sazlina et al., 2012). In 2019 it was reported that there were nearly 47 million older individuals (65 or above) in ASEAN (Association of Southeast Asian Nations) nations and 703 million worldwide, which is expected to double by 2050 (Jia et al., 2023).

However, this trend is particularly salient in countries within the ASEAN region, which requires investing in understanding senior citizens' quality of life (QoL) for informed policy-making purposes (Hoi et al., 2011; Nguyen et al., 2018). Therefore, this study sought to effectively synthesize existing research findings on older individuals' QoL across all ASEAN nations.

Quality of life can be evaluated using various dimensions/explicit factors that promote good physical health, mental well-being, and social integration/environmental well-being (Linh et al., 2020; Onunkwor et al., 2016; Yurayat & Tuklang, 2023). For senior citizens to have a life preference, their QoL must be considered by evaluating multiple study findings systematically so that adaptability is made possible among them. Evaluating multiple pieces of research provides valuable insight into factors impacting their QoL, mainly if based on multiple aspects that affect it holistically since it is not monolithic inclusive.

Furthermore, numerous studies on the QoL of ASEAN's senior citizens have investigated various topics, including health sciences (Zimmer, 2008), science and technology, education, social sciences, and humanities (Tiraphat et al., 2021). However, there are research synthesis methods that follow scientific research protocols. Synthetic research differs from general research regarding data characteristics and data analysis methods. In general research, researchers analyze data to describe and infer conclusions about the population based on data collected from a sample or population.

On the other hand, synthetic research consists of multiple research reports studying the same problem, using different measurement variables, research designs, and data analysis methods. In analyzing research results, standard indices are created from each research study to standardize them before synthesizing the standardized indices to obtain conclusions for all population groups.

Meta-analysis is one type of synthetic research used in quantitative research to synthesize multiple research studies on the same problem using statistical methods (Kojima et al., 2016). Data for meta-analysis consists of research findings in the form of effect sizes and research characteristics. The unique characteristic of meta-analysis is that it

analyzes research findings from multiple studies in effect sizes and compares the effect sizes from different research studies based on research characteristics (Sella et al., 2021). This increases the reliability of the results of synthetic research since data analysis is a systematic method that can handle a large number of research syntheses.

Therefore, the authors applied synthetic research to study research related to the ASEAN senior citizen QoL issues (Fakhruddin et al., 2019). This research is based on experimental and correlational research published in international journals in English from January 2006 to December 2021. The research reports have provided sufficient statistical data for estimating standardized indices to be synthesized through meta-analysis (To et al., 2022). This research covers research in science and technology, health sciences, education, humanities, and social sciences. It aims to synthesize the findings from multiple research studies and apply them to investigations concerning ASEAN senior citizen QoL factors.

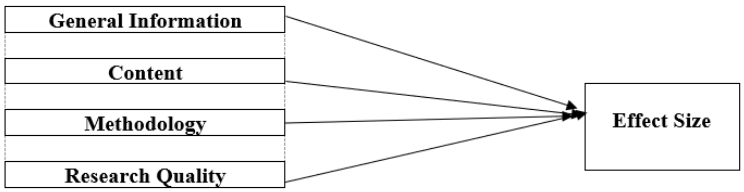
Research Objectives

1) To explore published research on ASEAN senior citizen quality of life issues.

2) To synthesize the research on the ASEAN senior citizen QoL using a meta-analysis.

3) To identify which factors are significant in QoL studies.

Figure 1: The Conceptual Framework.



META-ANALYSIS CONCEPTUAL FRAMEWORK

The authors reviewed the literature and research using a meta-analysis and concepts from Glass et al. (1981) and Hunter et al. (1986). The variables in the study included the following:

Research Population and Sample

The sample was identified from a population of experimental and correlational studies published in international journals in English between January 2006 and December 2021. The research focused on articles researching ASEAN senior citizen quality of life issues. The statistical values were sufficient for estimating the standardized index to synthesize research with meta-analysis and cover research in

science and technology, health sciences, education, humanities, and the social sciences. The final sample was determined to be 108 articles.

Research Tools

The authors made use of two primary research tools. These included:

1. A research characteristic record form used the Index of Item Objective Congruence (IOC) to confirm questionnaire item inclusion when their scores were from 0.60 - 1.00. Further evaluation later determined that the reliability between assessors was 0.88 (Ditsuwan & Sukkamart, 2022).

2. A research quality assessment form used IOC items ranging from 0.60 - 1.00, with a mean value between assessors = 0.91.

Research Methods and Information Collection

The research methodology and data collection process are conducted in three steps as follows:

Step 1: Research survey and compilation

This step involves surveying and collecting research on the studies related to the ASEAN's senior citizen QoL: It includes:

1. Surveying and gathering existing research papers.

2. Assessing the quality and selecting appropriate research works.

3. Recording data for research synthesis.

4. Conducting preliminary data analysis.

Step 2: Research analysis

This step focuses on analyzing the research on the QoL among ASEAN senior citizens using statistical analysis methods.

Data Analysis

1. Descriptive statistics were used in analyzing primary data, including the arithmetic mean and standard deviation (SD).

2. The statistics used in the effect size analysis used the formula suggested by Glass et al. (1981), with the effect size adjusted according to the principle of Hunter et al. (1986). The formula suggested by Glass et al. (1981) quantifies certain aspects or variables related to the senior citizen QoL.

3. The statistics used to analyze the differences in the means of the effect size were t-tests for Independent Samples.

4. Statistics used for the analysis of variance (ANOVA) with F-test statistics.

5. Statistics used in multiple regression analysis.

RESEARCH RESULTS

Research Survey Results on Senior Citizen QoL

Table 1 shows that of the 108 ASEAN senior citizen QoL papers identified, the majority, or 33.33%, had been authored in Malaysia, followed by Thailand with 23.15%.

Moreover, 49.07% of the papers were published between 2012 and 2016. Popular indexes included SpringerLink (25%), ScienceDirect (23.15%), and CAB Direct (22.22%), which were categorized as health sciences with 67.59% of the papers, followed by social sciences (29.63%). Finally, only 9.26% of the authors were found to be students.

Table 1: Number and percentage of research characteristics general information.

Variable Name	Variable Value	Number (Subject)	%
Research country	Cambodia	2	1.85
	Indonesia	12	11.11
	Malaysia	36	33.33
	Philippines	4	3.70
	Singapore	17	15.74
	Thailand	25	23.15
	Vietnam	10	9.26
	Multiple ASEAN countries	2	1.85
	Total	108	100.00
Research years	2007 - 2011	17	15.74
	2012 - 2016	53	49.07
	2017 - 2021	38	35.19
	Total	108	100.00
Article's published database	CAB Direct	24	22.22
	Emerald Management	1	0.93
	JSTOR	2	1.85
	ProQuest	6	5.56
	ScienceDirect	25	23.15
	SCOPUS	11	10.19
	SpringerLink	27	25.00
	Web of Science	12	11.11
	Total	108	100.00
Study categories	Education	1	0.93

Variable Name	Variable Value	Number (Subject)	%
	Health Sciences	73	67.59
	Science and technology	2	1.85
	Social sciences	32	29.63
	Total	108	100.00
Author's position	Student	10	9.26
	Lecturer/Academician	97	89.81
	Other	1	0.93
	Total	108	100.00

Table 2 details the breakout of the studies by their sample content, age group, and where the study was conducted. Interestingly, most of the research concerned individual content (36.39%), with subjects over 60 years of age (78.70%), with a significant number residing in a home/community (66.675).

Table 2: Number and percentage of substantive research features.

Variable Name	Variable Value	Number (Subject)	%
Research content*	Individual	107	36.39
	Public health support	74	25.17
	Social	61	20.75
	Environment	52	17.69
Sample status	No age specified	2	1.85
	Over 55 years old	16	14.82
	Over 60 years old	85	78.70
	Over 65 years old	5	4.63
	Total	108	100.00
Sample source	Not specified	3	2.78
	Home/Community	72	66.67
	Nursing home	14	12.96
	Hospital	13	12.04
	Other	6	5.55
	Total	108	100.00

Note: *some studies cover more than one area of research.

Table 3 details the results from analyzing the characteristics of the 108 papers' research methodologies. In it, we can determine that relationship determination was given a high priority of 70%, with non-

experimental methods used in 95.37% of the studies. This is consistent with the no hypotheses/ hypotheses not specified results of 87.96%.

However, the sample design was quite diverse, with 28.70% using purposive sampling, 20.37% using multi-stage sampling, and 13.89 using simple random sampling. Similarly, questionnaires were used for most of the studies' data collection (56%). Basic Descriptive statistics were used to analyze the data of 33.02% of the studies, with some using statistics to analyze data using more than one method.

Table 3: Number and percentage of research characteristics for the research methodologies.

Variable Name	Variable Value	Number (Subject)	%
Research objectives*	Comparison	45	30.00
	Relationship determination	105	70.00
Research pattern	Experimental	5	4.63
	Non-experimental	103	95.37
	Total	108	100.00
Hypothesis type	No hypotheses/ Hypotheses not specified	95	87.96
	Directional	4	3.70
	Nondirectional	7	6.48
	Directional and Nondirectional	2	1.85
	Total	108	100.00
Sample design	Not specified	10	9.26
	Simple Random Sampling	15	13.89
	Systematic Random Sampling	5	4.63
	Cluster Random Sampling	2	1.85
	Stratified Random Sampling	6	5.56
	Multi-stage Sampling	22	20.37
	Convenience/Accidental	14	12.96
	Quota	1	0.93
	Purposive	31	28.70
	Snowball	2	1.85
	Total	108	100.00
Equipment quality check**	Validity	8	22.22
	Reliability	28	77.78

Variable Name	Variable Value	Number (Subject)	%
Type of Research Instrument***	Questionnaire	84	56.00
	Test	27	18.00
	Interview form	7	4.67
	Survey form	4	2.67
	Self-report form	2	1.33
	Assessment form	6	4.00
	Other	20	13.33
Statistics used for data analysis****	Descriptive statistics	106	33.02
	t-test for one sample	1	0.31
	t-test for dependent	4	1.25
	t-test for independent	18	5.61
	Correlation	36	11.21
	Simple regression	3	0.93
	Multiple regression	67	20.87
	ANOVA/ANCOVA	12	3.74
	Two-ways ANOVA/ANCOVA	1	0.31
	Factor analysis (EFA CFA)	9	2.80
	Path analysis	5	1.56
	SEM	1	0.31
	HLM	3	0.93
	χ^2 test	29	9.03
	Odd ratio	16	4.98
	Other	10	3.12

Notes: *Some studies have more than one research objective, **some studies examine the quality of more than one type of instrument, *** some studies use more than one type of measuring instrument, and **** some studies have statistics used to analyze data in multiple methods.

Table 4 details each paper's mean and SD and minimum and maximum values of the research characteristics for the continuous variables.

Table 4: Mean, SD, and the research minimum and maximum values (n=108 articles).

Variable	mean	SD	Minimum Value	Maximum Value
Number of researchers	3.90	1.45	1.00	7.00

Number of dependent variables	3.13	3.16	1.00	17.00
Number of independent variables	11.41	9.39	1.00	42.00
Number of hypotheses	0.38	1.77	0.00	16.00
Sample sizes	1,868.25	6,504.18	60.00	50,138.00
Total number of tools	2.40	1.83	1.00	8.00
Effect size value	0.307	0.204	0.030	0.910

Table 5 presents the mean and SD for the study's 22 assessment items, with Item 15's 'The process for collecting information is clear and appropriate' ranked highest (mean = 3.50, SD = 1.06). This was followed by Item 12's 'The population and sample size were identified and calculated appropriately' with a mean = 3.34, SD = 1.02. However, somewhat shockingly, Item 5's 'The hypotheses are correct and clear according to standard research principles' was judged very poor (mean =0.69, SD=1.39).

Table 5: Mean and SD of quality characteristics (n=108 articles).

Item	Assessment Items	mean	SD	Quality
	Research problem formulation			
1.	The title is clear and interesting.	3.18	1.08	good
2.	The introduction is consistent with the research topic.	2.98	1.01	good
3.	Objectives or research problems are consistent with the title of the research.	3.23	1.06	very good
4.	The reasons and necessity for conducting research are reasonable.	3.01	0.80	good
5.	The hypotheses are correct and clear according to	0.69	1.39	low

	standard research principles.			
6.	The conceptual framework of the research is accurate and clear according to the research principles.	2.58	1.05	good
	Total	2.61	0.73	good
	Study documents and related research			
7.	The paper's references and research are sufficient.	3.05	1.03	good
8.	Documents and related research are consistent with the problem or research objectives.	2.57	0.86	good
9.	Documents and relevant research are up-to-date.	1.98	0.81	moderate
	Total	2.53	0.62	good
	Information collection			
10.	The research design is consistent with the research objectives.	3.06	0.75	good
11.	The research process is clear.	3.31	0.99	very good
12.	The population and sample size were identified and calculated appropriately.	3.34	1.02	very good
13.	The sample's acquisition selection criteria were correct.	2.10	1.25	moderate
14.	The research tools were suitable and of good quality.	1.63	0.98	moderate

15.	The process for collecting information is clear and appropriate.	3.50	1.06	very good
16.	The statistics used in the data analysis were accurate and suitable for the nature of the data.	2.34	0.73	moderate
	Total	2.76	0.58	good
	Data analysis, discussion of results, and utilization of research results.			
17.	presentation and interpretation of the data analysis were correct.	2.44	1.33	good
18.	The interpretation and conclusions of the data analysis were accurate and clear.	2.74	0.98	good
19.	The conclusions obtained are comprehensive and consistent with the research objectives or problems.	2.47	1.41	good
20.	Discussions are consistent with past research findings covering objective issues or research problems.	3.00	0.94	good
21.	The research can be used for practical purposes.	2.49	0.96	good
22.	The research can be used for academic purposes.	2.52	1.11	good
	total	2.61	0.66	good

The results of the mean difference analysis of the effect size classified by general data research characteristics determined that the country of research, article research year, article's published database, research field, and author's position had no statistically significant differences in the mean size of the effect (Table 6).

Table 6: Mean size difference analysis results classified by research characteristics.

Variable Name	Mean effect size values			ANOVA / (t-test)	
	n	$\bar{r}$	SD	F	Sig.
Country of research					
Cambodia	2	0.290	0.325	0.325	0.941
Indonesia	12	0.288	0.225		
Malaysia	36	0.345	0.203		
Philippines	4	0.290	0.717		
Singapore	17	0.279	0.222		
Thai	25	0.278	0.186		
Vietnam	10	0.316	0.255		
Other ASEAN countries	2	0.365	0.148		
Article research year					
2007 - 2011	17	0.294	0.193	0.087	0.917
2012 - 2016	53	0.304	0.177		
2017 - 2021	38	0.317	0.245		
Article's published database					
CAB Direct	24	0.300	0.209	0.317	0.945
Emerald Management	1	0.160	0.000		
JSTOR	2	0.160	0.141		
ProQuest	6	0.355	0.192		
ScienceDirect	25	0.294	0.194		
SCOPUS	11	0.306	0.186		
SpringerLink	27	0.327	0.221		
Web of Science	12	0.317	0.236		
Research field					
Education	1	0.722	0.000	1.943	0.127
Health Sciences	73	0.295	0.203		
Science and technology	2	0.468	0.121		
Social science	32	0.312	0.199		
Author's position					
Student	10	0.328	0.231	0.107	0.899
Lecturer/Academician	97	0.305	0.203		

Variable Name	Mean effect size values			ANOVA / (t-test)	
	n	r̄	SD	F	Sig.
Other	1	0.242	0.000		

The results of the mean size difference analysis classified by content research characteristics in terms of research content, sample status, and sample source had no statistically significant differences in the mean size of the effect.

Table 7: Results of the mean size difference analysis classified by content research characteristics.

Variable Name	Mean effect size values			ANOVA/ (t-test)	
	n	r̄	SD	F	Sig.
Research content*					
Individual	107	0.305	0.204	0.361	0.782
Public health support	74	0.335	0.196		
Social	61	0.309	0.190		
Environment	52	0.314	0.196		
Sample status					
Not specified	2	0.415	0.232	1.617	0.190
Over 55 years of age	16	0.372	0.225		
Over 60 years of age	85	0.300	0.201		
Over 65 years of age	5	0.164	0.098		
Sample source					
Not specified	3	0.337	0.139	0.286	0.887
Home/Community	72	0.295	0.206		
Nursing home	14	0.306	0.239		
Hospital	13	0.334	0.189		
Other	6	0.374	0.177		

Note: *Some studies cover more than one area of research.

The results of the mean difference analysis of the effect size classified by research characteristics in research methodology found that the

research objectives, research hypotheses type, sample design, tool quality check, measuring instrument, and statistics used to analyze the data had no statistically significant differences in the mean size of the effect (Table 8).

Table 8: The results of the analysis of differences in the mean size of the effect as classified by research characteristics in the research methodology.

Variable Name	The mean value of effect size			ANOVA/ (t-test)	
	n	$\bar{r}$	SD	F	Sig.
Research objectives**					
Comparison	45	0.319	0.206	(0.157)	0.876
Relationship determination	105	0.314	0.202		
Research pattern					
Testing	5	0.440	0.224	(1.501)	0.136
Untested	103	0.300	0.202		
Research hypotheses type					
No assumption	95	0.303	0.206	1.298	0.279
Directional	4	0.445	0.238		
Nondirectional	7	0.234	0.076		
With direction and without direction	2	0.457	0.291		
Sample design					
Not specified	10	0.234	0.100	0.868	0.557
Simple Random Sampling	15	0.243	0.196		
Systematic Random Sampling	5	0.362	0.253		
Cluster Random Sampling	2	0.264	0.170		
Stratified Random Sampling	6	0.455	0.308		
Multi-stage Sampling	22	0.338	0.236		
Convenience/Accidental	14	0.270	0.217		
Quota	1	0.233	0.000		
Purposive	31	0.327	0.177		
Snowball	2	0.262	0.066		
Tool quality check***					
Validity	8	0.368	0.242	(0.167)	(0.869)
Reliability	28	0.352	0.222		
Type of Research Instrument****					
Questionnaire	84	0.291	0.188	1.521	0.175

Variable Name	The mean value of effect size			ANOVA/ (t-test)	
	n	$\bar{r}$	SD	F	Sig.
Test	27	0.318	0.218		
Interview form	7	0.522	0.287		
Survey form	4	0.391	0.370		
Self-report form	2	0.371	0.169		
Assessment form	6	0.304	0.225		
Other	20	0.297	0.189		
Statistics used for data analysis*****					
Basic stats	106	0.307	0.204	1.415	0.133
t-test for one sample	1	0.722	0.000		
t-test for dependent	4	0.417	0.266		
t-test for independent	18	0.284	0.134		
Correlation	36	0.332	0.194		
Simple regression	3	0.523	0.174		
Multiple regression	67	0.301	0.194		
ANOVA/ANCOVA	12	0.324	0.189		
Two-ways ANOVA/ANCOVA	1	0.541	0.000		
Factor analysis (EFA CFA)	9	0.495	0.203		
Path analysis	5	0.239	0.043		
SEM	1	0.339	0.000		
HLM	3	0.168	0.104		
χ^2 test	29	0.286	0.214		
Odd ratio	16	0.343	0.226		
Other	10	0.326	0.236		

Notes: *Statistically significant at .05, **Some studies have more than one research objective, *** some studies examine the quality of more than one type of instrument, **** some studies use more than one type of measuring instrument, and ***** some studies use more than one method of analyzing statistics.

The analysis results of the effect of research characteristics that are continuous variables on the effect size revealed that the number of researchers, number of dependent variables, number of independent variables, number of hypotheses, number of samples, and the total number of tools had a statistically insignificant effect on the effect size at .05 (Table 9). When combined, all the variables explained the effect size variance at 1.00%.

Table 9: The analysis results of the effect of research characteristics as continuous variables on the effect size.

Variable	b	SE	β	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
Number of researchers	-0.008	0.014	-0.056	-0.547	0.585	0.904	1.107
Number of dependent variables	-0.004	0.006	-0.063	-0.642	0.522	0.981	1.019
Number of independent variables	-0.002	0.002	-0.090	-0.873	0.385	0.879	1.138
Number of hypotheses	0.016	0.011	0.141	1.434	0.155	0.979	1.022
Number of samples	-2.823	0.000	-0.090	-0.845	0.400	0.830	1.205
Total number of tools	0.002	0.011	0.020	0.205	0.838	0.968	1.033

Note: Constant 0.366, adjusted R2 0.010.

The analysis results of the effect of research characteristics on the quality of the effect size revealed that the educational research problem formulation, study documents and related research, and the data collection had a positive effect on the effect size with a statistical significance at .05. However, the same variables did not affect the effect size as they were statistically significant at .05, with all variables together explaining the variance of the effect size at 60.80%.

Table 10: The analysis results of the effect of the characteristics of quality on the effect size.

Variable Name	b	SE	ß	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
Research problem formulation.	.077	.026	.278	2.972	.004*	.418	2.391
Study documents and related research.	.090	.030	.272	2.994	.003*	.443	2.255
Data collection.	.077	.029	.221	2.697	.008*	.547	1.829

Data analysis, discussion of results, and utilization of research results.	.048	.027	.155	1.779	.078	.483	2.070

Notes: Constant -0.460, Adjusted R2 0.608, *Statistically significant at .05.

DISCUSSION

Results of Research Surveys on ASEAN Senior Citizen Quality of Life

The synthesis of research surveys on the quality of life of ASEAN senior citizens revealed that most studies originated in Malaysia. The researcher found a database primarily of Malaysian studies focusing on older individuals. These studies were predominantly published between 2012 and 2016, coinciding with the global transition to an aging society starting in 2006, and the period from 2007 to 2011 marked the initial phase of increased interest in studying senior citizens, followed by heightened attention from researchers from 2012 to 2016.

These results with a very recent report from the World Health Organization (2023), which has also investigated Thailand's aging and stated that the Kingdom is amongst the most rapidly aging nations in the world, by the next decade, will have 28% of its citizens classified as part of a 'super-aged society.' However, Japan has reached this status, with 28.7% of its citizens 65 or older, with women forming the majority. Interestingly, Teerawichitchainan et al. (2015) have observed that although living alone is associated with adverse well-being outcomes in Vietnam and Myanmar, Thailand is an exception. Irwan et al. (2016) added that self-care practices tend to avoid checkups and limitations on unhealthy sugar and salt intakes in Indonesia. In Java, Indonesia, Cahyaningtyas et al. (2019) reported that strong religious beliefs, education levels, finances, and good nutritional status positively influenced the study's 200 senior citizens' healthy aging.

Results from this study determined that the field of research predominantly concentrated on health science, particularly senior citizens' physical and mental well-being. The research primarily delved into various aspects such as demographic information (age, gender, education level, marital status, occupation, religion, income, and economic status), functional capacity, congenital diseases or physical illnesses, self-efficacy, beliefs, thoughts, and emotions. Most research studies targeted citizens aged 60 years old and above, aligning with

the World Health Organization (WHO) definition that classifies individuals aged 60 years and over as senior citizens.

Similarly, Nynut et al. (2009) explored factors related to senior citizens' mental health in Singapore. From the survey, the authors determined that 13% of the senior citizen respondents had mental disorders, but only 33% had sought mental health guidance. In Malaysia, Abdul Manaf et al. (2016) examined 230 senior citizens residing in rural communities and reported that 27.8% reported they were depressed, which was primarily due to being single. Anxiety was second in mental health importance (22.6%), but somewhat interestingly, this was due to living with their families. However, in Indonesia, Sya'diyah et al. (2020) reported that caring nurses effectively reduced senior citizen loneliness. In Vietnam, Giang et al. (2019) reported on depression in senior citizens. They stated that for rural and urban-aged citizens, domestic violence, lacking day-to-day finances, and living alone contributed to depression.

Overall, the quality of the research surveys was commendable. The studies referenced relevant documents and research consistent with the objectives or problem statement. The data collection process was conducted at a high level, adhering to a clear and appropriate research design. Population and sample groups were well-defined, and data analysis, discussion, and utilization of research results were thorough. The research findings were presented comprehensively, utilizing appropriate presentation methods such as tables, and the interpretation of data analysis was complete.

Results of the Research Synthesis on ASEAN Senior Citizen QoL

Through meta-analysis, the findings of the research synthesis regarding the influence of research characteristics on effect size revealed that several factors had a positive and statistically significant impact at the .05 level. Specifically, formulating the research problem, educational documents, related research, and data collection positively affected the effect size. These results underscore the importance of quality research, which necessitates a well-defined research problem, a clear and engaging title, and research objectives that align with the topic.

Furthermore, it is crucial to establish an accurate and appropriate conceptual framework based on sound research principles and make clear and correct assumptions. Kamket (2012) has previously highlighted the research methodology, emphasizing the formulation of research questions, objectives, and scope, followed by thoroughly exploring theories, concepts, and related research. Subsequently, the research design is developed.

Additionally, quality research entails a comprehensive review of relevant documents and research that align with the research problem

or objectives. As Creswell (2012) states, this literature review assists researchers in anticipating and predicting research outcomes. Data collection, another crucial aspect of quality research, must adhere to research principles. Kamket (2012) has pointed out the significance of research design and guidelines to ensure internal and external validity. Researchers are advised to employ three designs: measurement design, sampling design, and analysis design. Moreover, Creswell (2012) outlines five steps in the data collection process for quantitative research, encompassing the population and sample group, characterization of sample attributes and data sources, types of data and variable measurement, selection of appropriate data collection tools, and meticulous data collection.

CONCLUSION

Currently, the world is transitioning towards becoming an aging society in numerous countries, including ASEAN nations. Consequently, there is a growing interest among academics and researchers in studying various aspects of the lives of older adults, resulting in a substantial body of research in this area. Researchers have synthesized these studies to conclude research focused on older adults. The findings indicate that high-quality research should possess clear and captivating titles, objectives, or problems that align with the title and adhere to research principles. Additionally, it should encompass well-defined and appropriate research frameworks, clear and precise hypotheses, adequate and up-to-date references to relevant documents and studies, research designs that correspond with the research objectives, appropriate population and sample selection based on research principles, suitable research tools of high quality, and proper statistical analyses that align with the characteristics of the data. Consequently, the outcomes of this research can serve as guidelines for developing future high-quality research concerning older adults.

Author Contributions

All authors contributed equally to the conception and design of the study.

Conflict of Interest

The authors declare that the research was conducted without financial or commercial relationships that could be interpreted as a potential conflict of interest.

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