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DETERMINANTS OF MENTAL HEALTH, SUBJECTIVE WELLBEING AND LIFE SATISFACTION AMONG ELDERLY

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ABSTRACT

The aging populationis rapidly growing all over the world. This cross sectional study aimed to estimatethe mental health, subjective wellbeing, and life satisfaction among elderly,to identify the relationship between the research variables and to identify the association of mental health, subjective wellbeing and life satisfaction with sociodemographic variables. Data were collected from asample of 200 elderly participants enrolled by convenience sampling technique. Asociodemographic questionnaire, the brief psychiatric rating scale, the scale ofpositive and negative experience, and the satisfaction with life scale were used tocollect data. The findings indicated that 8% of the participants had poor mentalhealth, and 6.5% reported as low life satisfaction. The subjective wellbeing of theparticipants, measured on a scale ranging from -24 to 24, had a median (IQR) scoreof 9 (4, 13), and 55% of participants scored above the median. A significantnegative correlation was found between poor mental health and subjective wellbeing ($r = -0.145$, $p = 0.040$). Additionally, life satisfaction showed a negative correlationwith poor mental health ($r = -0.376$, $p = 0.001$) and a significant positive correlationwith subjective wellbeing ($r = 0.206$, $p = 0.003$). Sociodemographic variables such asgender, educational status, occupation, financial status, religion, marital status, healthstatus, bereavement history, and duration of stay with a caregiver were significantlyassociated with mental health, subjective wellbeing, and life satisfaction amongelderly ($p = 0.05$). The study concluded that mental health, subjective wellbeing, andlife satisfaction among elderly were interrelated and influenced bybiopsychosocial factors

Key words: Mental Health, Subjective Wellbeing, Life satisfaction, Elderly.

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INTRODUCTION

As people often say age is a process as everyone goes through this stage intheir lifetime. They are, in fact, the protector of culture and optimism and symbols ofpower that help the young generation in the correct and socially acceptable code ofethics. This is the population of persons aged 60 plus years, and the aging populationis rapidly growing all over the world. Based on the global data in the year 2022, theelderly people contributed to 10% of the global population including 771 million ofthe total population count. [1] On the one hand, India today holds one of the highestdemographic stocks of youth and adolescents but in other side, the aging population inthe next twenty years is expected to be approximately 194 million. [2, 3] Kerala, holds asignificant elderly population

of around 4.8 million, according to the 2018 censuswhich highlights a marked contrast within India [4].

The elders have many difficulties, such as psychological, physical, social, andfinancial. It is known that they undergo emotional changes, loneliness, stress, memorydeterioration, and other general health issues. The physical and cognitive declinealong with loss of financial independence make the elders manage their lives with thehelp of others, this decreases their mental health, perceived wellbeing, and lifesatisfaction. This in turn results into a low quality of life among the elder individualsor senior citizens [5].

The psychosocial wellbeing of elderly persons is as much an entitlement asany other commonly recognized rights in society. It captures aspects connect to howthey reason, emotions they go through, and way to deal with their everyday life [6]. Psychological disorders according to research show that one in every elder has someform of mental illness. The major issues include; anxiety disorders, organic brainsyndrome, depression, and sleep disorders alongside trauma stress disorders [7]. The National Vital Statistics System shows that suicide rates have greatly risen among theelderly aged 55 to 75 years from the years 2001 and 2021 [8].

Subjective wellbeing (SWB) is defined as the holistic attitude of an elderlyperson to all the positive and negative elements of their life. Care of the elderly has emerged as an essential factor in works carried out regarding subjective wellbeing andquality of life [9]. Increased age, perceived health, perceived stress, household income, community engagement, and health problems affect the perceived wellbeing of theelderly [10]. Other research has indicated a higher subjective quality of life for theelderly who live with their families than those in nursing homes [11]

Furthermore, life satisfaction can be described as an optimistic 'look' of aperson over life about their feelings towards the past, present, and future. Perceivedand interpreted health can be defined as life satisfaction as an object of measurementthat affects psychological, biological, and sociological factors involved in health. It also encompasses justice and financial freedom which enables the elderly to have agood and satisfactory elderly life [12]. The elderly and their challenges and satisfactionin aging should be critically addressed as it is a focused issue. These are social relationssuch as relations with family members, and relations in the network of socialconnections, which all in all contribute to improving the life standards of the elderly [13].

Mental health, subjective wellbeing, and life satisfaction were also reported tobe relevant to the elderly's health indexes. Studies have been conducted to determinean increased understanding of the impact of these factors on elderly persons and theirhealth. There are no studies for all three researchvariables together in the context of the elderly population. To this end, the researcherwould have to examine the different antecedents that are anticipated to affect mental health, subjective wellbeing, and life satisfaction. Three research variables were ofinterest to the researcher hence the utilisation of standardised measures.

Research question

What are the factors that determine mental health, subjective wellbeing, and lifesatisfaction among elderly?

Statement of the problem

A cross sectional study to assess the determinants of mental health, subjective
wellbeing, and life satisfaction among elderly residing in AikkaranaduGramapanchayat at Ernakulam district, Kerala.

Objectives

1. To estimate the mental health, subjective wellbeing and life satisfaction among elderly
2. To identify the relationship between mental health, subjective wellbeing and life satisfaction among elderly
3. To identify the association of mental health, subjective wellbeing and life satisfaction among elderly with their selected socio demographic variables

Operational definitions

- **Elderly:** Refers to the people who were aged 60 years and above lived in Aikkaranadu Gramapanchayat, Ernakulam district.
- **Determinants:** Refers to the biopsychosocial factors that affects mental health, subjective wellbeing, and life satisfaction, which were assessed by using sociodemographic proforma.
- **Mental health:** Refers to the balanced state of biopsychosocial wellbeing with absence of mental disorders such as abnormal perceptions, disturbed thoughts, mood changes, impaired cognitive functions etc., which was assessed by using brief psychiatric rating scale.
- **Subjective wellbeing:** Refers to the positive and negative perceived feelings about one's own biopsychosocial functioning which includes good thoughts, pleasant experience in life, and joyful in real life situations etc. In that negative feeling of subjective wellbeing includes afraid of self and others, being angry and sad as measured by using scale of positive and negativeexperience.
- **Life satisfaction:** Refers to a person's evaluation of his or her satisfaction on biopsychosocial functioning such as achievements, need to change in life, excellency, and ideal life etc., which was assessed by using satisfaction withlife scale.

Assumptions

a) Elderly residing in Aikkaranadu Gramapanchayat may report varying levels of mental health, subjective wellbeing and life satisfaction
b) Mental health, subjective wellbeing and life satisfaction among elderly are interrelated to each other
c) Thesociodemographicdeterminants associated with mental health, subjective wellbeingand life satisfaction may different among elderly.

Hypotheses

- **H_{A1})** There is a significant relationship between mental health, subjective wellbeing and life satisfaction among elderly
- **H_{A2})** There is a significant association of mental health, subjective wellbeing and life satisfaction among elderly with their selected socio demographic variables.

MATERIALS AND METHODS

Research approach

The approach used in the present study was quantitative non-experimental approach

Research design

The research design used was descriptive cross-sectional design

Variables

Outcome variables: Mental health, subjective wellbeing and life satisfaction.

Sociodemographic variables:

Gender, age in years, educational status, occupation, financial status, religion, type of family, marital status, health status, history of bereavement, health status, history of negligence/trauma/abuse and relationship withcaregiver

Setting of the study

IVth & Vth wards of Aikkaranadu Gramapanchayat at Ernakulam district, Kerala.

Population

Target population

Elderly residing in Ernakulam district, Kerala

Accessible population

Elderly residing in the IVth & Vth wards of Aikkaranadu Gramapanchayat atErnakulam district, Kerala.

Sample

Elderly residing in IVth & Vth wards of Aikkaranadu Gramapanchayat at Ernakulam district, Kerala, who met the inclusion criteria

Sampling technique

Nonprobability convenience sampling technique

Sample size

200 eldersfrom the selected setting.
The size was estimated using the equation:

$$n = \frac{Z^2_{(1-\frac{\alpha}{2})}\sigma^2}{d^2}$$

Anticipated Standard deviation σ –5.52(from pilot study)
Absolute precision d – 1
Z1-α⁄2 – Statistical table value Z1-α⁄2 -1.96
Required sample size, n = 120

Sample selection criteria

Inclusion criteria

- Elders who were aged from 60 years and above

Exclusion Criteria

- Elders who had a history of clinically proven mental disorders
- Elders who were intellectually disabled

Tools and techniques

Tool 1

Sociodemographic proforma

Gender, age,educational status, occupation, financial status, religion, marital status, type of family,health status, relation with caregiver, duration of stay with caregiver, any history ofbereavement, and any history of resilience/ trauma /abuse

Tool 2

Brief Psychiatric Rating Scale (BPRS)

It is a standardized and a clinician administeredtool consisted of 24 items rated from one to seven. The minimum score is 24 andmaximum score is 168. The score >31 indicates mental illness not significant, scorebetween 31 to 40 indicates mild mental illness, 41 to 52 indicates moderate mental illnessand above 52 indicates severe mental illness.The reliability of the tool was established by using test-retest method and tool was found to be reliable with r = 0.78.

Tool 3

Scale of Positive and Negative Experience (SPANE)

It is a standardized and self-reported tool used consisted of 12 items in which 6 items indicate positive feelingsand remaining 6 items indicates negative feelings which rated from 1 to 5. The score ofnegative feelings is subtracted from the score of positive feelings. The minimum score is-24 and maximum score is 24 for the resultant difference score.The reliability of the tool was established by using test-retest method and tool was found to be reliable with r = 0.89.

Tool 4

Satisfaction with Life Scale

It is a standardized and self-reportedscale consisted of 5 itemsrated from 1 to 7. The minimum score is 5 and maximum score is 35. The score between30 to 35indicates extremely satisfied, 25 to 29 indicates satisfied, 20 to 24 indicatesslightly satisfied, 15 to 19 indicates slightly dissatisfied, 10 to 14 indicates dissatisfied and 5 to 9 indicates extremely dissatisfied. The reliability of the tool was established by using test-retest method and tool was found to be reliable with r= 0 .87.

Ethical clearance

The investigator has considered the following ethical principles while proceeding with the project. This study protocol was approved by the institutional ethics committee of M.O.S.C. Medical College Hospital. Formal administrative permission was obtained from the Aikkaranadu Gramapanchayath and Principal, M.O.S.C. College of Nursing. A letter explaining the purpose of the study was handed over to the subjects and informed written consent was taken before data collection, after ensuring the confidentiality and anonymity pledge of the data.

Pilot study

The pilot study was conducted among 30 subjects from the IV th ward of Aikkaranadu Gramapanchayath to ascertain the feasibility of the study. After obtaining informed consent, the data were collected using the sociodemographic proforma, Brief psychiatric rating scale, Scale of positive and negative experience and Satisfaction with life scale. After the pilot study, it was found to be feasible in terms of time, money, manpower and resources.

Data collection procedure

The study was conducted after obtaining ethical clearance from theinstitutional ethics committee. Formal administrative permission was obtained fromthe Panchayat President of Aikkaranad Gramapanchayat. Total of 200 subjects whofulfilled the inclusion criteria were recruited by convenience sampling technique fromthe IVth and Vth wards of Aikkaranad Gramapanchayat, at Ernakulam district, Kerala.After a brief self-introduction, the subjects were explained about the purpose of thestudy. The subjects were allowed to read the participant information sheet and madeprovision to clarify the doubts. Following this, informed consent was obtained fromthe participants. After that socio demographic data was collected by using sociodemographic proforma. Following this, mental health was assessed by using Briefpsychiatric rating scale, subjective wellbeing was assessed by using the Scale of positive and negative experience and life satisfaction was assessed by using Satisfaction with life scale. Confidentiality and anonymity were ensured during andafter the study. Data were collected from the month of March 2024 to April 2024.Approximate time taken from each study participants was 30 to 45 minutes. Theinvestigator thanked each subject for their cooperation for the study

Plan for data analysis

The data were analysed by using R software. Kolmogorov Smirnov testwas used to check the normality of the data and data followed normality assumptionwith regard to the variable mental health and life satisfaction and data violates the normality with regard to the variable subjective wellbeing. Socio demographic variables and study variables were presented in terms of frequency and percentage. Pearson's andSpearman's correlation test was performed to study the relationship among the mentalhealth, subjective wellbeing and life satisfaction. Chi square / Fisher's exact test was performed todetermine the association of mental health, subjective wellbeing and life satisfactionwith demographic variables. The $p<0.05$ was considered as statistically significant.Data were presented by using tables and figures.

Analysis and Interpretation

Description of sample characteristics among elderly

More than half of the elders were females, accounting for 58% and belongs tothe age group of 60-70 years, that is 57.5%. Among that 45.5% had secondary schooleducation and 31.5% were house wife, 61% had monthly income of 5000 to 10,000per month and 75% were belongs to christians. Also, 75.5% were married,64% were belonged to nuclear family and 81% had health issues. Further, 60% weretaken care by their spouses, 96% were stayed with caregiver for duration of 10 yearsand above, 69.5% had no history of bereavement, and 67.5% did not reported anyhistory of abuse / trauma / resilience. (Table: 1).

Mental health, subjective wellbeing and lifesatisfaction among elderly

Mental health and life satisfaction were presented in terms of frequency and percentage distribution (Figure 1,3). Median and interquartile range was computed as the subjective wellbeing variable not followed normal distribution (Figure 2).

The figure 1 reveals that frequency and percentage distribution of mentalhealth among elderly. In that 92% had no significant mental illness, 5% had reportedas mild mental illness, and only 3% had experienced moderate mental illness. Therewere no reported cases of severe mental illness. Hence it is found that only 8%ofsubjects reported to have poor mental health.

Assess the subjective wellbeing among elderly

The figure 2 reveals that among elderly, more than half of the participants (55%) reported to have subjective wellbeing score above median. Hence it is inferred that the proportion of those who had good subjective wellbeing was high as compared to those who has poor subjective wellbeing.

Assess the life satisfaction among elderly

The figure 3 reveals that among elderly, 38.5% had experienced extremely satisfied, 39.5% were experienced satisfied, 15.5% had experienced slightly satisfied, whereas only 6.5% were dissatisfied. Hence it is inferred that poor life satisfaction relatively uncommon among elderly.

Relationship between mental health, subjective wellbeing and life satisfaction among elderly Relationship between mental health and subjective wellbeing Spearman's correlation coefficient was estimated to determine the relationship between mental health and subjective wellbeing as data violatesnormality.

The observationshowedthere isa significant negative correlation between mental healthand subjective wellbeing (r= -0.145, p=0.040) (Table 2, Figure 4). As per the BPRS scoring systemlower score indicates higher mental health. Hence it is inferred that when mental health increases the subjective wellbeingalso increases.

Relationship between mental health and life satisfaction among elderly

Spearman's rank correlation coefficient is estimated to determine the relationship between mental health and life satisfaction as data followsnormality.

The observation showed that a significant negative correlation (r= -.376, p=0.001) between mental health and life satisfaction (Table 3, Figure 5). As per the BPRS scoring systemlower score indicates higher mental health. Hence it is inferred that when mental health increases the life satisfaction also increases.

Relationship between subjective wellbeing and life satisfaction Spearman's correlation coefficient was estimated to determine the relationship between subjective wellbeing and life satisfaction among elderly, as the data normality.

To determine the association of mental health, subjective wellbeing and life satisfaction with selected demographic variables among elderly

Chi – square and Fisher's exact test were performed to determine the association of mental health, subjective wellbeing and life satisfaction with selected demographic variables like gender, age, educational status, occupation, financial status, religion, marital status, type of family, health status, relation with caregiver, duration of stay with care giver, any history of bereavement and any history of resilience/trauma/abuse.

Association of mental health with selected demographic variables among elderly

The observation showed that a significant association ofgender (0.037), educational status (0.036), occupation (0.001), financial status (0.321), religion (0.006), marital status (0.005),health status (0.006)and history of bereavement (0.020) with mental health.

Association of subjective wellbeing with selected demographic variables among elderly

Chi-square test and Fisher's exact test is performed to determine the relationship of subjective wellbeing with socio demographic variables.The observation showed that a significant association of educational status (0.014), financial status (0.011), and religion (0.002) with subjective wellbeing (Table 6).

Association of life satisfaction with selected socio demographic variables

The observation showed that there was significant association of occupation (0.006), health status (0.000) and duration of stay with care giver(0.038) with life satisfaction.

Table 1: Frequency and percentage distribution of socio demographic variables among elderly (n=200)

Socio demographic variables	Frequency	Percentage (%)
Gender	84	42%
Male	116	58%
Female		
Age	58	29%
60 – 65	57	28.5%
66 – 70	31	15.5%
71 – 75	54	27%
76 and above		
Educational status	3	1.5%
No formal education	76	38%
Primary school	91	45.5%
Secondary school	30	15%
Graduate and above		
Occupation	49	24.5%

Retired	26	13%
Private employee	52	26%
Self-employee	63	31.5%
House wife	10	5%
Unemployed		
Financial status	122	61%
5000 – 10000/month	19	9.5%
10001 – 15,000/month	29	14.5%
15,001 – 20,000/month	30	15%
20,001 and above/month		
Religion		
Hindu	49	24.5%
Christian	150	75%
Muslim	1	0.5%
Marital status		
Unmarried	3	1.5%
Married	151	75.5%
Widow / Widower	45	22.5%
Divorced / Separated	1	0.5%
Type of family	128	64%
Nuclear family	7	3.5%
Joint family	58	29%
Extended family	7	3.5%
Living alone		
Health status	38	19%
Healthy	162	81%
Unhealthy		
Relation with caregiver	120	60%
Spouse	70	35%
Children	2	1%
Others	8	4%
Non		
Duration of stay with caregiver	0	0
10 years and below	192	96%
Above 10 years	8	4%
Non		
Any history of bereavement	61	30.5%
Yes	139	69.5%
No		
Any history of resilience / trauma/ abuse	65	32.5%
Yes	135	67.5%
No		

Table 2: Association of mental healthwith selected socio demographic variables.

Sl NO	Socio demographic variables	Mental Health				Chi - square/ Fisher's exact	P value
		Illness not significant	Mild mental illness	Moderate mental illness	Severe mental illness		
1.	**Gender**					5.232	
	Male	82	0	2	0	(Fisher's	**0.037***
	Female	103	10	3	0	exact)	
2.	**Educational status**						
	No formal education	3	0	0	0	12.593	**0.036***
	Primary school	64	10	2	0	(Fisher's	
	Secondary school	88	0	3	0	exact)	

	Graduate and above	30	0	0	0		
3.	**Occupation**						
	Retired	49	0	0	0	24.491	**0.000***
	Private employee	26	0	0	0	(Fisher's	
	Self-employee	51	1	0	0	exact)	
	House wife	53	8	2	0		
	Unemployed	6	1	3	0		
4.	**Financial status**						
	5000–10000/month	111	9	2	0	6.247	**0.321***
	10001- 5,000/month	19	0	0	0	(Fisher's	
	15001–20000/month	25	1	3	0	exact)	
	>20,001 /month	30	0	0	0		
5.	**Religion**						
	Hindu	40	7	2	0	14.836	**0.006***
	Christian	144	3	3	0	(Fisher's	
	Muslim	1	0	0	0	exact)	
6.	**Marital status**						
	Unmarried	3	0	0	0	19.888	**0.005***
	Married	145	4	2	0	(Fisher's	
	Widow / Widower	36	6	3	0	exact)	
	Divorced / Separated	1	0	0	0		
7.	**Health status**					9.062	**0.006***
	Healthy	31	4	3	0	(Fisher's	
	Unhealthy	154	6	2	0	exact)	
8.	**Any history of bereavement**					6.974	
	Yes	58	1	2	0	(Fisher's	**0.020***
	No	127	9	3	0	exact)	

Significant at p<0.05

Table 3: Association of subjective wellbeing with selected socio demographic variables.

Socio demographic variables	Subjective wellbeing		Chi- square / Fisher's exact Test	p value
	<9	>/=9		
Educational status			9.817	**0.014***
No formal education	2	1	(Fisher's	
Primary school	42	34	exact)	
Secondary school	39	52		
Graduate and above	7	23		
Financial status				
5000 – 10000/month	65	57	10.113	**0.002***
10001- 5,000/month	8	11	(Fisher's	
15001–20000/month	6	23	exact)	
>20,001 /month	11	19		
Religion				
Hindu	31	18	10.113	**0.002***
Christian	58	92	(Fisher's	
Muslim	1	0	exact)	

***Significance at p < 0.05**

Table 4: Association of life satisfaction with selected socio demographic variables.

Sl NO	Socio demographic variables	Life satisfaction				Chi - square/ Fisher's exact	P value
		Extremely Dissatisfied, Slightly Dissatisfied & Dissatisfied	Slightly satisfied	Satisfied	Extremely satisfied		
1.	**Occupation Retired**	**0**	**2**	**26**	**21**		

	Private employee **Self-employee** **House wife** **Unemployed**	**4** **1** **6** **2**	**2** **14** **11** **2**	**8** **21** **20** **4**	**12** **16** **26** **2**	**27.729 (Chi-square)**	**0.006***
2.	**Health status** **Healthy** **Unhealthy**	 **9** **4**	 **3** **28**	 **13** **66**	 **13** **64**	**23.620**	**0.000***
3.	**Duration of stay with care giver** **10 years & below** **Above 10 years** **Non**	 **0** **13** **0**	 **0** **27** **4**	 **0** **76** **3**	 **0** **76** **1**	**08.413 (Chi-square)**	**0.038***

Significant at p<0.05

Figure 1: Pie diagram depicting the percentage distribution of mental health among elderly (n = 200)

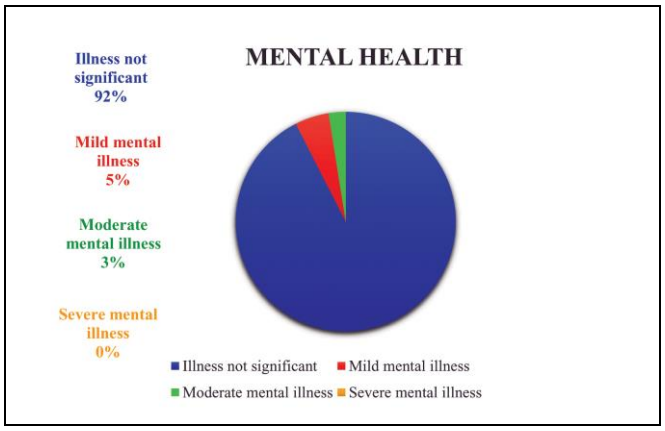


Figure 2: Bar diagram depicting the percentage distribution of subjective wellbeing among elderly (n=200)

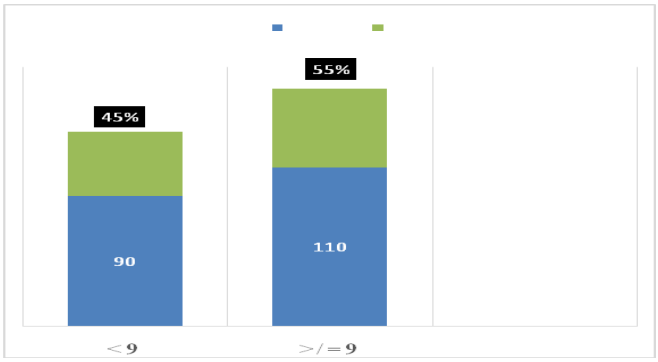


Figure 3: Bar diagram depicting the percentage distribution of life satisfaction among elderly (n=200)

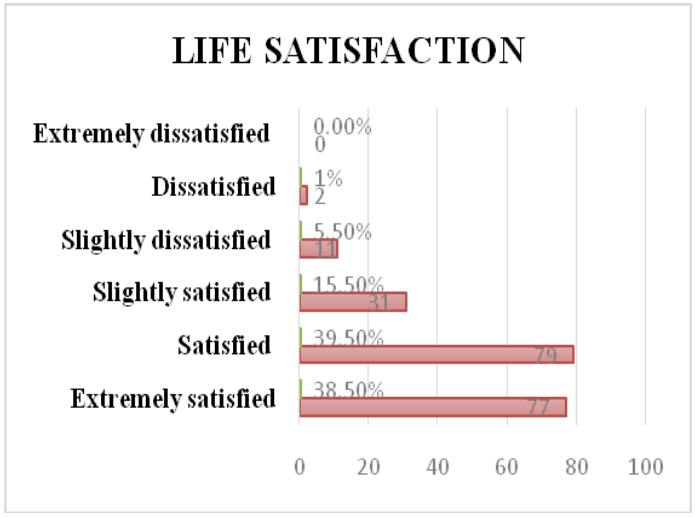


Figure: 4: Scatter plot diagram depicting the relationship between mental health and subjective wellbeing

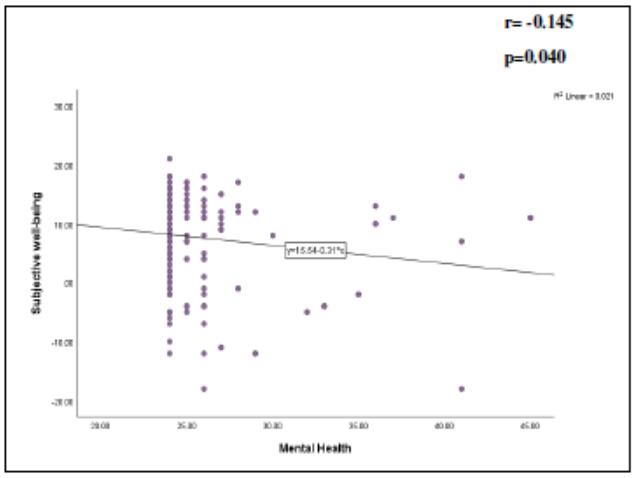
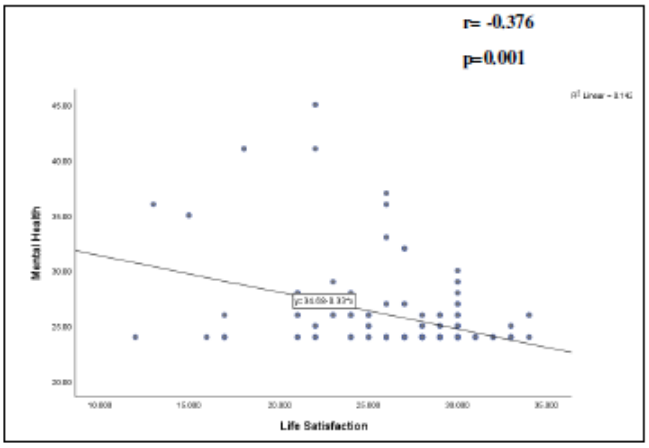
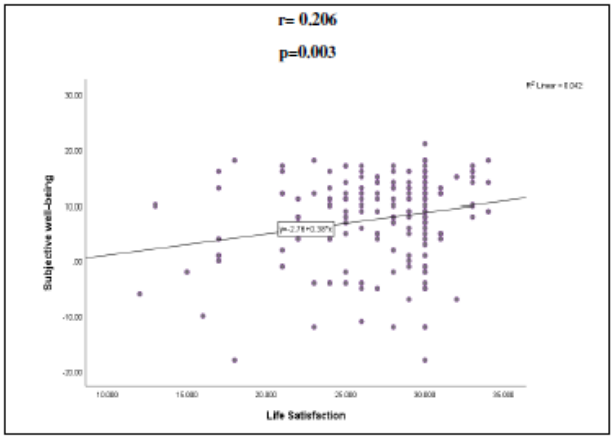


Figure: 5 Scatter plot diagram depicting the relationship between mental health and life satisfaction	Figure: 6Scatter plot diagram depicting the relationship between subjective wellbeing and life satisfaction
	

DISCUSSION

The present study identified that, the mental health was poor among 8% of subjects and 6.5% reported to have poor life satisfaction. The subjective wellbeing of study participants rated on a scale having range of -24 to 24, the median (IQR) was found to be 9 (4, 13) and 55% of elders had subjective wellbeing score above the median. The finding is supported by Jin Y, Zhang YS et al to assess the prevalence and sociodemographic correlates of poor mental health among older adults. The researcher found that the prevalence of poor mental health (9.31%) was lower among older adults. [14] This finding was contradicted by Patel M. et al, to assess the prevalence of psychiatric disorders among older adults. The results were found that the prevalence of severe depression was 17%, severe anxiety was 10.3%, and cognitive impairment was 51.2% among elderly. Also, found that there were more challenges in early identification of mental disorders among elderly. [15] Another cross-sectional survey was conducted by Zewde GT et al on predictors of subjective wellbeing among community residing elders. The researcher found that more than half of the elders (68%) scored low levels of life satisfaction, low positive affect (98.34%), and high level of negative affect (98.32%). [16]

The present study identified that there is a significant negative correlation between poor mental health and subjective wellbeing (r=-0.145, p=0.040).This finding is supported by Lukashenka K et al to assess the determinants of subjective wellbeing found that mental health disorders such as depression and anxiety were strongly correlated with poor subjective wellbeing among men(depression: $p < 0.05$; anxiety: $p < 0.0001$) and women(depression: $p < 0.05$; anxiety's < 0.0001). [17]

The present study identified that there is a statistically significant negative correlation between poor mental health and life satisfaction (r= -0.376, p=0.000). This finding is supported by Dr. Arpita Kackar et al to assess mental health wellbeing and life satisfaction among aged people found that there was a positive correlation between mental health wellbeing and life satisfaction (r=0.864, p=0.05). [18] This finding was contradicted by Choudhary et al to assess the relationship between life satisfaction and physical and mental health of old age people found that there was a significant negative correlation between mental health and life satisfaction (r = -.355, p = 0.01) among elderly. [19]

The present study revealed that, there was a significant positive correlation between subjective wellbeing and life satisfaction (r=0.206, p=0.003) among elderly. This finding is supported by Massey B et al to assess predictive powers of positive affect, negative affect, and feeling of belonging on life satisfaction among older adults found that there was a highly significant positive correlation between positive affect (r = .309, p < .001) and overall life satisfaction, whereas significant negative correlation between negative affect (r = -.333, p < .001) and life satisfaction. [20]

The present study found that there is a significant association ($p<0.05$) of gender, education status, occupation, financial status, religion, marital status, health status, history of bereavement, and duration of stay with care giver with mental health, subjective wellbeing and life satisfaction among elderly. This finding was supported by Momtaz YA et al to assess the sociodemographic predictors on psychological wellbeing of elderly found that age, sex, marital status, and family income ($p<0.001$) were significant determinants of psychological wellbeing. [21] This finding was contradicted by Macia E et al to exploring the life satisfaction among older adults. The researcher found that there was no association between life satisfaction, self-rated health and physical disabilities. [22]

Policy implications

Nursing implications

The present study has significant implications in the field of nursing administration, nursing education, nursing practice, and nursing research.

Nursing administration

- Nurse administrators can collaborate with governing bodies in formulating policies to employ specially qualified nurses in community mental health services to supervise the mental health program.
- Nurse administrators can develop psychoeducation protocols for educating the public regarding the importance of mental health for identifying their problems.

Nursing education

- Nurse educators can suggest the mental health issues among elderly with caregivers regarding early identification, and its management in the nursing curriculum.
- Nurse educators can train the nursing students to use the screening tools to gain adequate knowledge in assessing mental health, subjective wellbeing and life satisfaction among elderly.
- Nurse educators can motivate the student nurses to do flash mobs; role plays in different places to educate the society about prevention and management of mental health problems among elderly.

Nursing practice

- Nurses can identify the areas where the elderly need more help, support and confidence building.
- Nurses can implement clients focused intervention programs to reduce negligence to seek treatment.
- Nurses can play an important role in primary prevention by facilitating early detection and management of mental health issues.
- Nurses can provide mental health programs multimedia programs or face to face settings.
- Nurses can strengthen the support system among elderly with mental health issues

Nursing research

- Nurse researcher can undertake interventional studies to understand the effectiveness of strategies designed for improving the support system.
- The findings of the present study can be considered as a cornerstone for future researchers.

Recommendations

- A qualitative study can be conducted
- Effective intervention programmes can be undertaken to improve the mental health and subjective wellbeing of the elderly.
- A similar study can be conducted in different settings and can be replicated in a large sample
- A longitudinal study of mental health, subjective wellbeing and life satisfaction among elderly can be conducted.

CONCLUSION

Study has its importance in the present scenario of increased percentage of elderly in the population Elderly population demands major part of the health care delivery services in the country as the life expectancy is high.

The result of the study showed that mental health was poor among 8% of subjects, and 6.5% reported to have poor life satisfaction. The subjective wellbeing rated on a scale having a range of -24 to 24, the median (IQR) was found to be 9 (4, 13) and 55% of elders had reported subjective wellbeing score above median. Regarding the correlation, there was a significant negative correlation was found between poor mental health and subjective wellbeing ($r= -0.145$, $p=0.040$). Life satisfaction showed a negative correlation with poor mental health ($r = -0.376$, $p = 0.001$) and a significant positive correlation with subjective wellbeing ($r = 0.206$, $p = 0.003$). Demographic variables such as gender, education status, occupation, financial status, religion, marital status, health status, history of bereavement, and duration of stay with care giver were significantly associated with mental health, subjective wellbeing, and life satisfaction among elderly ($p<0.05$.

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