Journal of Advances and Scholarly Researches in Allied Education
Vol. 21, Issue No. 1, January-2024, ISSN 2230-7540

Factors Associated with Self-Reported Health (SRH) among Nepalese Older Men

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Abstracts - Background: Self-reported health (SRH) is a subjective measurement tool of overall health status. It integrates with the biological, social, mental, and functional aspects of individuals. The aim of this article is to assess the SRH and its correlates among community-living older men from Nepal.

Methods: This study uses the secondary data collected by the Central Department of Population Studies at Tribhuvan University (TU). This study includes community-dwelling male elderly aged 60+ in the Pharping area of Kathmandu. For this study, there were 657 valid responses. A simple and direct question was used "In general, how do you rate your general health?" Its answer was recorded on the 5-point Likert scale "Very Good to Very Bad".

Results: The mean age of the participants was 69.51 years. The majority of respondents (75.9%) live with family members. People who reported poor SRH were 17.0%. Many of them have physical health problems (73.2%) and mental health problems (57.2%). Mental health problems, age of respondents, physical health problems, satisfaction with current living arrangements, walking efficiency, adequate income sources, Insecurity feelings, Income sufficient to fulfill the basic needs, and current working were correlated with SRH. However, linear regression shows that satisfaction with walking efficiency, physical health, and working situation, were significant predictors of SRH.

Conclusion: This analysis suggests that working, walking ability, physical health problems, and financial adequacy are significantly associated with self-rated health. Identifying these variables through self-rated status can support the planning of actions aimed at improving the health of the community living older adult men in Nepal.

Keywords: Nepali older people; Self-Reported Health (SRH); Community living elderly; Health Status Indicators and male elderly.

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BACKGROUND

The demographic shift due to the global population aging, presents unique challenges in ensuring the health and well-being of this growing population. [1] Developing countries often face resource constraints, with limited healthcare infrastructure and personnel. This can lead to underdiagnosis and undertreatment of health issues in older adults. SRH data provides valuable insights into the health needs and experiences of this population, even in the absence of extensive medical records. [2]

SRH was developed by John Ware and Cathy Sherbourne in 1992 to capture how healthy people think they are.[3] SRH refers to an individual's perception of their overall health. SRH goes beyond physical health and captures how well older adults can perform daily activities. This is particularly important in understanding their overall well-being and need for support. [4] This is crucial in settings with limited resources for health surveillance. [5] Research shows that SRH is a strong predictor of mortality and future health outcomes in older adults. [6] This allows for early identification of individuals at risk and prioritizes interventions.

Population aging is taking place rapidly in Nepal. [7, 8] A limited small-scale survey carried out shows that Nepalese older adults are suffering from different types of chronic diseases [9], depression and anxiety [10], Functional limitations [11, 12] and lower quality of life [13]. Assessing the health status of older people clinically is time-consuming, expensive, and due to limited health facilities and manpower difficult as well in the context of Nepal.

SRH is an easy measure of overall health and is useful in identifying persons at risk of a decline in health and the risk of disability in older adults. SRH goes beyond physical health and captures how well older adults can perform their activities. This is particularly important in understanding their overall well-being and need for support.[14] So, the purpose of this article is to assess the SRH and its predictors in the context of Nepal.

METHODS AND METHODOLOGY

This research is a secondary analysis of cross-sectional data from a survey conducted by Tribhuvan University's (TU) Central Department of Population Studies (CDPS) in six Village Development Committees (VDCs) of the Pharping area in Kathmandu, Nepal [15].

For the purpose of this study older men 60 years and older were included. People who reported a clinical diagnosis of Alzheimer's disease or another dementia were excluded. The final sample size was 657 older men 60 years and older.

Self-rated health was measured based on the question: "How do you rate your general health?" and the answers were "very good", "good", "moderate", "not good", and "very bad". For this analysis, the responses of self-rated health were collapsed into "Good" (very good and good), moderate, and "Poor" (not good, and very bad).

Data analysis was performed using the SPSS 26.0 software (SPSS Inc., Chicago, IL, USA). The statistical data analysis used percentage distribution, mean, correlation, and linear regression.

RESULTS

General Characteristics of the Respondents

Table 1 summarizes the general characteristics of the study population. The mean age of the respondents is 69.51 (±7.57) years with an age range of 60-96 years. The majority of the population is married and living together (64.5%), followed by widow/widower (31.7%) and others (3.8%). The average number of surviving children is 3.95 (±1.90).

Table 1: General characteristics of the respondents. N=657.

Variables	Number	Percentage	Age range
Age		69.51 (±7.57)	60-96
Marital Status			
Married	423	64.5	
Widow/widower	208	31.7	
Others	25	3.8	
Surviving children till now		3.95 (±1.90)	0-11
Literacy Status			
Literate	355	54.1	
Illiterate	301	45.9	
Living Arrangement			
Family members	497	75.9	
Spouse	97	14.8	
Alone	31	4.7	
Other	30	4.6	
Satisfaction with living arrangements			
Satisfied very much	22	3.4	
Satisfied	549	83.8	
Okay	45	6.9	
Not Satisfied	33	5.0	
Not satisfied very much	6	0.9	
Working Status			
Yes	466	71.1	
No	189	28.9	
Insecurity Feeling			
Yes	106	33.7	
No	205	66.3	
Income source adequate the to fulfill the basic needs			
Less adequate	218	33.2	
Just adequate	326	49.7	
More than adequate	112	17.1	
Physical Health Problems			
Yes	480	73.2	
No	176	26.8	
Mental Health Problems			
Yes	383	57.2	
No	286	42.8	
Walking efficiency compared to other people of the same age			
Better	348	53.1	
Similar	189	28.9	
Poor	118	18.1	

Most older people live with family members (75.9%), followed by those living with spouses (14.8%), alone (4.7%) and others (4.6%). The majority of the population is satisfied with their living arrangements (87.2%). A higher proportion of the population is working (71.1%) and higher proportion is literate (54.1%). Most people report that their income source is just adequate to fulfill their basic needs (49.7%).

A higher proportion of the population has physical health problems (73.2%). Over half of the population (57.2%) reports having mental health problems. Almost slightly more than half of the population (53.1%) reports having better walking efficiency compared to other people of the same age.

Self-reported health (SRH) of the respondents

The table shows the self-reported health of 657 respondents. It shows 33.2 % reported good health, 49.6 % reported average health, and 17.0 % reported poor health.

Table 2: Self-Reported Health of the respondents, N=657

Health Status	Number	Percentage
Good	219	33.3
Average	326	49.6
Poor	112	17.0
Total	657	100.0

Factors correlated with Self-Reported Health

Table 3: Correlation of variables with SRH, N= 657

Variables	Pearson correlation coefficient
Age	.215(**)
Marital Status	.079*
Total no. of children still alive	-.032
Literacy Status	.089*
Living arrangement	.046
Satisfied with current living arrangements	.137(**)
Currently working	.344(**)
Income sources adequate to fulfil basic needs	-.180(**)
Walking efficiency	.453(**)
Physical health problems	-.370(**)
Mental health problems	-.200(**)
Insecurity Feeling	-.164(**)

**Significant at *.001 level* *Significant at *.005 level*

Table 3 Shows correlations between various factors and Self-Rated Health (SRH) for a sample of 657 people. Correlation indicates the strength and direction of the relationship between two variables. In this case, the variables are factors that might influence how people perceive their own health (SRH).

Age (0.215): There's a weak positive correlation between age and SRH. This means as people get older, they tend to report slightly better health.

Marital Status (0.079): There's a very weak positive correlation between being married and SRH. People who are married tend to report slightly better health.

Literacy Status (0.089): There's a very weak positive correlation between literacy and SRH. People with higher literacy tend to report slightly better health.

Satisfied with living arrangements (0.137): There's a weak positive correlation between satisfaction with living arrangements and SRH. People who are happy with their living situation tend to report slightly better health.

Currently working (0.344): There's a moderate positive correlation between working and SRH. People who are working in house tend to report moderately better health.

Walking efficiency (0.453): There's a moderate positive correlation between walking ability and SRH. People who can walk more efficiently tend to report moderately better health.

Income adequacy (-0.180): There's a weak negative correlation between having enough income to meet basic needs and SRH. This means people who struggle financially tend to report slightly worse health.

Physical health problems (-0.370): There's a moderate negative correlation between physical health problems and SRH. People with more physical health problems tend to report moderately worse health.

Mental health problems (-0.200): There's a weak negative correlation between mental health problems and SRH. People with more mental health problems tend to report slightly worse health.

Insecurity feeling (-0.164): There's a weak negative correlation between feelings of insecurity and SRH. People who feel more insecure tend to report slightly worse health.

Logistic Correlation of Self-Reported Health

Table 4: Linear regression showing the significant variables of SRH

Variables	Unstandardized	Coefficients	Standardized Coefficients	t	Sig.
	B	Standard error	Beta		
(Constant)	702	.693		1.012	.312
Age of respondent	.702	.005	.022	.420	.675
Satisfied with current living arrangements	.002	.048	.095	1.853	.065
Currently working	.090	.077	.216	4.090	.000
Income sources adequate to fulfil basic needs	.314	.061	-.107	-2.070	.039
Walking efficiency	-.127	.044	.294	5.720	.000
Physical health problem now	.252	.086	-.220	-4.399	.000
Mental health problem	-.380	.583	.060	1.259	.209
Insecurity Feeling	.005	.074	.004	.070	.944
Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate	
	.561[a]	.314	.296	.575	

Predictors: (Constant), Insecurity feeling, walking efficiency, satisfied with current living arrangements, Physical health problem now, Age of respondent, currently working

The table 4 shows the unstandardized coefficients (B), standardized coefficients (Beta), standard errors, t-statistics, and significance (Sig.) values for each variable in the model.

Currently working (Sig. = 0.000): This variable has a positive Beta coefficient (0.216) and a significant p-value (less than 0.05), indicating a positive association between working and SRH. People who are employed tend to report better health according to the model.

Walking efficiency (Sig. = 0.000): This variable also has a positive Beta coefficient (0.294) and a significant p-value, suggesting a positive relationship between walking ability and SRH. People who can walk more efficiently tend to report better health.

Physical health problem now (Sig. = 0.000): This variable has a negative Beta coefficient (-0.220) and a significant p-value, indicating a negative association between physical health problems and SRH. People with more physical health problems tend to report worse health as expected.

Income sources adequate (Sig. = 0.039): This variable has a negative Beta coefficient (-0.107) and a significant p-value, suggesting that having enough income to meet basic needs is associated with better SRH. People who struggle financially tend to report slightly worse health.

Overall, this analysis suggests that working, walking ability, physical health problems, and financial adequacy are significantly associated with self-rated health. People who are employed,

have better walking ability, fewer physical health problems, and have sufficient income to meet their needs tend to report better health according to this model.

DISCUSSIONS

Nepal's growing elderly population, like many countries around the world, faces challenges related to aging and health. Researchers have focused on self-reported health (SRH) as a key indicator for understanding the well-being of older adults. This study examined factors affecting SRH in community-dwelling older men in Nepal.

This study found that over a third (33.3%) of participants reported good health, while nearly half (49.6%) reported average health and 17% reported poor health. The prevalence of poor health (17%) aligns somewhat with a Korean study [16]. However, another Korean study found a higher percentage (44.2%) reporting poor health [17] . The latest study shows the prevalence of poor self- rated health (SRH) among Malaysia's older population was found to be at 32.6%. [18] These variations across countries likely stem from differences in study design and participant demographics, such as age, gender, and ethnicity. Additionally, cultural factors, geographic location, socioeconomic status, and political climate can influence how people perceive their health, potentially contributing to the observed variations in self-reported health prevalence.

This study found a positive association between self-reported walking efficiency and overall health perception in older adults. In other words, older adults who reported being able to walk efficiently also tended to report better health. This link between walking ability and health perception is likely because daily activities (bathing, dressing, eating) become more difficult as mobility declines. This decline in functional independence can lead to feelings of helplessness and negatively impact a person's overall perception of their health [2, 19] This decline in functional independence can lead to feelings of helplessness and negatively impact a person's overall perception of their health [2,16]. Studies from various countries have supported this connection between limitations in daily activities and lower self-rated health among older adults [4, 17, 18].

This study aligns with previous research [18] demonstrating that older adults with poorer physical and mental health tend to report lower SRH. Similar findings suggest that depression, anxiety, and loneliness can significantly impact a person's overall health perception in later life [19, 20, 21].

This complex interplay between mental and physical health emphasizes the importance of addressing both aspects for holistic well-being in older adults.

This study aligns with previous research [20] demonstrating that older adults with poorer physical and mental health tend to report lower SRH. SRH. Similar findings suggest that depression, anxiety, and loneliness can significantly impact a person's overall health perception in later life [21, 22]. This complex interplay between mental and physical health emphasizes the importance of addressing both aspects for holistic well-being in older adults [23].

Insecurity, particularly financial insecurity, appears to be linked to poorer self-reported health (SRH) in older adults. This aligns with existing research suggesting a connection between limited financial resources and poorer health perception [18, 19]. Conversely, financial security may contribute to better overall health. Our study's findings support this notion, as participants with sufficient financial resources reported better health. Similar results were found in a study conducted in India [20]. Furthermore, studies have shown that economic dependence in older adults increases the risk of experiencing poor SRH [21, 22].

Insecurity, particularly financial insecurity, appears to be linked to poorer self-reported health (SRH) in older adults. This aligns with existing research suggesting a connection between limited financial resources and poorer health perception [19, 22].]. Conversely, financial security may contribute to better overall health. Our study's findings support this notion, as participants with sufficient financial resources reported better health. Similar results were found in a study conducted in India [21].].

Furthermore, studies have shown that economic dependence in older adults increases the risk of experiencing poor SRH [24, 25].

Interestingly, this study found that older adults who reported currently working, particularly in voluntary positions, tended to have better self-rated health (SRH). This suggests that staying active and engaged in work, even volunteer work, may benefit older adults' overall health perception. These findings are consistent with research from other countries, highlighting a positive association between working status and SRH [21, 22]. Engagement in voluntary work can significantly indicate healthy and active aging, ultimately contributing to a better quality of life [26, 27].

CONCLUSION

This study shows 17.0 % older people reported their SRH poor, 49.6% reported average and 33.3% reported good. Factors associated with SRH were currently working, physical health, satisfaction with living arrangements, adequate income, and self-perceived walking efficiency compared to other people of the same age. Local communities and stakeholders, including local government, need to focus on initiatives for healthy aging environments.

ACKNOWLEDGMENTS

The authors would like to thank the Central Department of Population Studies, TU, Kirtipur, Nepal for providing permission to use the data for this study.

COMPETING INTERESTS

The authors declare that they have no competing interests. There are no financial and/or personal relationships between the authors and others that might bias the work.

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