

Mental Health and Spiritual Well-being of Senior Citizens Residing in a Community, Kathmandu

Adhikari S, Pandey A

Department of Pediatric Nursing,
Maharajgunj Nursing Campus,
Institute of Medicine, Tribhuvan University,
Kathmandu, Nepal.

Corresponding Author

Apsara Pandey
Department of Pediatric Nursing,
Maharajgunj Nursing Campus,
Institute of Medicine, Tribhuvan University,
Kathmandu, Nepal.
E-mail: apsara.pandey@mnc.tu.edu.np

Citation

Adhikari S, Pandey A. Mental Health and Spiritual Well-Being of Senior Citizens Residing in a Community, Kathmandu. *Kathmandu Univ Med J.* 2026; 94(1): 80-7.

ABSTRACT

Background

Senior citizens face many physical, social, and psycho-emotional needs and challenges. Mental health and spiritual well-being are critical components among senior citizens residing in communities where support systems vary and affect overall health and quality of life.

Objective

To identify the mental health and spiritual well-being of senior citizens.

Method

A descriptive cross-sectional study was conducted among 207 senior citizens in a community. A non-probability convenience sampling technique was used. Respondents were interviewed using the General Health Questionnaire-12 (GHQ-12) and the Spiritual Well-being Scale (SWBS) Nepali version. Data was collected from September 17 to October 14, 2023. The data were analyzed using frequency, mean, and percentage. The Chi-square test was used to measure the association of mental health and spiritual well-being with selected variables. Pearson correlation was used to measure the relationship between mental health and spiritual well-being of senior citizens.

Result

The findings of the study showed that 59.9% of respondents had good mental health. The majority (64.3%) of respondents had a moderate level of spiritual well-being. There was a negative correlation between the GHQ-12 score and spiritual well-being score ($r = -0.567$) at a 95% confidence level with a p -value < 0.001 .

Conclusion

More than half of the respondents had good mental health, and the majority of respondents had a moderate level of spiritual well-being. This study provides evidence of a significant correlation between the mental health and spiritual well-being of senior citizens.

KEY WORDS

Elderly, Mental health, Quality of life, Spirituality

INTRODUCTION

Aging is caused by the buildup of numerous types of cellular and molecular damage over time, leading to a gradual decrease in physical and mental abilities. The aging population is increasing globally and projected to reach 1.5 billion elderly people in 2050.^{1,2}

Mental health and well-being in older age are as crucial as at any stage of life, and there is a high risk of mental illness, neurological issues, and substance abuse.^{1,3} Risk factors of mental illness and stressors are more prevalent in later life, such as a considerable ongoing loss of capacities and a decline in functional ability.¹ Around 15.0% of people 60 and older experience mental illness in the world.¹ Older people have a greater prevalence of depressive disorders than younger people.⁴

In Nepal, there is a higher prevalence of depression among the elderly. The prevalence of depressive symptoms ranged from 25.5% to 60.6% in the community.⁵ However, mental health in the elderly is under-prioritized. Health, longer life expectancy, quality of life, coping with stressors, and crisis events are greatly influenced by one's spiritual well-being.^{6,7} This study aimed to assess the mental health and spiritual well-being of senior citizens residing in a community.

METHODS

A descriptive cross-sectional study design based on a quantitative approach was used to find out the mental health status and spiritual well-being of senior citizens aged 60 years and above residing in Dakshinkali Municipality, Kathmandu. Both males and females who were able to communicate and were available during the data collection period were included in the study. Additionally, the oldest senior was included in the families with two or more senior citizens. Elderly individuals who are severely ill, bedridden, or diagnosed as mentally ill were excluded from the study. A total of 207 senior citizens were conveniently selected. This sample size was calculated using the Cochran formula: $n_0 = \frac{Z^2 pq}{e^2}$, where the prevalence of psychiatric morbidity among the population aged > 60 years is 21.94% with a margin of error of 5.0% and adjustment for a finite population ($N=1006$) using the formula $n = \frac{n_0}{(1+n_0-1/N)}$, where $N=1006$.

A structured interview schedule was used for data collection, consisting of three parts. Part one included socio-demographic variables such as age, sex, religion, ethnicity, education, occupation, number of children, living arrangement, social involvement, involvement in family decision making, as well as variables related to morbidity status and lifestyle patterns. Part two was aimed at assessing the level of mental health status using the standard tool GHQ12, developed by Goldberg, consisting of 12 items. Each item of the GHQ-12 was rated on a 4-point scale, with responses including "less than usual," "no more

than usual," "rather more than usual," or "much more than usual." A bimodal scoring method was used in this study, where "less than usual" and "no more than usual" were both worth 0 points, and "rather more than usual" and "much more than usual" were each worth one point. A score of 3 or higher using the binary scoring method (0-0-1-1) represented psychiatric cases in the current study. The Nepali version of GHQ12 was used in the Nepali population with a Cronbach's alpha coefficient of 0.88.⁹

Part three involves assessing spiritual well-being using the standard tool, the Spiritual Wellbeing Scale (SWBS), developed by Ray Paloutzian and Craig W. Ellison, which consists of 20 items. The SWBS includes two subscales: The Religious Well-Being Scale (RWBS) and the Existential Well-Being Scale (EWBS). Each item is rated on a 6-point Likert scale, with responses ranging from "Strongly Agree" to "Strongly Disagree," with appropriate gradations in between. Each SWBS item is scored from 1 to 6, with higher scores indicating greater well-being. Negatively worded items are reverse scored, with positively worded items numbered 3, 4, 7, 8, 10, 11, 14, 15, 17, 19, and 20, and negatively worded items numbered 1, 2, 5, 6, 9, 12, 13, 16, and 18. Scores of 20-40 indicate low spiritual well-being, scores of 41-99 indicate moderate spiritual well-being, and scores of 100-120 indicate high spiritual well-being.

The reliability coefficients of RWBS are 0.96, 0.99, 0.96, and 0.88. Similarly, for EWBS, the reliability coefficients are 0.86, 0.98, 0.98, and 0.73. As a whole, for SWBS, the reliability coefficients are 0.93, 0.99, 0.99, and .82 in the findings of four research studies.¹⁰ The SWBS contains good face validity. SWBS, RWBS, and EWBS are positively correlated with a sense of purpose in life, physical health, and emotional adjustment.¹⁰

Translation in the Nepali language and back translation were done with the help of a bilingual expert. Content validity of the SWBS Nepali version was established by consulting with 5 subject matter experts. Pretesting was conducted in Suryavinayak Municipality. Cronbach's alpha was calculated. Cronbach's alpha coefficient of GHQ12 was 0.710, and Cronbach's alpha coefficient of RWBS was 0.716, and EWBS was 0.727.

The research proposal was approved by the Research Committee of Maharajgunj Nursing Campus, and ethical approval was obtained from the Institutional Review Committee [Ref. no.: 35(6-11) E2/2080-81]. Administrative approval was obtained from the Dakshinkali Municipality. Informed consent was obtained from all respondents after explaining the purpose, procedure, and risks and benefits of the study. Respondents were informed that they could withdraw from the study at any time during the study period. Confidentiality was maintained by using research findings only for research purposes and by assuring respondents of this. Similarly, confidentiality was maintained by not revealing their individual identities in the report findings. Data were stored in a personal computer in a password-

protected file that was accessed by the researcher only. The paper sheets of data collection were kept in a locked closet. The respondents with poor mental health were helped to make contact with health personnel.

Data was collected using a structured interview schedule. In-person interviews were conducted. The researcher visited different wards of Dakshinkali Municipality and met with ward representatives to easily identify the addresses of senior citizens. The respondents were met at their own residences. No physical or mental harm was done to the respondents. The data were collected from 17 September 2023 to 14 October 2023.

Data was checked for completeness, correctness, and internal consistency of information. All data were compiled, edited, classified, and coded manually on the same day as data collection.

Data were entered into SPSS version 20. The data were analyzed using descriptive statistics such as frequency, percentage, mean, median, and quartile. Inferential statistics were then used. The chi-square test was used to identify the association between mental health and selected variables, as well as spiritual well-being and selected variables. The Pearson correlation test was used to identify the relationship between mental health and spiritual well-being of senior citizens.

RESULTS

Table 1 shows that 46.9% of the respondents were between the age group of 60 to 65. The overall mean and standard deviation of age in years was 67.05 ± 5.26 . Additionally, 52.7% of the re-spondents were female, with the majority (66.7%) being Brahmin/Chhetri. Similarly, 87% identified as Hindu, and 44.9% of respondents were not able to read and write. Furthermore, most (79.2%) of the respondents were married, and 71.2% had more than 2 children, with most (70.5%) of respondents living with their spouse and children. Similarly, only 47 (22.7%) of respondents were currently involved in any occupation, 15.5% received a pension, and 37.7% of respondents received allowances.

Involvement in Family Decision Making and Social Organization

Regarding involvement in family decision making and social organization, 66.2% of respondents were always involved in family decision making, and 18.4% were engaged in social organizations. The majority (65.8 %) were involved in cooperatives.

Morbidity Status and Lifestyle Patterns

Regarding the morbidity status, 54.1% of the respondents were suffering from diagnosed health problems, with cardiovascular diseases being the most prevalent at 51.8%. Additionally, 86.9% of the respondents never consumed alcohol, and 82.6% did not smoke. Similarly, 82.6% of the

Table 1. Respondents' socio-demographic characteristics (n=2070)

Variables	Number	Percent
Age in completed years		
60-65	97	46.9
65-70	63	30.4
70-75	30	14.5
75-80	17	8.2
Mean Age ± SD	67.05 ± 5.26	
Sex		
Male	98	47.3
Female	109	52.7
Ethnicity		
Brahmin/Chhetri	138	66.7
Janajati	61	29.5
Dalit	7	3.4
Madhesi	1	0.5
Religion		
Hinduism	180	87.0
Christianity	19	9.2
Buddhism	8	3.9
Education level		
Can not read and write	93	44.9
Basic level	92	44.4
Secondary level	18	8.7
Above secondary level	4	1.9
Marital Status		
Married	164	79.2
Widow/Widower	40	19.3
Unmarried	2	1.0
Divorced	1	0.5
No of Children (n=205)		
< 3	59	28.8
≥ 3	146	71.2
Median (Q1, Q3)	3 (2,4)	
Living with		
With spouse and children	146	70.5
With children	33	15.9
With spouse	20	9.7
Alone	8	3.9
Occupation and income sources (n=47)		
Agriculture	29	14
Business	8	3.9
Service	9	4.3
Labor	1	0.5
Receiving pension	32	15.5
Receiving allowances	78	37.7

re-spondents were vegetarians, and 40.1 % did not engage in any physical activities (Table 2).

Table 2. Respondents' morbidity status and lifestyle patterns (n=207)

Variables	Number	Percent
Diagnosed health problems (n=112)		
Respiratory diseases	30	26.8
Cardiovascular diseases	59	52.7
Musculoskeletal diseases	9	8.0
Endocrine diseases	34	30.4
Alcohol drinking (n=207)		
Daily	1	0.5
Occasionally	15	7.2
Used in the past	25	13.1
Never	166	86.9
Amount of alcohol intake (n=16)		
1 glass	7	43.7
2 glass	9	56.3
Smoking habit		
Current smoker	36	17.4
Past smoker	51	29.8
Never smoke	171	82.6
Number of cigarettes per day (n=36)		
< 5	11	30.6
≥5	25	69.4
Dietary pattern		
Vegetarian	171	82.6
Non-vegetarian	36	17.4
Involvement in physical activity		
Household activities	73	35.3
Farming	29	14
Physical exercise	21	10.1
Labor	1	0.5
No any activity	83	40.1

*Multiple Responses

Mental Health Status

Regarding the respondents' responses on the GHQ12 for health status assessment, 95.7% of re-spondents reported feeling happy, all things considered same as usual. Similarly, 93.2% of re-spondents felt capable of deciding things as usual. Likewise, 88.9% of respondents were able to enjoy their normal day-to-day activities same as usual (Table 3).

Regarding the overall level of mental health status of the respondents, the most (59.9%) of re-spondents had good mental health, whereas 40.1 % of respondents had poor mental health (Table 3).

The mental health of the respondents is significantly associated with age ($p < 0.01$), education level ($p < 0.01$), employment status ($p=0.02$), and involvement of respondents in family decision making ($p<0.1$). Similarly, there is a significant association of mental health status with disease condition ($p < 0.01$), dietary pattern ($p=0.02$), and physical activity ($p < 0.01$) (Table 4).

Table 3. Mental health status of the respondents (n=207)

Statements	1 n(%)	2 n(%)	3 n(%)	4 n(%)
Negative				
Lost much sleep over worry	34(16.4)	114(55.1)	59(28.5)	
Felt constantly under strain	23(11.1)	127(61.4)	57(27.5)	
Felt you could not overcome difficulties	18(8.7)	139(67.1)	49(23.7)	
Been feeling unhappy and depressed	26(12.6)	139(67.1)	42(20.3)	1(0.5)
Been losing confidence in yourself	13(6.3)	71(34.3)	123(59.4)	
Been thinking of yourself as a worthless person	76(36.7)	128(61.8)	3(1.4)	
Positive				
Been able to concentrate on what you're doing		136(65.7)	71(34.3)	
Felt you were playing useful parts in things	1(0.5)	163(78.7)	43(20.8)	
Been able to face up to your problems	1(0.5)	154(74.4)	52(25.1)	
Felt capable of making decisions about things		193(93.2)	14(6.8)	
Being feeling reasonably happy all things considered		198(95.7)	9(4.3)	
Being able to enjoy your normal day to day activities	1(0.5)	184(88.9)	22(10.6)	
Level of Mental Health Status				
Good (< 3.00)	124	59.9	1(0.5)	
Poor (3.00+)	83	40.1		

*1=Not at all, 2=No more than usual, 3=Rather more than usual, 4=Much more than usual for negative Statement

1= More than usual, 2=Same as usual, 3=less than usual, 4=Much less than usual for positive statement

Level of Spiritual Wellbeing

Regarding the spiritual well-being, the majority (63.8%) of respondents strongly disagree with the statement, "don't find much satisfaction in private prayer with god." Similarly, 48.3% of respondents disagree with the statement, "I feel unsettled about my future". Likewise, 45.9% of respondents agree with the statement, "I believe there is some real purpose for my life," and 44% of re-spondents agree with the statement, "I believe god is concerned about my problems" (Table 5).

In terms of level of spiritual well-being, 35.7% of respondents had a high level of spiritual well-being with a median value of 96 and Q1, Q3 = 85, 104, whilst the majority (64.3%) had a moderate level (Table 6). There is a significant association of level of spiritual wellbeing with religion ($p=0.006$), involvement of respondents in family decision making ($p=0.031$), disease condition ($p=0.041$), and dietary pattern ($p \leq 0.01$) (Table 7).

Table 4. Association of mental health status with selected variables (n=207)

Variables	Mental health status		Chi-value	P-value
	Poor n(%)	Good n(%)		
Age				
< 70	43(29.9)	101(70.1)	20.637	<0.01
≥ 70	40(63.5)	23(36.5)		
Sex				
Male	40(40.8)	58 (59.2)	0.4	0.841
Female	43(39.4)	66(60.6)		
Education level				
Cannot read and write	55(59.1)	38(40.9)	25.496	<0.01
Can read and write	28(24.6)	86(75.4)		
Employment status				
Yes	12(25.5)	35(74.5)	5.37	0.02
No	71(44.4)	89(55.6)		
Living with				
with spouse and children	56(38.4)	90(61.6)	0.625	0.429
Others*	27(44.3)	34(55.7)		
Involvement in family decision making				
Sometimes	42(60.0)	28(40.0)	17.444	<0.01
Always	41(29.9)	96(70.1)		
Involvement in social organization				
Yes	10(26.3)	28(73.7)	3.68	0.055
No	73(43.2)	96(56.8)		
Diagnosed diseases				
Yes	59(52.7)	53(47.3)	16.084	<0.01
No	24(25.3)	71(74.7)		
Alcohol drinking				
Yes	9(56.3)	7(43.8)	1.884	0.170
No	74(38.7)	117(61.3)		
Smoking				
Yes	22(61.1)	14(38.9)	8.012	0.050
No	61(35.7)	110(64.3)		
Dietary pattern				
Vegetarian	77(45.0)	94(55.0)	9.96	0.002
Non-vegetarian	6(16.7)	30(83.3)		
Physical activity				
Yes	37(29.8)	87(70.2)	13.548	<0.01
No	46(55.4)	37(44.6)		

*Alone, with spouse only, with children only

Relationship between Mental Health Status and Spiritual Well-being

The mental health status and the level of spiritual well-being are significantly associated ($p < 0.01$) (Table 8). There is a negative correlation between the mental status (GHQ-12 score) and the spir-itual score ($r = -0.567$) at a 95.0% confidence level with a p -value < 0.001 (Table 9).

DISCUSSIONS

The present study examined the mental health status and spiritual well-being of senior citizens residing in a community. This study also identifies the relationship between mental health status and spiritual well-being among elderly people. The findings of the study showed that 59.9% of respondents had good mental health, while 40.1% of respondents had poor mental health status, highlighting significant challenges in the mental health of the studied population. This finding is aligned with a study conducted in Kolkata, India, which reported that 36.95% of older adults had mental illness.¹¹ However, a study conducted in eastern Nepal to measure mental health problems among old people reported a lower prevalence, with 26.43% of participants having mental problems.¹² Another study conducted in India reported a prevalence of 59.2% of psychiatric morbidity in the rural geriatric population.¹³ Studies conducted in India reported a lower prevalence (23.7%)¹⁴ and 24%¹⁵ of psychiatric morbidity among the elderly population than this study.¹⁵ Similarly, a study conducted in China reported that 23.8% of the elderly had poor mental health.¹⁶ These differences might be due to variations in population characteristics, the research setting, and sampling methods of the study.

The current study revealed a significant association between the mental health status of senior citizens and factors such as age ($p \leq 0.01$), employment status ($p=0.02$), always involved in family decision making ($p \leq 0.01$), dietary pattern ($p=0.02$), and physical activity ($p \leq 0.01$). These findings suggest that demographic and other modifiable factors influence the mental health status of senior citizens. Advancing age increases the risk of chronic illnesses and reduces resilience. Age is a risk factor for anxiety and self-rated health in the elderly.¹⁷ Similarly, occupational engagement supports mental health, and unemployed seniors have a higher risk of depression.¹⁸ Involvement in family decision-making empowers autonomy and increases confidence, which supports the mental health of the elderly.¹⁹ Dietary habits also improve mental health via nutrient impacts on brain function and inflammation.²⁰ Physical activities improve sleep and mental health in the elderly.²¹

These findings are consistent with various other studies conducted in different settings. Studies conducted in China revealed a significant association between the mental health of the elderly and educational level, age, income; physical activity and chronic diseases.^{16,22} Another study conducted in Portugal reported a statistically significant association between the mental health of the elderly and age, employment status, and chronic diseases.²³ A study conducted in Kathmandu revealed a significant association between depression in older adults and illiteracy, the presence of physical health problems, physical immobility, and involvement in family decision-making.⁵

The findings of this study showed that the majority (64.3%)

Table 5. Spiritual well-being of the respondents (n=207)

Statements	1	2	3	4	5	6
	n(%)	n(%)	n(%)	n(%)	n(%)	n(%)
Don't find satisfaction in prayer with god.				19(9.2)	56(27.1)	132(63.8)
Don't know who I am, where I came from, or going.	57(27.5)	7(3.4)	7(3.4)	17(8.2)	86(41.5)	33(15.9)
God loves and cares me.	78(37.7)	82(39.6)	47(22.7)			
life is a positive experience.	42(20.3)	88(42.5)	76(36.7)	1(0.5)		
God is impersonal and not interested in my situations.			3(1.4)	69(33.3)	61(29.5)	74(35.7)
Feel unsettled about future.		2(1.0)	43(20.8)	100(48.3)	37(17.9)	25(12.1)
Have meaningful relationship with god.	49(23.7)	67(32.4)	86(41.5)	5(2.4)		
Feel fulfilled and satisfied with life.	32(15.5)	83(40.1)	74(35.7)	18(8.7)		
Don't get strength from god.			3(1.4)	63(30.4)	56(27.1)	85(41.1)
Feel a sense of wellbeing about the direction my life is headed in.	37(17.9)	83(40.1)	80(38.6)	7(3.4)		
God is concerned about my problems.	45(21.7)	62(30.0)	91(44.0)	9(4.3)		
Don't enjoy much about life.			12(5.8)	73(35.3)	59(28.5)	63(30.4)
Have a personally satisfying relationship with god.			3(1.4)	76(36.7)	47(22.7)	81(39.1)
Feel good about my future.	7(3.4)	29(14.0)	121(28.5)	50(24.2)		
My relationship with god helps me not to feel lonely.	57(27.5)	72(27.5)	73(35.3)	5(2.4)		
Life is full of conflict and unhappiness.			15(7.2)	56(27.1)	60(29.0)	76(36.7)
Feel most fulfilled in close communion with god.	72(34.8)	68(32.9)	66(31.9)	1(0.5)		
Life doesn't have meaning.	1(0.5)		26(12.6)	89(43.0)	17(8.2)	74(35.7)
Relation with god contributes to sense of well-being.	57(27.5)	79(38.2)	68(32.9)	3(1.4)		
There is real purpose for my life.	17(8.2)	35(16.9)	95(45.9)	54(26.1)	5(2.4)	1(0.5)

Table 6. Level of spiritual wellbeing (n=207)

Level of Spiritual Wellbeing	Frequency	Percent	Median (Q1,Q3)
Moderate	133	64.3	96 (85,104)
High	74	35.7	

Table 7. Association of the level of spiritual well-being with selected variables (n=207)

Variables	Level of spiritual well-being		Chi-value	P-value
	Medium n (%)	High n (%)		
Age				
< 70	92(63.9)	52(36.1)	0.27	0.869
≥ 70	41(65.1)	22(34.9)		
Sex				
Male	68(69.4)	30(30.6)	2.138	0.144
Female	65(59.6)	44(40.4)		
Ethnicity				
Brahmin/Chhetri	87(63.0)	51(37.0)	0.263	0.608
Janajati/Dalit/Madhesi	46(66.7)	23(33.3)		
Religion				
Hinduism	122(67.8)	58(32.2)	7.472	0.006
Buddhism/Christianity	11(40.7)	16(59.3)		
Education level				
Cannot read and write	61(65.6)	32(34.4)	0.132	0.716
Can read and write	72(63.2)	42(36.8)		

Number of children					
< 3	38(64.4)	21(35.6)	0.008	0.928	
≥ 3	95(65.1)	51(34.9)			
Smoking					
Yes	33(91.7)	3(8.3)	14.26	<0.01	
No	100(58.5)	71(41.5)			
Dietary pattern					
Vegetarian	121(70.8)	50(29.2)	18.136	<0.01	
Non-vegetarian	12(33.3)	24(66.7)			

Table 8. Association between respondents' mental health status and level of spiritual well-being (n=207)

Variables	Level of spiritual well-being		Chi-Value	p-value
	Medium n(%)	High n(%)		
Mental Health Status				
Poor	75 (90.4)	8 (9.6)	41.125	<0.01
Good	58 (46.8)	66 (53.2)		

Table 9. Relationship between mental health status and spiritual well-being (n=207)

Variables	GHQ-12 Score	Spiritual well-being Score	p-value
Mental health status (GHQ-12 Score)		-0.567	< 0.001
Spiritual Wellbeing Score	-0.567		

**Correlation is significant at the 0.01 level (2-tailed)

of respondents had a moderate level of spiritual well-being, while the remaining 35.7% had a high level of spiritual well-being. These findings align with prior research in Iran, where the majority (85.2%) of older adults reported a moderate level of spiritual well-being, and 14.8% reported a high level of spiritual well-being. In contrast, a study conducted in India reported that the majority (68.89%) of the elderly population had poor spiritual health.²⁴ This difference may be attributed to the use of different instruments and sampling methods to assess the spiritual well-being of the elderly.

In this study, spiritual well-being is significantly associated with involvement in family decision-making ($p=0.031$), religion ($p=0.006$), smoking habit ($p \leq 0.01$), disease condition ($p=0.041$), and dietary pattern ($p \leq 0.01$). These findings also align with other prior studies. Higher spirituality reduces decisional conflicts.²⁵ Religious connection correlates with higher spiritual well-being and health behaviors.²⁶ Similarly, higher spiritual well-being correlates with reduced smoking prevalence and improved disease conditions, leading to better general health.²⁷ Likewise, the study also indicates that a positive link between spirituality and healthy dietary behavior.²⁶ In contrast, other studies have reported a significant association between the spiritual well-being of the elderly population and factors such as gender, marital status, number of children, income, and occupation.^{28,29} The variances could be attributed to variations in the study settings, sampling methods, and sample sizes.

In this study, there is a significant correlation between the mental health status (GHQ-12) score and the Spiritual Wellbeing Score ($r = -0.567$, $p < 0.01$), which shows as the GHQ-12 score. As the GHQ score increases, the spiritual

well-being score decreases. A higher GHQ score, indicating poorer mental health, corresponds to lower spiritual well-being. This inverse correlation aligns with previous significant correlations between GHQ-28 score and spiritual well-being among older adults in studies from Greece ($r = -0.735$, $p \leq 0.001$),³⁰ Brazil ($p = 0.001$)³¹ (Martinez & Custodio, 2014), and Turkey.³²

The study employed a cross-sectional study design, a non-probability sampling technique, and was conducted in one setting, which restricts the generalizability to other settings and populations.

CONCLUSION

More than half of the senior citizens in Dakshinkali Municipality had good mental health, and the majority of respondents had a moderate level of spiritual well-being. Additionally, senior citizens who had not experienced any medical conditions and those who consumed a non-vegetarian diet had better mental health. Non-smokers, non-vegetarians, individuals who were always involved in family decision-making, could read and write, senior citizens who were involved in an occupation and always involved in family decision-making, and those without any medical conditions had higher levels of spiritual well-being. Importantly, there was a moderate correlation between mental health and spiritual well-being.

The municipality could develop policies prioritizing a spiritual support program in the aging program. Similarly, health care providers might integrate spiritual care into geriatric mental health care support. Additionally, the findings of the study might be useful for future research studies.

REFERENCES

1. World Health Organization. Mental health of older adults [Internet]. Geneva: WHO; 2025 Sep 17 [cited 2025 Dec 22]. Available from: <https://www.who.int/news-room/fact-sheets/detail/mental-health-of-older-adults>
2. United Nations Department of Economic and Social Affairs Population Division. World Population Prospects 2024 [Internet]. New York: United Nations; 2024 [cited 2025 Dec 22]. Available from: <https://population.un.org/wpp/downloads>.
3. World Health Organization. Mental disorders [Internet]. Geneva: WHO; 2022 [cited 2023 Jul 20]. Available from: <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>
4. Sinha P, Hussain T, Boora NK, Rao GN, Varghese M, Gururaj G, et al. Prevalence of common mental disorders in older adults: results from the National Mental Health Survey of India. *Asian J Psychiatry*. 2021;55:102463. doi:10.1016/j.ajp.2020.102463
5. Simkhada R, Wasti SP, GC VS, Lee ACK. Prevalence of depressive symptoms and its associated factors in older adults: a cross-sectional study in Kathmandu, Nepal. *Aging Ment Health*. 2018;22(6):802-7. doi:10.1080/13607863.2017.1310803
6. Khalili Z, Sadrollahi A, Nazari R. Factors related and Spiritual Well-being among elderly referring to city parks of Khalkhal. *IJNR* 2016; 10 (4) :127-35. URL: <http://ijnr.ir/article-1-1635-en.html>
7. Fox N. Spiritual wellness: what is your meaning and purpose? *Washington: LHSFNA*; 2016 [cited 2025 Dec 22]. Available from: <https://www.lhsfna.org/spiritual-wellness-what-is-your-meaning-and-purpose/>
8. Ansari A, Nigam S. A study on the prevalence and determinants of psychiatric morbidity in the elderly population of rural areas of district Kanpur Nagar. *J Med Sci Clin Res*. 2020;8(6):153-9. doi:10.18535/jmscr/v8i6.25
9. Khatiwada J, Muzembo BA, Wada K, Ikeda S. The effect of perceived social support on psychological distress and life satisfaction among Nepalese migrants in Japan. *PLoS One*. 2021;16(2):e0246271. doi:10.1371/journal.pone.0246271
10. Bufford RK, Paloutzian RF, Ellison CW. Norms for the spiritual well-being scale. *J Psychol Theol*. 1991;19(1):56-70. <https://doi.org/10.1177/009164719101900106>
11. Chakraborty A, Mandal AK, Mukhopadhyay D, Ghosh S. Prevalence of mental illness among the old age people in urban areas: a study in Kolkata, West Bengal. *Asian J Med Sci*. 2022;13(3):158-63. doi:10.3126/ajms.v13i3.40881
12. Shakya DR, Maskey S. Psychiatric morbidities among old people of a city of Eastern Nepal. *J Psychiatr Assoc Nepal*. 2022;11(2):[page range if known]. Available from: <file:///C:/Users/Acer/Downloads/Psychiatric+morbidities+among+old+people.pdf>

13. Bandla S, Gopalan S, Nappinai NR, Mathumathi S, Sivachidambaram B. A study of psychiatric morbidity in the geriatric population living in old age homes and communities. *Arch Ment Health*. 2016;17(1-2):90. <https://doi.org/article/74bd1b311b6f4725909c1d7cdab2fb78>
14. Tiwari SC, Srivastava G, Tripathi RK, Pandey NM, Agarwal GG, Pandey S, et al. Prevalence of psychiatric morbidity amongst the community-dwelling rural older adults in northern India. *Indian J Med Res*. 2013;138(4):504-14. PMID: 24434257
15. Kwan P, Ali A, Deuri SP. Psychiatric morbidity, quality of life, and perceived social support among the elderly population: a community-based study. *Open J Psychiatry Allied Sci*. 2016;7(1):31-5. doi:10.5958/2394-2061.2016.00007.0.
16. Wang S, Li B, Ungvari GS, Ng CH, Chiu HFK, Kou C, et al. Poor mental health status and its associations with demographic characteristics and chronic diseases in Chinese elderly. *Soc Psychiatry Psychiatr Epidemiol*. 2016;51(10):1449-55. doi:10.1007/s00127-016-1271-y.
17. Gao M, Chen Z, Li J, Liu Y, Lv R, Chen H, et al. Physical and mental health status and influencing factors of older adults in community-dwelling in Northeast China: a cross-sectional study. *Front Public Health*. 2024;12:1465937. doi:10.3389/fpubh.2024.1465937.
18. Chia F, Huang WY, Huang H, Wu CE. Promoting healthy behaviors in older adults to optimize health-promoting lifestyle: an intervention study. *Int J Environ Res Public Health*. 2023;20(2):1628. doi:10.3390/ijerph20021628.
19. Lu L, Chen T, Li S, Lan T. Association between family economic decision-making power and survival outcomes among older adults in China: a population-based longitudinal study. *SSM Popul Health*. 2025;29:101749. doi:10.1016/j.ssmph.2025.101749.
20. Carcelén-Fraile MDC, Déniz-Ramírez NDP, Sabina-Campos J, Aibar-Almazán A, Rivas-Campo Y, González-Martín AM, et al. Exercise and nutrition in the mental health of the older adult population: a randomized controlled clinical trial. *Nutrients*. 2024;16(11):1741. doi:10.3390/nu16111741.
21. Hou B, Wu Y, Huang Y. Physical exercise and mental health among older adults: the mediating role of social competence. *Front Public Health*. 2024;12:1385166. doi:10.3389/fpubh.2024.1385166
22. Yang Y, Deng H, Yang Q, Ding X, Mao D, Ma X, et al. Mental health and related influencing factors among rural elderly in 14 poverty state counties of Chongqing, Southwest China: a cross-sectional study. *Environ Health Prev Med*. 2020 Sep 10;25(1):51. doi: 10.1186/s12199-020-00887-0. PMID: 32912134; PMCID: PMC7488569.
23. Chaves C, Duarte J, Ferreira C, Duarte J, Almeida J, Nunes S, et al. Mental health in the elderly. *Int J Arts Sci*. 2014;7(4):591-6. https://www.researchgate.net/publication/271130898_MENTAL_HEALTH_IN_THE_ELDERLY
24. Gaur KL, Zafer A, Bilonia S. Spiritual health assessment of geriatric population of Jaipur City (Rajasthan) India. *Int Multispeciality J Health*. 2015;1(3):25-8. https://www.researchgate.net/publication/281451114_Spiritual_Health_Assessment_of_Geriatric_Population_of_Jaipur_City_Rajasthan_India
25. Rego F, Gonçalves F, Moutinho S, Castro L, Nunes R. The influence of spirituality on decision-making in palliative care outpatients: a cross-sectional study. *BMC Palliat Care*. 2020;19(1):22. doi:10.1186/s12904-020-0525-3
26. Major-Smith D, Morgan J, Emmett P, Golding J, Northstone K. Associations between religious/spiritual beliefs and behaviors and dietary patterns: analysis of the parental generation in a prospective cohort study (ALSPAC) in Southwest England. *Public Health Nutr*. 2023;26(12):2895-2911. doi:10.1017/S1368980023001866
27. Divsalar K, Nejadnaderi S, Nakhaee N, Rouhani S. Religious attitude associated with general health and smoking in Iranian students. *Addict Health*. 2010;2(1-2):1-7. PMID: 24494094
28. Sadrollahi A, Khalili Z. Spiritual well-being and associated factors among the elderly population in Kashan. *J Geriatric Nurs*. 2015;1(2):94-104. <https://jgn.medilam.ac.ir/article-1-80-en.pdf>
29. Bailly N, Martinet G, Ferrand C, Agli O, Giraudeau C, Gana K, et al. Spirituality, social support, and flexibility among older adults: a five-year longitudinal study. *Int Psychogeriatr*. 2018;30(12):1745-52. doi:10.1017/S1041610218000029
30. Papathanasiou IV, Papathanasiou C, Malli F, Tsaras K, Papagiannis D, Kontopoulou L, et al. The Effect of Spirituality on Mental Health Among Hypertensive Elderly People: A Cross-sectional Community-based Study. *Mater Sociomed*. 2020 Sep;32(3):218-223. doi: 10.5455/msm.2020.32.218-223. PMID: 33424452; PMCID: PMC7780778.
31. Martínez BB, Custódio RP. Relationship between mental health and spiritual wellbeing among hemodialysis patients: a correlation study. *Sao Paulo Med J*. 2014;132(1):23-7. doi:10.1590/1516-3180.2014.1321606
32. Aydın A, Işık A, Kahraman N. Mental health symptoms, spiritual well-being, and meaning in life among older adults living in nursing homes and community dwellings. *Psychogeriatrics*. 2020;20(6):833-43. doi:10.1111/psyg.12613