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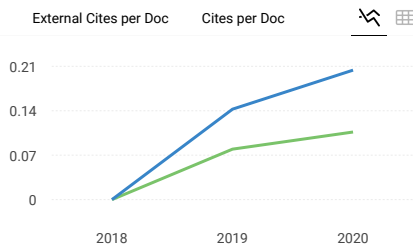
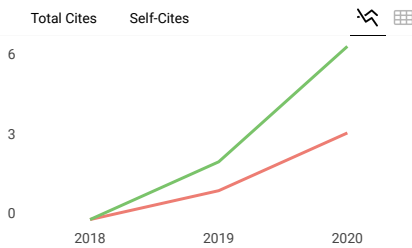
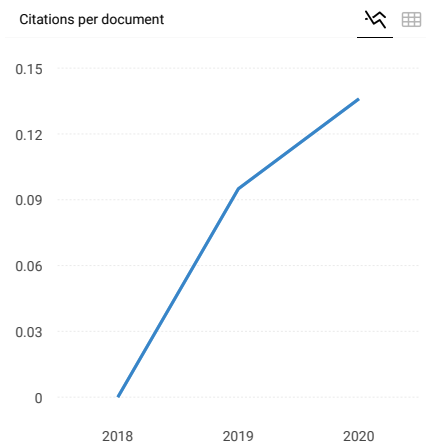
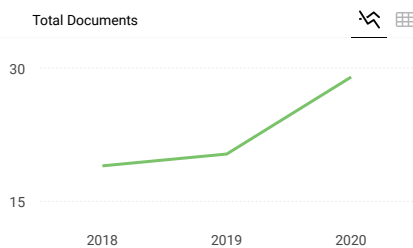
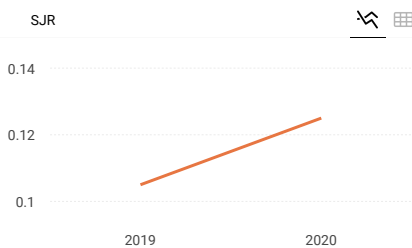
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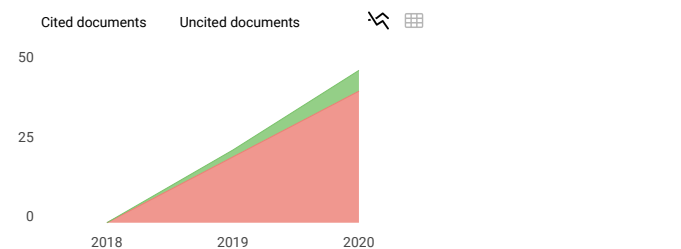
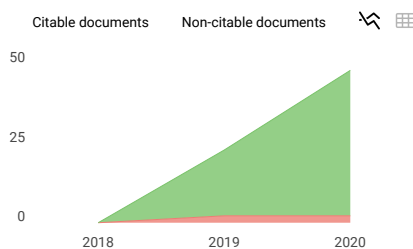
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## Expectations in Quality of Life of elderly Person in Ranong, Thailand

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### Abstract

It is one of the major challenges to maintain a good level in quality of life for elderly people in Ranong, Thailand. Therefore, this study is an attempt to promote quality of life expectations. Thus, the objective of this study is to promote quality of life expectations in Ranong, Thailand. Consequently, the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations was considered. For this purpose, quantitative research study was carried out through cross-sectional research design. Questionnaire was used for data collection in Ranong, Thailand. Data were collected from elderly person's in Ranong, Thailand. Finally, data were analyzed through statistical software. Outcomes of the study highlighted that; physical exercise and social connections has major importance for quality of life expectations. Physical exercise has the ability to promote physical functions and maintain functions which further lead to the quality of life expectations. Additionally, social connections have the ability to decrease the loneliness among elderly people which lead to the better quality of life.

**Keywords.** Physical exercise, social connection, physical function, mental function, loneliness, quality of life expectations, Ranong.

### 1. Introduction

Quality of life is an important element of human life (Mueller et al., 2021). A sufficient level in quality of life is always require for a human to achieve. Due to high importance of quality of life, the individuals always try to achieve higher level of quality, however, it is not easy to maintain a significant level of quality. As it is highlighted in the literature that quality of life has vital importance in an individual's life (Rass et al., 2021). Generally, the quality of life is based on the

human health. A better level of health is the indication of better quality of life. Furthermore, it also includes confirmability in an individual's life. Therefore, majorly, the quality of life is based on better health and comfort.

However, it is not easy for elderly person to maintain a significant level in quality of life, because its elderly person involved in various diseases cannot maintain good quality of life. In Thailand, the maintenance of quality of life is also an issue. Particularly, in Ranong provinces, the quality of life is quite low for elder people which require significant strategies to promote quality of life. It is important to introduce various measures to promote elderly people's quality of life. Therefore, achievement of good quality of life is a challenge for an elderly person. As given in previous investigations that it is not easy to achieve a good level in quality of life by an elderly person (Salmanezhad, Momtaz, Sahhaf, Rassafiani, & Foladi, 2021). Generally, elder persons face several health issues which decreases the quality of life. The elderly person cannot enjoy the events with good health. In this situation, the quality of life expectations remains low for the elderly people. In this direction, this study is an attempt to highlight a framework to promote elderly people's quality of life. In the recent environment and with the passage of time, the chronic diseases are increasing which decreases the quality of life, particularly, for elder people. As in recent years, the COVID-19 decreases the quality of life (Zhang & Ma, 2020). Especially, COVID-19 has major effect on the elder people. The people having more age, for example, above sixty, are more effected due to COVID-19 as compared to the young people. In this direction, to promote quality of life, elder people require more prevention strategies to prevent from various chronic diseases. It is also important for the academician to do the research on the elderly people's quality of life to promote better health for elder people.

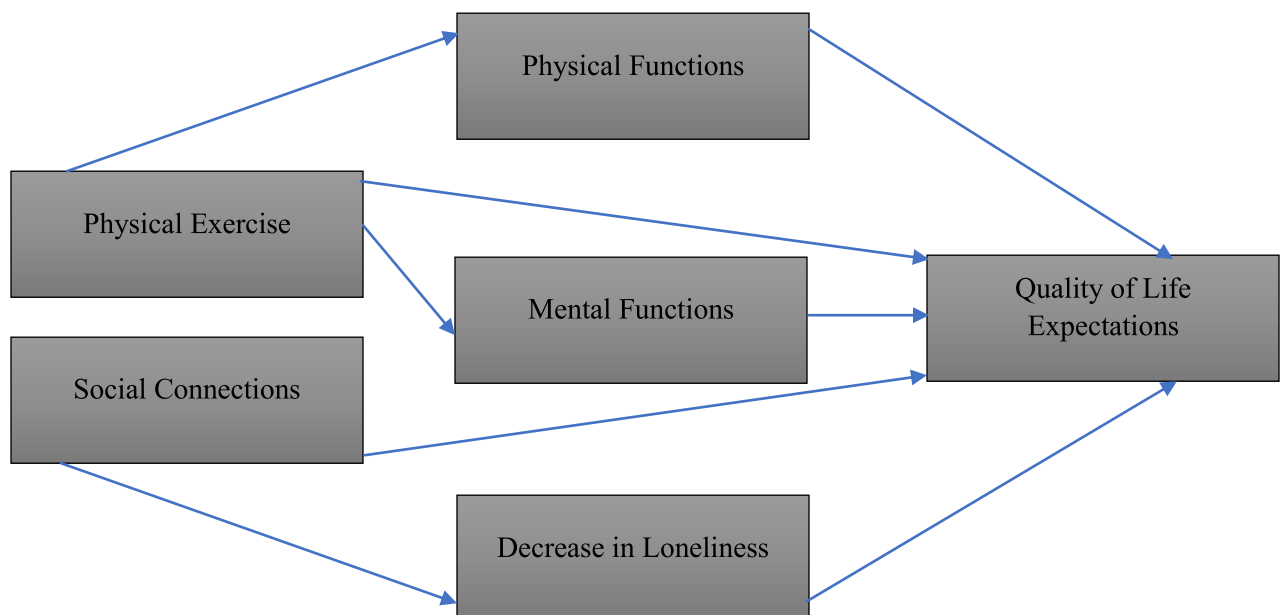
Generally, the old people have low level of physical functions. As compared to the young people, the physical functions of old people have low performance. This is one of the important reasons for low quality of life. Secondly, mental functions performance also remains low as compared to the young people. Both the mental and physical functions require sufficient level of quality for a human (FUJIO, SHIMADA, SUGIYAMA, & SATO, 2017) to spend a quality life. However, the elder people face the problem of low mental and physical functions. In addition to this, elder people also face the issues of loneliness which effect on their mental state. The mental wellbeing remains at low level due to loneliness. Therefore, mental health is most important for a human (Auerbach et al., 2018) to perform better and it is most important for the elder people to maintain quality of life.

The current study proposed that physical exercise has vital role in the better functioning of elder people. Physical exercise has the potential to promote physical functions as well as mental functions. In addition to this, social connections are important to decrease loneliness. Both the physical exercise and social connections has the potential to promote quality of life through physical exercise and social connections in Ranong, Thailand. Hence, the objective of this study is to promote quality of life expectations. In this direction, the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations was considered. Finally, by examining the role of physical exercise and social

connections, along with the role of physical functions, mental functions and loneliness in quality of life expectations, the current study has important contribution to the literature.

## 2. Literature Review

Ranong is one of Thailand's southern provinces, on the west coast along the Andaman Sea. It has the fewest inhabitants of all Thai provinces. Provinces neighboring Ranong are Chumphon, Surat Thani, and Phang Nga. To the west, it borders Kawthaung, Tanintharyi, Myanmar. Along with the other provinces of Thailand, Ranong also has a considerable percentage of elder people. These elder people require various services to maintain a quality of life. However, due to increase in age of people, they are suffering with different diseases. In this situation, the maintenance of a certain quality of life is quite tough. But he expectations among elderly people for better quality of life can be promoted. In this way, the current study proposed a framework to promote quality of life among elderly people of Ranong Thailand. According to the current study, the major reason for low quality of life among elder people is low level of physical functions and mental functions. Both the physical functions and mental functions has key importance to achieve better quality of life (Ishihara, Izawa, Noto, & Shimizu, 2021). Additionally, loneliness is also one of the reasons for low quality of life. Thus, it is needed to promote physical functions and mental functions and decrease the loneliness to enhance quality of life expectations among the elderly people. Thus, this study examined the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations which is shown in Figure 1.



**Figure 1.** Theoretical framework of the study showing the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations

## 2.1 Physical Exercise and Quality of Life Expectations

Exercises are usually grouped into various types dependent on the impact they have on the human body of any individual. For instance, flexibility exercises such as extending advance the range of motion of muscles as well as joints; aerobic exercises such as walking as well as running emphasis on improving cardiovascular endurance; and anaerobic exercises. It is significant effect on the quality of life (German et al., 2021) of elder people because physical exercise can enhance muscles, joints and improving cardiovascular endurance. Ultimately, it increases the physical functions of an individuals. It also increases the level of confidence among the elder people which further lead to the better expectations in quality of life. It is also highlighted in previous studies that physical exercise has relationship with quality of life (Dauwan et al., 2021). Along with the physical functions, physical exercise also has influence on the mental functions. Mental functions are related to the human mind which has major importance in quality of life. Due to increase age, mental functions become reduced which has negative effect on quality of life. Therefore, it is important to improve mental function which can be promoted through physical exercise. As the physical exercise can increase the mental health of a human (Chekroud et al., 2018). Hence, the following hypotheses are proposed;

**Hypothesis 1.** Physical exercise has relationship with physical functions.

**Hypothesis 2.** Physical exercise has relationship with mental functions.

**Hypothesis 3.** Physical functions have relationship with quality of life expectations.

**Hypothesis 4.** Mental functions have relationship with quality of life expectations.

**Hypothesis 5.** Physical exercise has relationship with quality of life expectations.

**Hypothesis 6.** Physical functions mediate the relationship between physical exercise and quality of life expectations.

**Hypothesis 7.** Mental functions mediate the relationship between physical exercise and quality of life expectations.

## 2.2 Social Connections and Quality of Life Expectations

Social connections are another important element which has positive role to promote quality of life. Social connections can promote quality of life through decrease in the loneliness of elderly people. Social connection is the experience of feeling close and associated to others. It includes feeling loved, cared for, and valued, as well as forms the basis of interpersonal relationships. The connections are one of the better sources to reduce the tension and stress. Social corrections decrease the loneliness of the people. As the elder people remain alone most the time, therefore, the social connections have major importance to decrease the level of loneliness. Previous studies also reported the relationship between social connections and quality of life (Dufåker, Jacobsson, & Åström, 1993), however, these studies are very limited. In this direction, the current study is an attempt to promote quality of life among elderly people by decreasing loneliness through social connections. Hence, the following hypotheses are proposed;



**Hypothesis 8.** Social connections have relationship with decrease in loneliness.

**Hypothesis 9.** Decrease in loneliness has relationship with quality of life expectations.

**Hypothesis 10.** Social connections have relationship with quality of life expectations.

**Hypothesis 11.** Decrease in loneliness mediates the relationship between social connections and quality of life expectations.

### 3. Research Methodology

The current study is grounded on the relationship between variables. As this study examine the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations. The nature of this relationship is based on the primary data. By following the nature of relationship considered in this study, quantitative research study was carried out through cross-sectional research design. As several previous studies on quality of life also used primary data (Khan, Kamruzzaman, Rahman, Mahmood, & Uddin, 2021).

Thus, a questionnaire was designed for data collection. While developing a questionnaire, 5-point Likert scale was considered in this study. 5-point Likert scale is more preferable because it has the ability to ensure the originality of the data with the decrease in frustration level of respondents (Hameed, Basheer, Iqbal, Anwar, & Ahmad, 2018). Thus, this study designed a survey instrument which is based on the two major sections. The first section was based on the various information related to the respondent’s profile and the second section was based on the scale items related to the key study variables; physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations.

Finally, the current study distributed 450 questionnaires among the elder people of Ranong, Thailand. Before the distribution of questionnaires, the instructions were given to the respondents and it was insured that the data from this questionnaire will only be used in the current research to achieve the study objective. Furthermore, this study only considered the people above the age 60. Therefore, this study considered the elder people above age 60. Finally, 245 questionnaires were returned from this survey. However, all the questionnaires were not useable because few questionnaires were missing the significant portion and few questionnaires were not filled with better level of interest. Therefore, these questionnaires were excluded from the study and total 234 questionnaires were used for data analysis through statistical tool.

### 4. Findings

Table 1 shows the data statistics including the missing value, mean, median, outlier and normality of the data.

**Table 1.** Data Statistics

	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
PE1	1	0	1.627	1	1	5	0.963	3.451	1.875

PE2	2	0	2.131	2	1	5	1.23	0.689	1.281
PE3	3	0	1.882	1	1	5	1.193	1.281	1.465
PE4	4	0	2.085	2	1	5	1.096	0.722	1.122
SC1	5	0	1.686	1	1	5	1.026	2.444	1.727
SC2	6	0	2.176	2	1	5	1.144	0.86	1.209
SC3	7	0	1.804	2	1	5	0.971	1.38	1.314
SC4	8	0	2.111	2	1	5	0.852	2.137	1.128
PF1	9	0	2.026	2	1	5	1.268	0.793	1.35
PF2	10	0	2.137	2	1	5	1.138	0.778	1.125
PF3	11	0	1.758	2	1	5	0.97	1.763	1.457
MF1	12	0	1.974	2	1	5	1.029	2.048	1.472
MF2	13	0	1.745	1	1	5	1.007	2.814	1.735
MF3	14	0	1.85	2	1	5	1.015	2.168	1.482
DL1	15	0	1.974	2	1	5	1.096	1.64	1.435
DL2	16	0	1.889	2	1	5	0.89	2.953	1.514
DL3	17	0	1.791	2	1	5	0.961	2.655	1.592
QLE1	18	0	1.889	2	1	5	0.911	2.462	1.426
QLE2	19	0	1.752	2	1	5	1.012	3.175	1.817
QLE3	20	0	1.908	2	1	5	0.888	1.413	1.142
QLE4	21	0	1.889	2	1	5	1.088	2.118	1.576
QLE5	22	0	1.752	2	1	5	0.827	1.572	1.195
QLE6	23	0	1.68	2	1	5	0.837	2.913	1.541

This study utilized Partial Least Square (PLS) for data analysis (J. Hair, Hollingsworth, Randolph, & Chong, 2017; J. F. Hair, Sarstedt, Pieper, & Ringle, 2012). Figure 2 indicates the factor loadings which is also given in Table 2. Factor loadings should be higher than 0.5 in the current study. As given in Table 2, factor loadings are above 0.5.

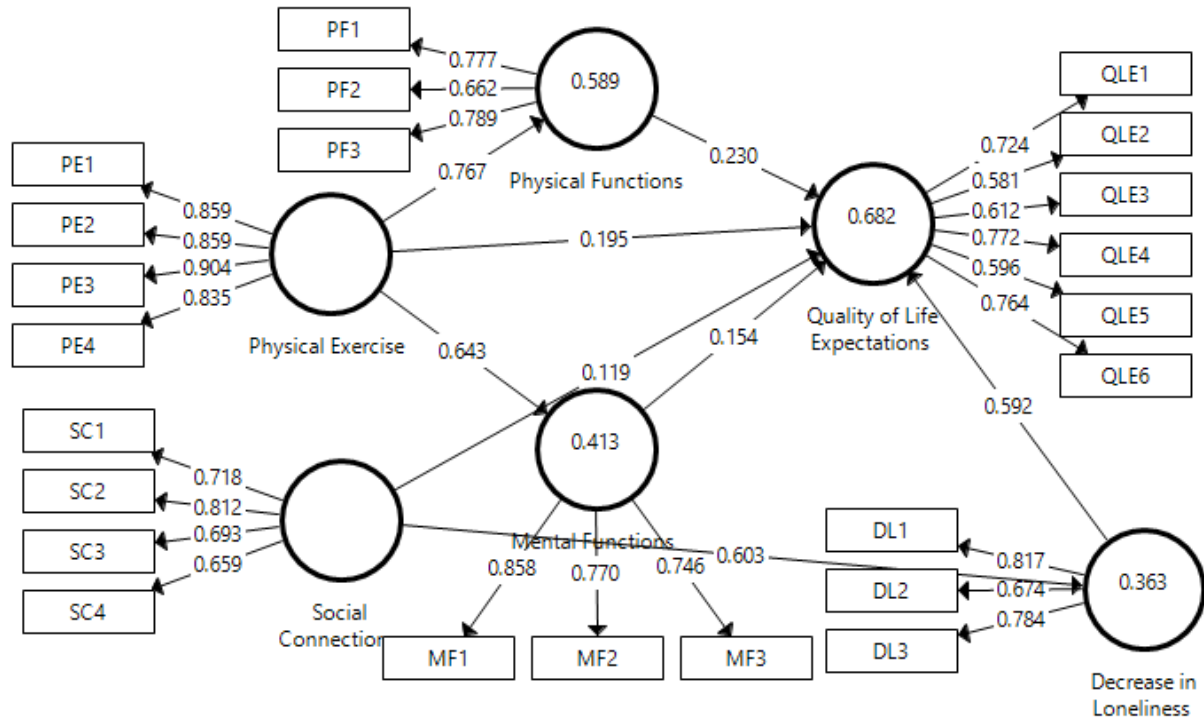


Figure 2. Measurement Model

Table 2. Factor Loadings

	Decrease in Loneliness	Mental Functions	Physical Exercise	Physical Functions	Quality of Life Expectations	Social Connections
DL1	0.817					
DL2	0.674					
DL3	0.784					
MF1		0.858				
MF2		0.77				
MF3		0.746				
PE1			0.859			
PE2			0.859			
PE3			0.904			
PE4			0.835			
PF1				0.777		
PF2				0.662		
PF3				0.789		
QLE1					0.724	
QLE2					0.581	
QLE3					0.612	
QLE4					0.772	
QLE5					0.596	

QLE6	0.764
SC1	0.718
SC2	0.812
SC3	0.693
SC4	0.659

In this process, this study also examined composite reliability (CR) and average variance extracted (AVE). Both the value of CR and AVE must be above 0.7 and 0.5, respectively (F. Hair Jr, Sarstedt, Hopkins, & G. Kuppelwieser, 2014; Hair Jr, Hult, Ringle, & Sarstedt, 2016). It is given in Table 3; all the values are above 0.7 and 0.5. Finally, discriminant validity is examined by using HTMT ratio as shown in Table 4.

**Table 3.** Reliability and Convergent Validity

	Cronbach's Alpha	rho_A	Composite Reliability	(AVE)
Decrease in Loneliness	0.734	0.749	0.803	0.578
Mental Functions	0.701	0.705	0.835	0.628
Physical Exercise	0.887	0.889	0.922	0.747
Physical Functions	0.796	0.704	0.788	0.555
Quality of Life Expectations	0.765	0.771	0.836	0.562
Social Connections	0.793	0.704	0.813	0.522

**Table 4.** HTMT

	Decrease in Loneliness	Mental Functions	Physical Exercise	Physical Functions	Quality of Life Expectations	Social Connections
Decrease in Loneliness						
Mental Functions	0.511					
Physical Exercise	0.694	0.816				
Physical Functions	0.896	0.758	0.549			
Quality of Life Expectations	0.512	0.885	0.582	0.842		
Social Connections	0.891	0.806	0.897	0.828	0.806	

The relationship between variables is tested through PLS structural model as given in Figure 3 (Hameed, Nisar, & Wu, 2020). Results are given in Table 5 and Table 6. Table 5 shows that physical exercise has positive effect on physical functions and mental functions. Both the physical functions and mental functions has positive effect on quality of life expectations. As the t-value is above 1.96 for these relations and beta value is positive. Physical exercise has positive effect on quality of life expectations directly. Furthermore, social connections have positive effect to decrease the loneliness, however, it has no direct effect on quality of life,

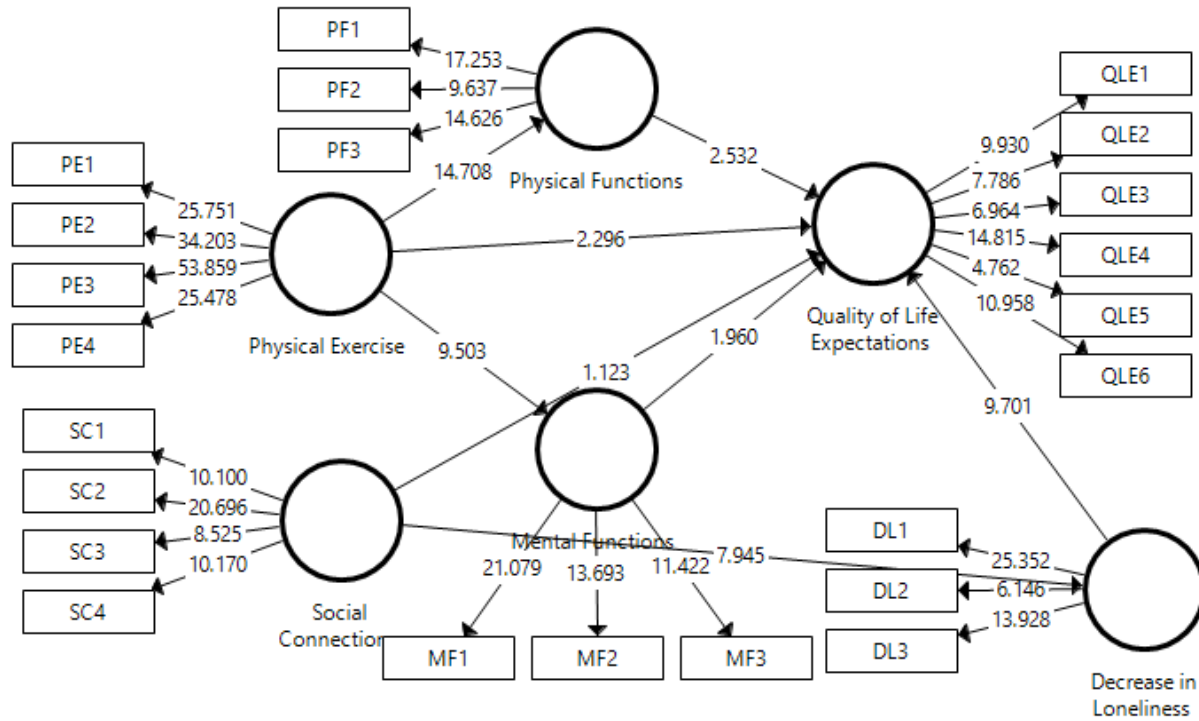


Figure 4. Structural Model

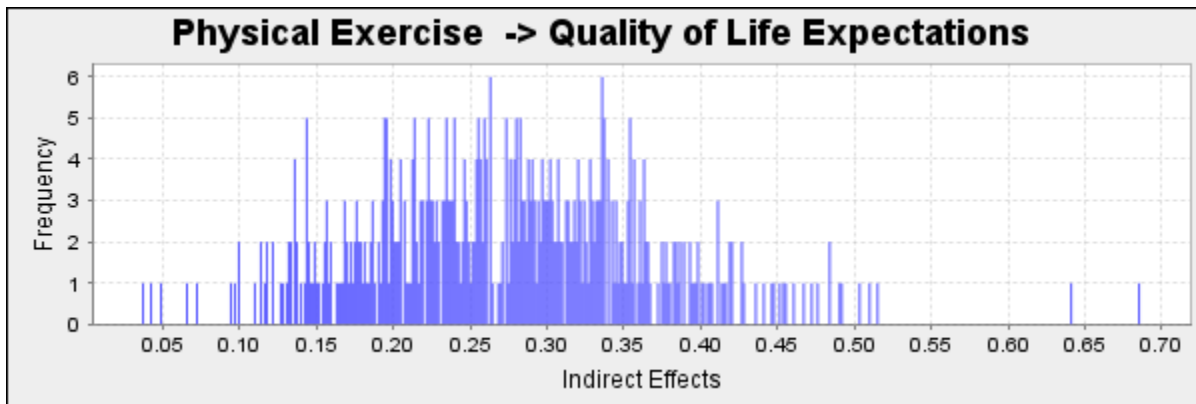
Table 5. Direct Effect Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Decrease in Loneliness -> Quality of Life Expectations	0.592	0.593	0.061	9.701	0
Mental Functions -> Quality of Life Expectations	0.154	0.152	0.078	1.96	0.05
Physical Exercise -> Mental Functions	0.643	0.649	0.068	9.503	0
Physical Exercise -> Physical Functions	0.767	0.766	0.052	14.708	0
Physical Exercise -> Quality of Life Expectations	0.195	0.191	0.085	2.296	0.022
Physical Functions -> Quality of Life Expectations	0.23	0.228	0.091	2.532	0.012
Social Connections -> Decrease in Loneliness	0.603	0.608	0.076	7.945	0
Social Connections -> Quality of Life Expectations	0.119	0.116	0.106	1.123	0.262

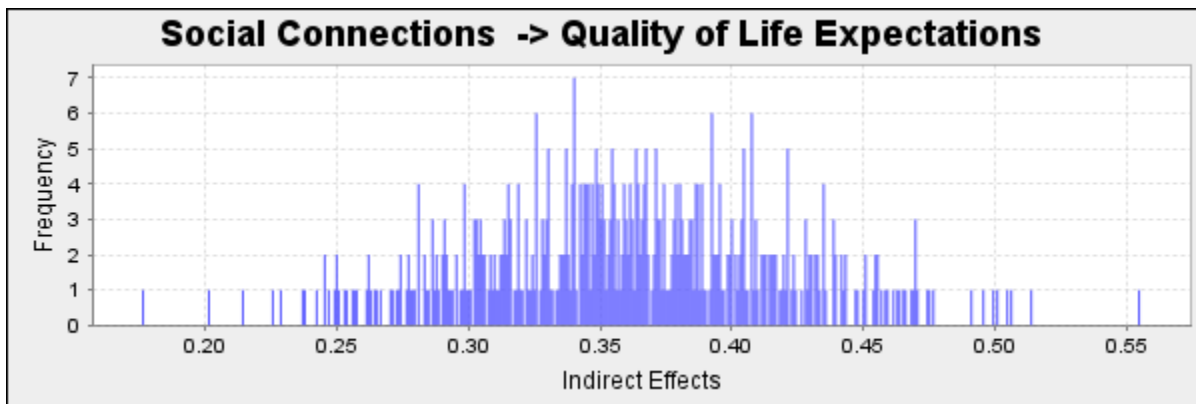
Finally, the mediation effect is given in Table 6 which shows that mediation effect of decrease in loneliness mediates the relationship between social connections and quality of life expectations. In the similar way, mediation effect of physical functions is significant between physical exercise and quality of life expectations. However, the mediation effect of mental functions is not significant between physical exercise and quality of life expectations. As the t-value 1.924 is below 1.96. Additionally, indirect effect histograms are given in Figure 4 and Figure 5.

**Table 6.** Indirect Effect Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Social Connections -> Decrease in Loneliness -> Quality of Life Expectations	0.357	0.36	0.057	6.258	0
Physical Exercise -> Mental Functions -> Quality of Life Expectations	0.099	0.098	0.051	1.924	0.055
Physical Exercise -> Physical Functions -> Quality of Life Expectations	0.177	0.175	0.072	2.464	0.014



**Figure 4.** Indirect effect of physical functions between physical exercise and quality of life expectations and quality of life expectations



**Figure 5.** Indirect effect of decrease in loneliness between social connections and quality of life expectations

## 5. Conclusion

This study was an attempt to promote quality of life expectations by examining the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations. The objective of this study was to promote quality of life expectations in Ranong, Thailand. For this purpose, quantitative research study was carried out

through cross-sectional research design and a questionnaire was designed for data collection. Results of the study highlighted that; physical exercise and social connections has major importance for quality of life expectations. It is found that; physical exercise has positive influence on physical functions and physical functions have positive role to promote quality of life. In a similar way, mental functions can be improved through physical exercise which can increase quality of life. Thus, physical exercise has the ability to promote physical functions and maintain functions which further lead to the quality of life expectations. Furthermore, social connections have positive influence to decrease loneliness of elderly people which lead to the better quality of life expectations. Hence, social connections have the ability to decrease the loneliness among elderly people which lead to the better quality of life. Finally, both the physical exercise and social connections of elderly people can increase the quality of life expectations.

## **6. Implications of the Study**

Results of the current study has major importance for the literature as well as practice. Because this study examined the connection between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations which is not examined by the previous studies on quality of life. As the literature is full of research on quality of life (Algahtani, Hassan, Alsaif, & Zrieq, 2021; Kuppermann et al., 2004), however, quality of life is not examined in relation to the variables considered in the current study. Particularly, this relationship is quite unique in relation to the elderly people in Ranong, Thailand. Management of Ranong, Thailand should promote physical exercise and social connections among elderly people to promote quality of life. Additionally, the management of old age homes should also promote physical and mental functioning of elder people through physical exercise and social connections.

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# Expectations in Quality of Life of Elderly Person in Ranong, Thailand

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### Abstract

It is one of the major challenges to maintain a good level in quality of life for elderly people in Ranong, Thailand. Therefore, this study is an attempt to promote quality of life expectations. Thus, the objective of this study is to promote quality of life expectations in Ranong, Thailand. Consequently, the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations was considered. For this purpose, quantitative research study was carried out through cross-sectional research design. Questionnaire was used for data collection in Ranong, Thailand. Data were collected from elderly person's in Ranong, Thailand. Finally, data were analyzed through statistical software. Outcomes of the study highlighted that; physical exercise and social connections has major importance for quality of life expectations. Physical exercise has the ability to promote physical functions and maintain functions which further lead to the quality of life expectations. Additionally, social connections have the ability to decrease the loneliness among elderly people which lead to the better quality of life.

**Keywords.** Physical exercise, social connection, physical function, mental function, loneliness, quality of life expectations, Ranong.

### 1. Introduction

Quality of life is an important element of human life (Mueller et al., 2021). A sufficient level in quality of life is always require for a human to achieve. Due to high importance of quality of life, the individuals always try to achieve higher level of quality, however, it is not easy to maintain a significant level of quality. As it is highlighted in the literature that quality of life has vital importance in an individual's life (Rass et al., 2021). Generally, the quality of life is based on the

human health. A better level of health is the indication of better quality of life. Furthermore, it also includes confirmability in an individual's life. Therefore, majorly, the quality of life is based on better health and comfort.

However, it is not easy for elderly person to maintain a significant level in quality of life, because its elderly person involved in various diseases cannot maintain good quality of life. In Thailand, the maintenance of quality of life is also an issue. Particularly, in Ranong provinces, the quality of life is quite low for elder people which require significant strategies to promote quality of life. It is important to introduce various measures to promote elderly people's quality of life. Therefore, achievement of good quality of life is a challenge for an elderly person. As given in previous investigations that it is not easy to achieve a good level in quality of life by an elderly person (Salmanezhad, Momtaz, Sahhaf, Rassafiani, & Foladi, 2021). Generally, elder persons face several health issues which decreases the quality of life. The elderly person cannot enjoy the events with good health. In this situation, the quality of life expectations remains low for the elderly people. In this direction, this study is an attempt to highlight a framework to promote elderly people's quality of life. In the recent environment and with the passage of time, the chronic diseases are increasing which decreases the quality of life, particularly, for elder people. As in recent years, the COVID-19 decreases the quality of life (Zhang & Ma, 2020). Especially, COVID-19 has major effect on the elder people. The people having more age, for example, above sixty, are more effected due to COVID-19 as compared to the young people. In this direction, to promote quality of life, elder people require more prevention strategies to prevent from various chronic diseases. It is also important for the academicians to do the research on the elderly people's quality of life to promote better health for elder people.

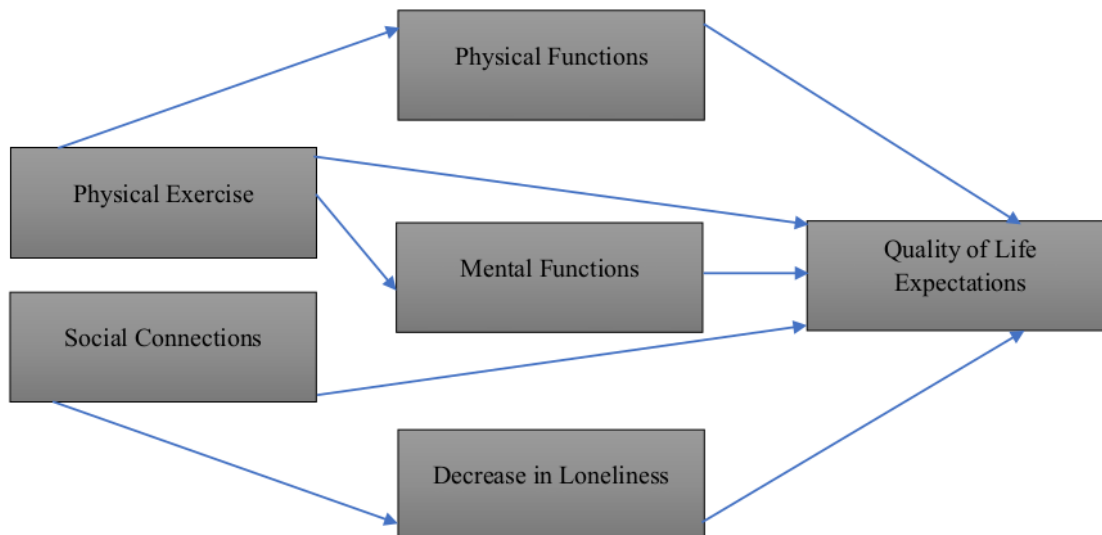
Generally, the old people have low level of physical functions. As compared to the young people, the physical functions of old people have low performance. This is one of the important reasons for low quality of life. Secondly, mental functions performance also remains low as compared to the young people. Both the mental and physical functions require sufficient level of quality for a human (FUJIO, SHIMADA, SUGIYAMA, & SATO, 2017) to spend a quality life. However, the elder people face the problem of low mental and physical functions. In addition to this, elder people also face the issues of loneliness which effect on their mental state. The mental wellbeing remains at low level due to loneliness. Therefore, mental health is most important for a human (Auerbach et al., 2018) to perform better and it is most important for the elder people to maintain quality of life.

The current study proposed that physical exercise has vital role in the better functioning of elder people. Physical exercise has the potential to promote physical functions as well as mental functions. In addition to this, social connections are important to decrease loneliness. Both the physical exercise and social connections has the potential to promote quality of life through physical exercise and social connections in Ranong, Thailand. Hence, the objective of this study is to promote quality of life expectations. In this direction, the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations was considered. Finally, by examining the role of physical exercise and social

connections, along with the role of physical functions, mental functions and loneliness in quality of life expectations, the current study has important contribution to the literature.

## 2. Literature Review

Ranong is one of Thailand's southern provinces, on the west coast along the Andaman Sea. It has the fewest inhabitants of all Thai provinces. Provinces neighboring Ranong are Chumphon, Surat Thani, and Phang Nga. To the west, it borders Kawthaung, Tanintharyi, Myanmar. Along with the other provinces of Thailand, Ranong also has a considerable percentage of elder people. These elder people require various services to maintain a quality of life. However, due to increase in age of people, they are suffering with different diseases. In this situation, the maintenance of a certain quality of life is quite tough. But he expectations among elderly people for better quality of life can be promoted. In this way, the current study proposed a framework to promote quality of life among elderly people of Ranong Thailand. According to the current study, the major reason for low quality of life among elder people is low level of physical functions and mental functions. Both the physical functions and mental functions has key importance to achieve better quality of life (Ishihara, Izawa, Noto, & Shimizu, 2021). Additionally, loneliness is also one of the reasons for low quality of life. Thus, it is needed to promote physical functions and mental functions and decrease the loneliness to enhance quality of life expectations among the elderly people. Thus, this study examined the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations which is shown in Figure 1.



**Figure 1.** Theoretical framework of the study showing the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations

### **2.1 Physical Exercise and Quality of Life Expectations**

Exercises are usually grouped into various types dependent on the impact they have on the human body of any individual. For instance, flexibility exercises such as extending advance the range of motion of muscles as well as joints; aerobic exercises such as walking as well as running emphasis on improving cardiovascular endurance; and anaerobic exercises. It is significant effect on the quality of life (German et al., 2021) of elder people because physical exercise can enhance muscles, joints and improving cardiovascular endurance. Ultimately, it increases the physical functions of an individuals. It also increases the level of confidence among the elder people which further lead to the better expectations in quality of life. It is also highlighted in previous studies that physical exercise has relationship with quality of life (Dauwan et al., 2021). Along with the physical functions, physical exercise also has influence on the mental functions. Mental functions are related to the human mind which has major importance in quality of life. Due to increase age, mental functions become reduced which has negative effect on quality of life. Therefore, it is important to improve mental function which can be promoted through physical exercise. As the physical exercise can increase the mental health of a human (Chekroud et al., 2018). Hence, the following hypotheses are proposed;

**Hypothesis 1.** Physical exercise has relationship with physical functions.

**Hypothesis 2.** Physical exercise has relationship with mental functions.

**Hypothesis 3.** Physical functions have relationship with quality of life expectations.

**Hypothesis 4.** Mental functions have relationship with quality of life expectations.

**Hypothesis 5.** Physical exercise has relationship with quality of life expectations.

**Hypothesis 6.** Physical functions mediate the relationship between physical exercise and quality of life expectations.

**Hypothesis 7.** Mental functions mediate the relationship between physical exercise and quality of life expectations.

### **2.2 Social Connections and Quality of Life Expectations**

Social connections are another important element which has positive role to promote quality of life. Social connections can promote quality of life through decrease in the loneliness of elderly people. Social connection is the experience of feeling close and associated to others. It includes feeling loved, cared for, and valued, as well as forms the basis of interpersonal relationships. The connections are one of the better sources to reduce the tension and stress. Social corrections decrease the loneliness of the people. As the elder people remain alone most the time, therefore, the social connections have major importance to decrease the level of loneliness. Previous studies also reported the relationship between social connections and quality of life (Dufåker, Jacobsson, & Åström, 1993), however, these studies are very limited. In this direction, the current study is an attempt to promote quality of life among elderly people by decreasing loneliness through social connections. Hence, the following hypotheses are proposed;

**Hypothesis 8.** Social connections have relationship with decrease in loneliness.

**Hypothesis 9.** Decrease in loneliness has relationship with quality of life expectations.

**Hypothesis 10.** Social connections have relationship with quality of life expectations.

**Hypothesis 11.** Decrease in loneliness mediates the relationship between social connections and quality of life expectations.

### 3. Research Methodology

The current study is grounded on the relationship between variables. As this study examine the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations. The nature of this relationship is based on the primary data. By following the nature of relationship considered in this study, quantitative research study was carried out through cross-sectional research design. As several previous studies on quality of life also used primary data (Khan, Kamruzzaman, Rahman, Mahmood, & Uddin, 2021).

Thus, a questionnaire was designed for data collection. While developing a questionnaire, 5-point Likert scale was considered in this study. 5-point Likert scale is more preferable because it has the ability to ensure the originality of the data with the decrease in frustration level of respondents (Hameed, Basheer, Iqbal, Anwar, & Ahmad, 2018). Thus, this study designed a survey instrument which is based on the two major sections. The first section was based on the various information related to the respondent's profile and the second section was based on the scale items related to the key study variables; physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations.

Finally, the current study distributed 450 questionnaires among the elder people of Ranong, Thailand. Before the distribution of questionnaires, the instructions were given to the respondents and it was insured that the data from this questionnaire will only be used in the current research to achieve the study objective. Furthermore, this study only considered the people above the age 60. Therefore, this study considered the elder people above age 60. Finally, 245 questionnaires were returned from this survey. However, all the questionnaires were not useable because few questionnaires were missing the significant portion and few questionnaires were not filled with better level of interest. Therefore, these questionnaires were excluded from the study and total 234 questionnaires were used for data analysis through statistical tool.

### 4. Findings

Table 1 shows the data statistics including the missing value, mean, median, outlier and normality of the data.

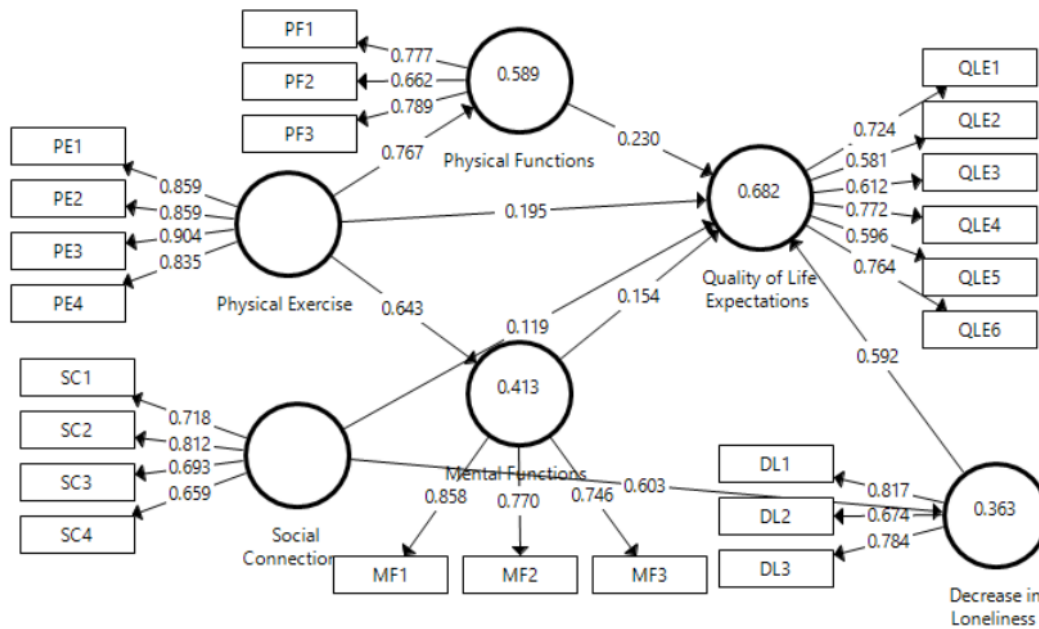
**Table 1.** Data Statistics

	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
PE1	1	0	1.627	1	1	5	0.963	3.451	1.875

PE2	2	0	2.131	2	1	5	1.23	0.689	1.281
PE3	3	0	1.882	1	1	5	1.193	1.281	1.465
PE4	4	0	2.085	2	1	5	1.096	0.722	1.122
SC1	5	0	1.686	1	1	5	1.026	2.444	1.727
SC2	6	0	2.176	2	1	5	1.144	0.86	1.209
SC3	7	0	1.804	2	1	5	0.971	1.38	1.314
SC4	8	0	2.111	2	1	5	0.852	2.137	1.128
PF1	9	0	2.026	2	1	5	1.268	0.793	1.35
PF2	10	0	2.137	2	1	5	1.138	0.778	1.125
PF3	11	0	1.758	2	1	5	0.97	1.763	1.457
MF1	12	0	1.974	2	1	5	1.029	2.048	1.472
MF2	13	0	1.745	1	1	5	1.007	2.814	1.735
MF3	14	0	1.85	2	1	5	1.015	2.168	1.482
DL1	15	0	1.974	2	1	5	1.096	1.64	1.435
DL2	16	0	1.889	2	1	5	0.89	2.953	1.514
DL3	17	0	1.791	2	1	5	0.961	2.655	1.592
QLE1	18	0	1.889	2	1	5	0.911	2.462	1.426
QLE2	19	0	1.752	2	1	5	1.012	3.175	1.817
QLE3	20	0	1.908	2	1	5	0.888	1.413	1.142
QLE4	21	0	1.889	2	1	5	1.088	2.118	1.576
QLE5	22	0	1.752	2	1	5	0.827	1.572	1.195
QLE6	23	0	1.68	2	1	5	0.837	2.913	1.541

This study utilized Partial Least Square (PLS) for data analysis (J. Hair, Hollingsworth, Randolph, & Chong, 2017; J. F. Hair, Sarstedt, Pieper, & Ringle, 2012). Figure 2 indicates the factor loadings which is also given in Table 2. Factor loadings should be higher than 0.5 in the current study. As given in Table 2, factor loadings are above 0.5.





**Figure 2.** Measurement Model

**Table 2.** Factor Loadings

	Decrease in Loneliness	Mental Functions	Physical Exercise	Physical Functions	Quality of Life Expectations	Social Connections
DL1	0.817					
DL2	0.674					
DL3	0.784					
MF1		0.858				
MF2		0.77				
MF3		0.746				
PE1			0.859			
PE2			0.859			
PE3			0.904			
PE4			0.835			
PF1				0.777		
PF2				0.662		
PF3				0.789		
QLE1					0.724	
QLE2					0.581	
QLE3					0.612	
QLE4					0.772	
QLE5					0.596	

QLE6	0.764	
SC1		0.718
SC2		0.812
SC3		0.693
SC4		0.659

In this process, this study also examined composite reliability (CR) and average variance extracted (AVE). Both the value of CR and AVE must be above 0.7 and 0.5, respectively (F. Hair Jr, Sarstedt, Hopkins, & G. Kuppelwieser, 2014; Hair Jr, Hult, Ringle, & Sarstedt, 2016). It is given in Table 3; all the values are above 0.7 and 0.5. Finally, discriminant validity is examined by using HTMT ratio as shown in Table 4.

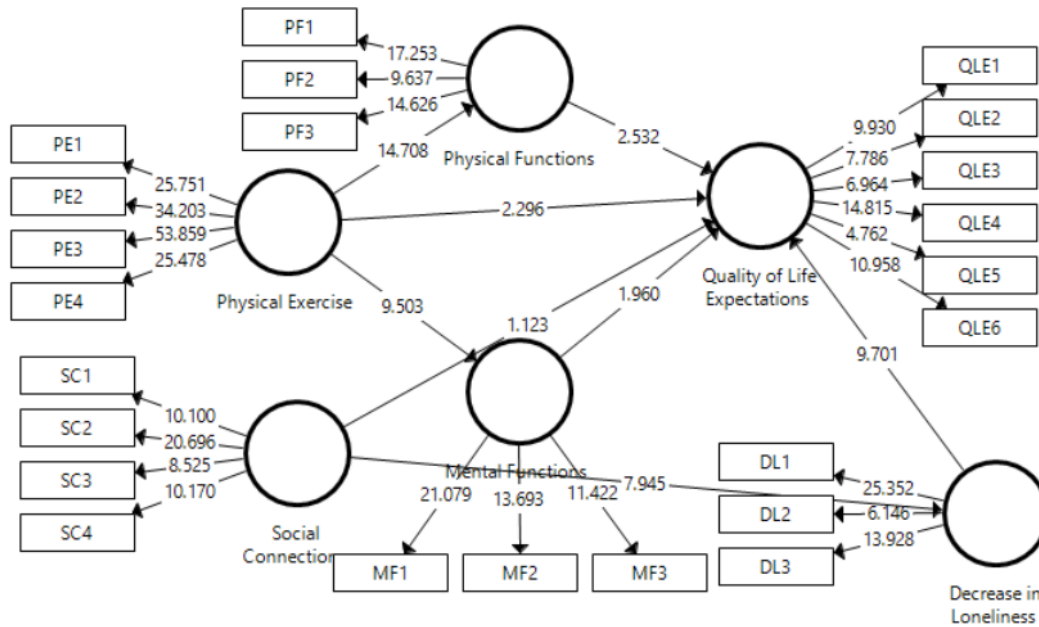
**Table 3.** Reliability and Convergent Validity

	Cronbach's Alpha	rho A	Composite Reliability	(AVE)
Decrease in Loneliness	0.734	0.749	0.803	0.578
Mental Functions	0.701	0.705	0.835	0.628
Physical Exercise	0.887	0.889	0.922	0.747
Physical Functions	0.796	0.704	0.788	0.555
Quality of Life Expectations	0.765	0.771	0.836	0.562
Social Connections	0.793	0.704	0.813	0.522

**Table 4.** HTMT

	Decrease in Loneliness	Mental Functions	Physical Exercise	Physical Functions	Quality of Life Expectations	Social Connections
Decrease in Loneliness						
Mental Functions	0.511					
Physical Exercise	0.694	0.816				
Physical Functions	0.896	0.758	0.549			
Quality of Life Expectations	0.512	0.885	0.582	0.842		
Social Connections	0.891	0.806	0.897	0.828	0.806	

The relationship between variables is tested through PLS structural model as given in Figure 3 (Hameed, Nisar, & Wu, 2020). Results are given in Table 5 and Table 6. Table 5 shows that physical exercise has positive effect on physical functions and mental functions. Both the physical functions and mental functions has positive effect on quality of life expectations. As the t-value is above 1.96 for these relations and beta value is positive. Physical exercise has positive effect on quality of life expectations directly. Furthermore, social connections have positive effect to decrease the loneliness, however, it has no direct effect on quality of life,



**Figure 4.** Structural Model

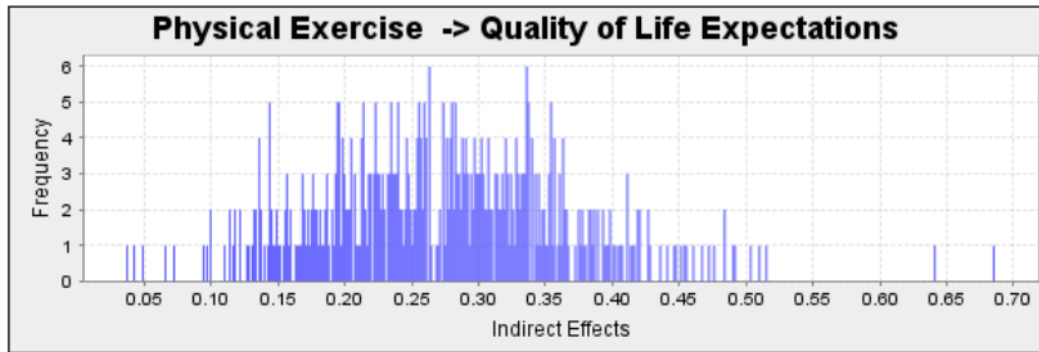
**Table 5.** Direct Effect Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Decrease in Loneliness -> Quality of Life Expectations	0.592	0.593	0.061	9.701	0
Mental Functions -> Quality of Life Expectations	0.154	0.152	0.078	1.96	0.05
Physical Exercise -> Mental Functions	0.643	0.649	0.068	9.503	0
Physical Exercise -> Physical Functions	0.767	0.766	0.052	14.708	0
Physical Exercise -> Quality of Life Expectations	0.195	0.191	0.085	2.296	0.022
Physical Functions -> Quality of Life Expectations	0.23	0.228	0.091	2.532	0.012
Social Connections -> Decrease in Loneliness	0.603	0.608	0.076	7.945	0
Social Connections -> Quality of Life Expectations	0.119	0.116	0.106	1.123	0.262

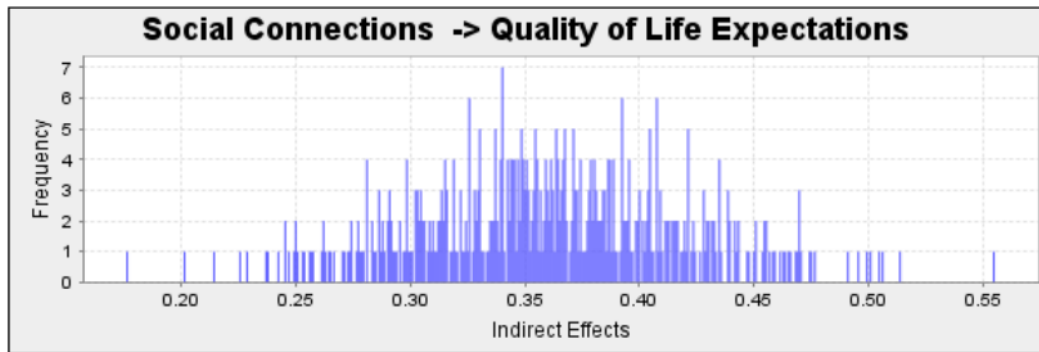
Finally, the mediation effect is given in Table 6 which shows that mediation effect of decrease in loneliness mediates the relationship between social connections and quality of life expectations. In the similar way, mediation effect of physical functions is significant between physical exercise and quality of life expectations. However, the mediation effect of mental functions is not significant between physical exercise and quality of life expectations. As the t-value 1.924 is below 1.96. Additionally, indirect effect histograms are given in Figure 4 and Figure 5.

**Table 6.** Indirect Effect Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Social Connections -> Decrease in Loneliness -> Quality of Life Expectations	0.357	0.36	0.057	6.258	0
Physical Exercise -> Mental Functions -> Quality of Life Expectations	0.099	0.098	0.051	1.924	0.055
Physical Exercise -> Physical Functions -> Quality of Life Expectations	0.177	0.175	0.072	2.464	0.014



**Figure 4.** Indirect effect of physical functions between physical exercise and quality of life expectations and quality of life expectations



**Figure 5.** Indirect effect of decrease in loneliness between social connections and quality of life expectations

## 5. Conclusion

This study was an attempt to promote quality of life expectations by examining the relationship between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations. The objective of this study was to promote quality of life expectations in Ranong, Thailand. For this purpose, quantitative research study was carried out

through cross-sectional research design and a questionnaire was designed for data collection. Results of the study highlighted that; physical exercise and social connections has major importance for quality of life expectations. It is found that; physical exercise has positive influence on physical functions and physical functions have positive role to promote quality of life. In a similar way, mental functions can be improved through physical exercise which can increase quality of life. Thus, physical exercise has the ability to promote physical functions and maintain functions which further lead to the quality of life expectations. Furthermore, social connections have positive influence to decrease loneliness of elderly people which lead to the better quality of life expectations. Hence, social connections have the ability to decrease the loneliness among elderly people which lead to the better quality of life. Finally, both the physical exercise and social connections of elderly people can increase the quality of life expectations.

## **6. Implications of the Study**

Results of the current study has major importance for the literature as well as practice. Because this study examined the connection between physical exercise, social connections, physical functions, mental functions, loneliness and quality of life expectations which is not examined by the previous studies on quality of life. As the literature is full of research on quality of life (Algahtani, Hassan, Alsaif, & Zrieq, 2021; Kuppermann et al., 2004), however, quality of life is not examined in relation to the variables considered in the current study. Particularly, this relationship is quite unique in relation to the elderly people in Ranong, Thailand. Management of Ranong, Thailand should promote physical exercise and social connections among elderly people to promote quality of life. Additionally, the management of old age homes should also promote physical and mental functioning of elder people through physical exercise and social connections.

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# Expectations in Quality of Life of Elderly Person in Ranong, Thailand

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