



# Nutritional Status and Dietary Practices of Elderly People Living in Community Dwelling and Old Age Home in Tanahun

<sup>1</sup>Dijson Dhakal, <sup>1\*</sup>Dipendra Kumar Yadav & <sup>1</sup>Rajesh Kumar Yadav  
School of Health and Allied Sciences, Pokhara University, Pokhara, Nepal  
\*dipendrayadavph@gmail.com

## Background

Malnutrition is one major problem among elderly citizen which occurs where there is gap between nutritional intake and nutritional needs. Dietary practice in geriatric mainly related to number of meal, food and fluid intake and their types such as energy giving, body building and protective foods.<sup>1</sup> Good nutrition plays an important role in making healthy and wellbeing health and reduced, delaying risk of developing diseases.<sup>2</sup> Worldwide there is high prevalence of malnutrition in institutionalization elderly compared with the free living elderly.<sup>3</sup>

## Objective

Study aims was to assess the nutritional status and dietary practices of elderly living in old age home and community dwelling.

## Methods

A cross sectional study was carried out among the elderly population whose age was 60 years and above in Tanahun district of Nepal. Simple random sampling was followed and selected desired number of participants. Equal number of participants were recruited from both setting; 101 participants were chosen from six old age homes and 101 number of participants were selected from three wards of Myagde rural municipality (out of six rural municipalities and four municipalities) of Tanahun district.

Ethical approval was taken from IRC, Pokhara University. Written consent was taken from all participants. Data were collected by using semi-structure questionnaires through interview. Nutritional status was measured by using MNA standard tool and along with height, weight and calf circumference measurements tools then calculated the MNA scores.

In this study nutritional status were categorized in three groups; 0-7 scores considered as malnourished, 8-11 scores were considered at risk of malnutrition and 12-14 scores were considered as normal nutritional status.

Dietary practices were identified by using weekly food consumption questionnaire and 24-hour dietary recall questionnaires. Study was conducted from July to December, 2018. Data were entered in Epi-Data and analysed was done by using SPSS 20.

## Results

Nutritional status among both group old age home and community dwelling that, 50% were at risk of malnutrition, 11.9% were malnourished and 38.1% were at normal nutritional status. In comparison, high prevalence that 55.4% were at risk of malnutrition in old age home while 44.6% were at risk of malnutrition in community dwelling. Majority of participants 17.8% were malnourished in old age home while 5.9% were malnourished in community dwelling.

Table 1 Nutritional status of elderly people living in old age home and community dwelling

Living Settings	Nutritional Status			Total
	at risk of malnutrition	malnourished	normal nutrition	
Old age home	56 (55.4%)	18 (17.8%)	27 (26.7%)	101 (100%)
Community dwelling	45 (44.6%)	6 (5.9%)	50 (49.5%)	101 (100%)
<b>Total</b>	<b>101 (50%)</b>	<b>24 (11.9%)</b>	<b>77 (38.1%)</b>	<b>202 (100%)</b>

In the dietary practices of last week, study shows that in old age home 17.8%, 1%, 88.1%, 99%, 86.1% consumed meat, egg, pulses, fruits and milk and milk products respectively where, no one consumed fish and 100% consumed vegetables in old age home. Likewise, on community dwelling 23.7%, 2.9%, 12.8%, 89.1%, 95.1%, 82.1% consumed meat, fish, egg, pulses, fruits and milk and milk products respectively where 100% consumed vegetables in community dwelling. Similarly, dietary practices were not associated with nutritional status.

Table 2 Weekly dietary practices

Characteristics	Frequency (%)	
	Old age home n = (101)	Community dwelling n = (101)
<b>Meat consumption per week</b>	<b>n = (18)</b>	<b>n = (24)</b>
< 3 days	16 (88.9%)	19 (79.1%)
≥ 3 days	2 (11.1%)	5 (20.9%)
<b>Fish consumption per week</b>	<b>n = (0)</b>	<b>n = (2)</b>
< 3 days		2 (100%)
≥ 3 days		
<b>Egg consumption per week</b>	<b>n = (1)</b>	<b>n = (13)</b>
< 3 days	1 (100%)	10 (76.9%)
≥ 3 days		3 (23.1%)
<b>Vegetables consumption per week</b>	<b>n = (101)</b>	<b>n = (101)</b>
< 3 days	1 (1%)	5 (5%)
≥ 3 days	100 (99%)	96 (95%)
<b>Pulses consumption per week</b>	<b>n = (89)</b>	<b>n = (90)</b>
< 3 days	19 (21.3%)	25 (27.8%)
≥ 3 days	70 (78.7%)	65 (72.2%)
<b>Fruits consumption per week</b>	<b>n = (100)</b>	<b>n = (96)</b>
< 3 days	14 (14%)	30 (31.2%)
≥ 3 days	86 (86%)	66 (68.8%)

As in socio-demographic living setting, age and education were significantly associated to nutritional status of elderly people.

## Results

Table 3 Association between socio demographic variables and nutritional status

Variables	Nutritional Status			Chi Square	P-value
	At Risk	Malnourished	Normal		
<b>Living Setting</b>					
Old age home	56 (55.4%)	18 (17.9%)	27 (26.7%)	<b>14.068</b>	<b>0.001*</b>
Community Setting	45 (44.5%)	6 (6%)	50 (49.5%)		
<b>Age</b>					
<70 years	48 (49.4%)	3 (3.2%)	46 (47.4%)	<b>16.378</b>	<b>0.001*</b>
≥70 years	53 (50.5%)	21 (20%)	31 (29.5%)		
<b>Ethnicity</b>					
Lower cast	26 (65%)	3 (7.5%)	11 (27.5%)	<b>4.223 **</b>	<b>0.104</b>
Upper cast	75 (46.2%)	21 (13%)	66 (40.8%)		
<b>Education</b>					
Educated	50 (43.9%)	4 (3.5%)	60 (52.6%)	<b>31.871</b>	<b>0.001*</b>
Uneducated	51 (58%)	20 (22.7%)	17 (19.3%)		

## Conclusions

Elderly people living in old age home were more malnourished than the people living in community dwelling. Overall half of them were at risk of malnutrition in both settings due to poor dietary practices among elderly people. Participants living in old age home and community setting majority of them were vegetarian, where there was very less consumption of meat, fish and egg. There was statistically significant association between living setting and nutritional status. Similarly, this study reveals the significant association between age increased and malnutrition condition. Nutritional education and counselling should be organised by management committee of old age homes for the better nutrition of geriatric people.

## References

1. Yadav N, Ravindra R, Sharma S, Singh A, Mishra M, Dubey J, et al. Dietary habits and nutritional status of elderly living in urban areas of Allahabad district. 2012;43:81-6.
2. Jones J, Duffy DM, Coull Y, Wilkinson DH. Older people living in community -Nutritional needs, barriers and interventions: A literature review. 2009 0950 2254.
3. Rathnayake KM, Wimalathunga M, Weech M, Jackson KG, Lovegrove JA. High prevalence of undernutrition and low dietary diversity in institutionalised elderly living in Sri Lanka. Public health nutrition. 2015;18 (15):2874-80.