Section: Community Medicine

Original Research Article

ASSESSMENT OF SOCIO-CLINICAL PROFILE, NUTRITIONAL STATUS AND SOCIAL SUPPORT OF THE ELDERLY IN NORTHERN INDIA

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ABSTRACT

Background: Population ageing along with increasing share of older persons is becoming one of the most significant social transformation of the twenty first century. **Objective:** To explore the health and nutritional profile and social support delivery of the geriatrics.

Materials and Methods: An epidemiological observation study was carried out in 300 elderly participants dwelling in community and at old age homes in district Lucknow.

Results: The frequency of single or multiple morbidity in total elderly revealed to be highest in 98%, one-fifth of them still working, nearly half of them had their nourishment in risk category and overall perceived social support was low in only 20% geriatrics.

Conclusion: The morbidity burden is enhanced in northern region geriatrics of our country, nonetheless, they are deprived of needed social support care. Hence, an optimum social support at family level, friends besides government provision of social security measures for their healthy, solaceful life is an essential requirement of aged people.

Keywords: geriatrics, nutritional, social support, morbidity

INTRODUCTION

The WHO has stated that ageing populations will present new challenges to health care. The health of the elderly will be an important issue defining the health status of a population.[1] As the number of elderly increases, so too will their health needs. Multimorbidity associated with increasing age is common and is found to be more frequent in resource poor countries.[2] It is therefore required that health policy addresses this subgroup of the population as well.1 In India, the elderly aged 60 years and above constitutes 7.7% of the total population of 1.20 billion and this number is increasing.[3] With national health policy focusing on maternal health, child health and communicable diseases,the health status of the elderly has not been given due consideration.[4]

Ageing is a complex process with changes in physiological, psychological and social factors that may impact nutritional status.[5] High prevalence of malnutrition among elders in poor socioeconomic status was reported in some earlier studies.[6,7] This could be attributed to the fact that socioeconomic conditions influence dietary choices and eating patterns thereby affecting the nutritional status. 8 Malnutrition is a multifactorial condition associated with sociodemographic, somatic and functional status. Hence, it is recommended that the treatment of malnutrition should be multifactorial and multidisciplinary. Further research is needed to develop appropriate guidelines for geriatric screening and interventional programs among geriatric population. Different studies have also suggested that malnutrition is an important predictor of morbidity and mortality in the elderly.[9,10] Against the above scenario, we planned to conduct epidemiological survey in lucknow district of Uttar

Pradesh so as to assess the nutritional status, social support among elderly dwellers within family set up and old age orphanages.

Objectives

1. To determine the socio-economic and clinical profile of family and OAH geriatrics.
2. To assess their nutritional, perceived social support along with their awareness about elderly social welfare schemes.
3. To delineate the reasons for their residing in OAHs.

MATERIALS AND METHODS

Study design: Analytical Cross-sectional study

Study Population: Elderly (age >= 60 years) residing in lucknow city registered at old age homes and in the family set up in the rural field practice area of department of community medicine, KGMU.

Study period: The study was conducted from October 2021 to September 2022.

Sample size: We had taken 190 elderly living in family set up and 110 from OAHs setting with total estimated sample size was 300 elderly which is calculated by utilizing 2 proportion of good quality of life of elderly people in old age orphanage as 56.2% and in family set up as 72.5%,[11] assuming ratio of study participants as 3:2 respectively by using software G power version 3.1.9.2 , using 2 sided 95% confidence interval and 80% power of the study.

Inclusion Criteria

a) Elderly age >=60 years
b) Living in old age homes and in family for >=6 months
c) Participants who had given consent
d) Participants were able to understand local language or English

Exclusion Criteria

a) Participants who were uncooperative
b) Participants who were bedridden or severely ill
c) Unable to communicate

Sampling Technique: The family group elderly (n=190) divided as n=97 and n=93 enrolled from the total number of available households in each of the selected subcentres, namely Gauri and Natkur which is n=1456 and n=1394 respectively using systematic random sampling technique (samping interval=15). One elderly was selected for interview from a household in these subcentres and adjacent was considered in the absence of elderly in the household. The 2nd group of elderly (n=110) was taken from registered OAHs obtained from Bal Kalyan Vibhag, Moti Mahal Lucknow such as samarpan OAH (26 out of 37), sikshonayan santhan OAH (42 out of67), sevarth vridhaashram (19 out of 27), sri ram OAH (5 out of 14), snehdhara OAH (2 out of 5) and chabbi shanty dham OAH (16 out of 38).

Methodology: The information was elicited from the 2 groups of elderly on a predesigned structured pretested questionnaire by pilot testing consisting of sociodemographic variables like age, gender, religion, marital status, number of children, education, social class, nutritional staus, social support using multidimensional scale of perceived social support (MSPSS), a short instrument having 12 questions designed to measure an individual's perception of support from 3 sources, namely family, friends and a significant other. The mean subscale score is calculated for significant other by summing across items 1,2, 5 and 10 and then divide by 4, family subscale by summing across items 3,4,8 and 11 and then divide by 4, friends subscale by summing across items 6,7,9 and 12 and then divide by 4. A mean subscale score ranging from 1 to 2.9 could be considered low support, a score of 3 to 5 as moderate support and from 5.1 to 7 as high support. But Greenspace categorized mean score as 12-35 (low perceived support), 36-60 (medium support) and 61-84 (high support). The nutritional status was assessed with MNA (mini- nutritional assessment), a validated questionnaire for older individuals comprises comprises 18 questions clustered in four sections:- anthropometric assessment (weight, height and weight loss), general assessment (living situation, medicine use and mobility), dietary assessment (number of meals, food and fluid intake and autonomy of feeding) and subjective assessment (self perception of health and nutritional status). A maximum score of 30 can be obtained and a score below 17 indicates malnutrition, a score of 17-23.5 indicates a risk of malnutrition and a score 24 or higher indicates a satisfactory nutritional status.

Data Analysis

Descriptive statistics such as mean, standard deviation (SD) for continuous variables and frequency percentage for categorical variables were determined using SPSS software version 18 (IBM Statistics).

Ethical Approval: It has been taken before the start of study.

RESULTS

Table 1: Distribution of elderly based on their clinical profile

Clinical parameters	Family set up	OAH	Total
	Mean (SD)	Mean(SD)	Mean (SD)
Mean weight (kg)	53.5 (14.6)	54 (11.5)	53.7 (13.5)
Mean height (cm)	154 (9)	156 (10)	155 (9)
BMI (kg/mt^2)	**Number (%)**	**N (%)**	**N (%)**
<18.5 (underweight)	46 (24.2%)	15 (13.6%)	61 (20.3%)
18.5-22.9 (normal)	64 (33.7%)	52 (47.3%)	116 (38.7%)

23- 24.9 (overweight)	31 (16.3%)	21 (19.1%)	52 (17.3%)
25 and above (obese)	49 (25.8%)	22 (20%)	71 (23.7%)
Mean SBP (mm Hg)	**Family set up**	**OAHs**	**Total**
	Mean (SD)	**Mean (SD)**	**Mean (SD)**
	135 (19)	144 (22)	138 (21)
Mean DBP (mm Hg)	82 (12)	82 (13)	82 (12)
Mean RBS (mg/dl)	144 (63)	140 ± 53	143 (60)
	Family set up	**OAH**	**Total**
Frequency of comorbidity*	**n (%)**	**n (%)**	**n (%)**
No disease	4 (2.1%)	2 (1.8%)	6 (2%)
1 disease	63 (33.2%)	22 (20%)	85 (28.3%)
>1 disease	123 (64.7%)	86 (78.2%)	209 (69.7%)
Type of morbidity	**Family set up n (%)**	**OAH n (%)**	**Total n (%)**
Eye related**	178 (93.7%)	105 (95.5%)	283 (94.3%)
Eye related #	53 (27.9%)	43 (30.9%)	87 (29%)
Ear related	3 (1.6%)	16 (14.5%)	19 (6.3%)
Dental	16 (8.4%)	3 (2.7%)	19 (6.3%)
Musculoskeletal	55 (28.9%)	26 (23.6%)	81 (27%)
Hypertension	62 (32.6%)	44 (40%)	106 (35.3%)
Diabetes mellitus	43 (22.6%)	11 (10%)	54 (18%)
Respiratory	16 (8.4%)	10 (9.1%)	26 (8.7%)
CVS	8 (4.2%)	4 (3.6%)	12 (4%)
GIT	11 (5.8%)	6 (5.5%)	17 (5.7%)
Neuropsychiatry	5 (2.6%)	17 (15.5%)	22 (7.3%)

***Multiple response**
****include refractive error as a disease**
 # excludes refractive error as a disease

In family set up, the mean weight and mean height of elderly were 53.5±14.6kg and 154±9cm respectively while in OAHs, the mean weight and mean height of elderly was 54 ±11.5 kg and 156± 10cm respectively. Among elderly in family set up, the 33.7% had normal BMI followed by obese (25.8%) and underweight (24.2%) while in OAHs, 47.3% elderly had normal BMI followed by obese (20%) and overweight (19.1%). In family set up, the mean SBP and DBP of elderly were 135± 19 mm Hg and 82 ± 12 mm Hg respectively while in OAHs, the mean SBP and DBP of elderly were 144 ± 22 mm Hg and 82 ± 13 mm Hg respectively. Among the elderly living in family set up, the most frequent morbidity was eye related morbidity (93.7%) followed by hypertension (32.6%) while 28.9% elderly had musculoskeletal morbidity. In OAH also, the most frequent morbidity was eye related morbidity (95.5%) followed by hypertension (40%) while 23.6% elderly had musculoskeletal morbidity.

Table 2: Socio-economic distribution of elderly

Variables	**Family set up**	**OAH**	**Total**
Working in past for cash	**n (%)**	**n (%)**	**n (%)**
Yes	146 (76.8%)	81 (73.6%)	227 (75.7%)
No	44 (23.2%)	29 (26.4%)	73 (24.3%)
Type of past occupation	**n (%)**	**n (%)**	**n (%)**
Govt service	28 (19.2%)	16 (19.7%)	44 (19.4%)
Pvt service	31 (21.2%)	35 (43.3%)	66 (29.1%)
Business	11 (7.5%)	15 (18.5%)	26 (11.4%)
Agriculture	63 (43.2%)	9 (11.1%)	72 (31.7%)
Daily wages	13 (8.9%)	6 (7.4%)	19 (8.4%)
Total	146	81	227
Currently working for cash	**n (%)**	**n (%)**	**n (%)**
Yes	59 (31.1%)	2 (1.8%)	61 (20.3%)
No	131 (68.9%)	108 (98.2%)	239 (79.7%)
Any current source of income	**n (%)**	**n (%)**	**n (%)**
Yes	188 (98.9%)	80 (72.7%)	268 (89.3%)
No	2 (1.1%)	30 (27.3%)	32 (10.7%)
Type of current source of income (n=268)	**n (%)**	**n (%)**	**n (%)**
Direct (active)	20 (10.6%)	1 (1.3%)	21 (7.8%)
Indirect (passive)	129 (68.7%)	77 (96.2%)	206 (76.8%)
Both	39 (20.7%)	2 (2.5%)	41 (15.4%)
Current mean income per month mean (SD) (n=268)	**21505 (40065) (n=188)**	**8257 (15949) (n=80)**	**16647 (33886)**
Financial crisis (<3000 per month)	**n (%)**	**n (%)**	**n (%)**
Yes	121 (63.7%)	79 (71.8%)	200 (66.7%)
No	69 (36.3%)	31 (28.2%)	100 (33.3%)
Perception about sufficiency of current income for	**n (%)**	**n (%)**	**n (%)**

livelihood			
Yes	95 (50%)	40 (36.4%)	135 (45%)
No	95 (50%)	70 (63.6%)	165 (55%)
Socio-economic status*	**n (%)**	**n (%)**	**n (%)**
Upper	35 (18.4%)	26 (23.6%)	61 (20.3%)
Upper middle	13 (6.8%)	4 (3.6%)	17 (5.7%)
Middle	31 (16.3%)	1 (0.9%)	32 (10.7%)
Lower middle	59 (31.1%)	3 (2.7%)	62 (20.7%)
Lower	52 (27.4%)	76 (69.1%)	128 (42.7%)

***Modified BG Prasad updated 2022**

Among elderly dwelling in family set up, 76.8% working in past than in OAH 73.6%.In family set up, 33.2% had agriculture, 31.8% had pvt service as past occupation. In family set up, 31.1% elderly has been currently working while in OAHs, only 1.85 are currently working and 98.2% are not working currently. Among elderly in family set up, 98.9% have current source of income, out of which majority (68.7%) have indirect income/passive income followed by 20.75 as both (direct and indirect income) while elderly living in OAH, 72.7% had current source of income, out of which majority (96.2%) had indirect income/passive income. Elderly dwelling in family set up had mean income of rs 21500 while elderly reside in OAH had mean income of about rs 8250. Perceptions about sufficiency of current income in family set up and in OAHs, elderly were 50% and 36.4% respectively. In family set up, a maximum of 31.1% elderly were in class IV of SES and while in OAHs, maximum of 69.1% were belonged to class V.

Table 3: Nutritional status of the 2 groups of elderly

Nutritional status*	**Family set up n (%)**	**OAH n (%)**	**Total n (%)**
Normal	34 (17.9%)	26 (23.6%)	60 (20%)
At risk of malnutrition	108 (56.8%)	63 (57.3%)	171 (57%)
Malnourished	48 (25.3%)	21 (19.1%)	69 (23%)
Associated factors	**Family set up n (%)**	**OAH n (%)**	**Total n (%)**
Able to do daily activity independently?	**n (%)**	**n (%)**	**n (%)**
Yes	26 (13.7%)	28 (25.5%)	54 (18%)
No	164 (86.3%)	82 (74.5%)	246 (82%)
Protein intake**	**n (%)**	**n (%)**	**n (%)**
If 0 or 1 product (Yes)	9 (4.7%)	3 (2.7%)	12 (4%)
If 2 product (Yes)	131 (68.9%)	100 (90.9%)	231 (77%)
If 3 product (Yes)	50 (26.3%)	7 (6.4%)	57 (19%)
Consumes two or more servings of fruit or vegetables per day?			
Yes	110 (57.9%)	103 (93.6%)	213 (71%)
No	80 (42.1%)	7 (6.4%)	87 (29%)
How much fluid (water, juice, coffee, tea, milk etc) is consumed per day?			
< 3 cups	5 (2.6%)	9 (8.2%)	14 (4.7%)
3 to 5 cups	34 (17.9%)	15 (13.6%)	49 (16.3%)
>5 cups	151 (79.5%)	86 (78.2%)	237 (79%)
Mode of feeding	**n (%)**	**n (%)**	**n (%)**
Unable to eat without assistance	2 (1.1%)	2 (1.8%)	4 (1.3%)
Self-fed with some difficulty	7 (3.7%)	15 (13.6%)	22 (7.3%)
Self-fed without any problem	181 (95.3%)	93 (84.5%)	274 (91.3%)
Self view of nutritional status	**n (%)**	**n (%)**	**n (%)**
Views self as being malnourished	121 (63.7%)	46 (41.8%)	167 (55.7%)
Is uncertain of nutritional state	21 (11.1%)	13 (11.8%)	34 (11.3%)
Views self as having no nutritional problem	48 (25.3%)	51 (46.4%)	99 (33%)
In comparison with other people of the same age, how does the patient consider his/her health status?			
Not as good	75 (39.5%)	42 (38.2%)	117 (39%)
Does not know	47 (24.7%)	14 (12.7%)	61 (20.3%)
As good	60 (31.6%)	43 (39.1%)	103 (34.3%)
Better	8 (4.2%)	11 (10%)	19 (6.3%)
Mid-arm circumference (MUAC) in cm	**n (%)**	**n (%)**	**n (%)**
MAC < 21	39 (20.5%)	15 (13.6%)	54 (18%)
MAC 21 to 22	39 (20.5%)	18 (16.4%)	57 (19%)
MAC > 22	112 (58.9%)	77 (70%)	189 (63%)
Calf circumference (CC) in cm	**n (%)**	**n (%)**	**n (%)**
CC < 31	93 (48.9%)	41 (37.3%)	134 (44.7%)
CC 31 or greater	97 (51.1%)	69 (62.7%)	166 (55.3%)

***Mini nutritional Assessment (MNA) tool**

**** Selected consumption markers for protein intake include at least one serving of dairy products (milk, cheese, yoghurt) per day, two or more serving of legumes or eggs per week, meat/fish or poultry every day**

Almost similar proportion of elderly were at risk of malnutrition being 56% in both the settings. The liquid fluid intake (water, juice, coffee, tea, milk) was same (79%) in the 2 groups of elderly whereas solid food intake of fruits or vegetables per day is comparatively higher in OAHs (93.6%) versus family set up (58%). The good frequency of older adults as nearly 8 out 10 of them in both the living status were independent in self-feeding and performing their routine tasks. The greater percentage of geriatrics were found to be comparatively malnourished on the basis of their self view in 63.7% family set up versus 41.8% OAH. Regarding their anthropometric measurements, the MAC greater than 22cm is increased by 11.1% in OAH in comparison to family set up (58.9%) and chest circumference greater or equal to 31cm is also raised in OAH (62.7%) versus 51% in family set up.

Table 4: Elderly perceived social support along with their awareness about social welfare schemes

Perceived social support*	**Family set up n (%)**	**OAH n (%)**	**Total n (%)**
From family	**n (%)**	**n (%)**	**n (%)**
Low	22 (11.6%)	52 (47.3%)	74 (24.7%)
Moderate	93 (48.9%)	30 (27.3%)	123 (41%)
High	75 (39.5%)	28 (25.5%)	103 (34.3%)
From friends	**n (%)**	**n (%)**	**n (%)**
Low	19 (10%)	36 (32.7%)	55 (18.3%)
Moderate	135 (71.1%)	38 (34.5%)	173 (57.7%)
High	36 (18.9%)	36 (32.7%)	72 (24%)
From significant other (spouse/close person)	**n (%)**	**n (%)**	**n (%)**
Low	45 (23.7%)	65 (59.1%)	110 (36.7%)
Moderate	33 (17.4%)	25 (22.7%)	58 (19.3%)
High	112 (58.9%)	20 (18.2%)	132 (44%)
Overall	n (%)	n (%)	n (%)
Low	18 (9.5%)	41 (37.3%)	59 (19.7%)
Moderate	103 (54.2%)	46 (41.8%)	149 (49.7%)
High	69 (36.3%)	23 (20.9%)	92 (30.7%)
Awareness about existing govt welfare schemes for older persons	**Family setup n (%)**	**OAH n (%)**	**Total n (%)**
Yes	187 (98.4%)	105 (95.5%)	292 (97.3%)
No	3 (1.6%)	5 (4.5%)	8 (2.7%)
Currently availing any scheme benefit	**Family set up n (%)**	**OAH n (%)**	**Total n (%)**
Yes	40 (21.1%)	26 (23.6%)	66 (22%)
No	150 (78.9%)	84 (76.4%)	234 (78%)
Availing which schemes	**Family set up n (%)**	**OAH n (%)**	**Total n (%)**
National old age pension	20 (50%)	18 (69.2%)	38 (57.6%)
Widow pension	13 (32.5%)	8 (30.8%)	21 (31.8%)
PM kisan samman nidhi	7 (17.5%)	0 (0%)	7 (10.6%)
Reasons for not availing benefits	**Family set up n =155(%)**	**OAHs n =85(%)**	**Total n=240 (%)**
No need due to sufficient income	8 (5.2%)	4 (4.7%)	12 (5%)
Not eligible/not applicable	48 (31%)	20 (23.5%)	68 (28.3%)
Not having document	9 (5.8%)	33 (38.8%)	42 (17.5%)
Not yet applied	47 (30.3%)	14 (16.5%)	61 (25.4%)
Process of getting benefit is cumbersome (multiple steps in receiving benefits)	41 (26.5%)	13 (15.3%)	54 (22.5%)
Others **	2 (1.3%)	1 (1.2%)	3 (1.3%)

***Multidimensional scale perceived social support **Other includes illiterate, physical mobility issues etc**

In family set up, majority 48.9% elderly perceived moderate social support from family while in OAHs 47.3% elderly perceived low social support from family. Among elderly in family set up, majority (70%) had perceived moderate social support from friends while in OAHs 34.5% elderly had perceived moderate social support from friends. In family set up, 58.9% elderly had perceived high social support from significant other while in OAHs 59.1% elderly had perceived low social support from significant other. In family set up, 54.2% elderly had perceived overall moderate social support followed by 36.3% elderly who had perceived overall high social support while in OAHs 41.8% elderly had perceived moderate overall social support followed by 37.8% elderly who had perceived overall low social support.

Both in family set up and in OAHs nearly above 90% were having knowledge about any existing social welfare scheme for older person. Among

elderly those who were availing scheme benefits, in famiy set up consisted of 50% were benefitted from national old age pension and 32.5% benefitted from widow pension schemes while in OAHs 69.2% benefitted from national old age pension while 30.8% benefitted from widow pension schemes. In family set up, majority (31%) of elderly not availing social welfare scheme benefits because not eligible/not applicable followed by 30.3% not yet applied and 26.5% elderly experience process of getting benefits is cumbersome. While in OAHs, 38.5% elderly did not had document followed by 23.5% elderly not eligible/not applicable.

Table 5: Reasons for settlement in OAHs

Reasons for settle in OAHs	Type of old age home (n=110)		
	Free n=73 (%)	Paid n=37 (%)	Total n=110 (%)
Home dispute	16 (21.9%)	10 (27%)	26 (23.6%)
No children	19 (26%)	3 (8.1%)	22 (20%)
Only female children	16 (21.9%)	5 (13.5%)	21 (19.1%)
Children settle other city/country	0 (0%)	10 (27%)	10 (9.1%)
Single#	20 (27.4%)	8 (21.6%)	28 (25.5%)
Other (economic, destitute)	2 (2.7%)	1 (2.7%)	3 (2.7%)

single consists of widow/widower/separated/divorced

The elderly were living in free OAHs because they were single (27.4%) followed by no children (26%), home dispute (26%) and only female children (21.9%). While among elderly living in paid OAHs, the most important reason was home dispute (27%) as well as children settle other city/country (27%) followed by only female children (13.5%).

DISCUSSION

The present study shows that the mean age of the elderly is 73.4 years, 140 (46.7%) were overall men elderly with 53 (48.2%) female elderly in OAHs and 83 (43.7%) men elderly in community, 98 (51.6%) geriatrics were illiterate in community vis a vis 19 (17.3%) in OAHs, 143 (47.7%) were in wedlock with frequency of 134 (70.5%) in community and 9 (8.2%) in OAHs. The various international and indian community and institution geriatric surveys conducted in 2019, 2021 and 2022 observed increased mean age of the elderlies ranging from 68.6 12, 72.6 13, 73.2 14 and 80.6 15 years. The variation in the frequency of men and women elderly was noted in various international studies carried out in 2020, 2021 and 2022 as higher proportion of male elderly by Camet et al,[16] (58.1%), EO Cadmus et al 14 (69.2%) and Ling Tang et al,[17] (58.5%) and greater percentage of female older adults in 71.8% by Hee Kyung et al,[15] and equivocal proportion of both genders by Shah R et al,[13] SCA et al,[12] and Subedi PK et al.[18] Slightly above 2/3rds geriatrics were in wedlock/married in institution international researches.[16,19] The relative frequency of uneducated/illiterate elderly varied from 46%,[20,21] to 53.3%,[22,23] to 70%,[24] and slightly above 50% i.e 52.4%,[25] >50.2%,[26] and 57.8%,[27] across various institution and community based geriatric indian studies. However, community based geriatric surveys by Devraj S, D mello MK,[28] in Karnataka and Mittal A et al,[29] in ambala district in 2019 revealed improved proportion of educated elderly with completed primary school (34.5%), high school (27.5%), graduate/PG (23.2%), professional degree (3.6%).

We observed greater proportion of elderly i.e above 9 out of 10 in both the groups had one or the other chronic morbidity with multiple morbidity higher in OAH (78.2%) versus community (64.7%) and single morbidity raised in community (32.6%) vis a vis OAH (20%). The national community based surveys carried across different geographical areas by Singh et al in 2022,[26] Parsuraman et al,[30] in 2021 and Mittal A et al,[29] in 2019 and international survey by Samadarshi SCA et al,[12] in 2022 in Nepal showed lesser proportion of elderly suffered from some or the other chronic illness being 64.4%, 46.7%, 54% and 64.4% respectively in comparison to the present study while a community national study by Devraj S D mello MK,[28] in 2019 in Karnataka revealed higher 83.6% elderly were on medication for their chronic morbidity which ascertains with our survey. In context to chronic illness prevalence in OAHs, the international institutional based survey by Zin PE et al,[27] in 2020 in Myanmar and Gowthamapura Venkatappa Kavana et al,[22] in 2018 and Onunkwor et al,[19] in 2016 in Kwalalumpur on elderly NGOs and by Shah R et al,[13] in 2021 in Nepal showed that above 80% subjects suffered from medical or surgical illness which is in concordance with the current study. Regarding the disease specific prevalence of chronic disorders amongst elderly in worldwide community based studies as in Nepal in 2022, it was observed that arthritis, bronchial asthma, hypertension and diabetes mellitus was present in 35.9%, 29.8%, 7.9% and 2.4% respectively in a survey by Samadarshi SC A et al,[12] in 2022 in Nepal on remote community elderly. While Shah R et al,[13] in 2021 in Nepal affirms that the prevalence of fraility was greater in OAH dwellers (71.5%) as compared to 56.3% in community dwellers. The most common chronic disorder revealed to be as musculoskeletal disorder (arthritis) in a national community survey done by

Singh et al,[26] in 2022 in rural backward district. Nearly or less than 20% elderly had vision problems in the national studies by Singh et al,[26] in 2022 and Parsuraman et al,[30] in 2021 in Tripura. However, in the present study, the ophthalmic illness was found in 94.3% elderly which is higher than the past research conducted. In context to OAH national studies, in a national survey by Chauhan RP et al,[24] in 2019 in Maharashtra OAHs inmates elderly, it was observed that the locomotor disorder was highest in 52.5%, followed by cataract in 47.5%, hypertension in 17.5%, diabetes in 15%, genitourinary and decreased hearing, each with 7.5%, IHD (ischaemic heart disease) in 5% and respiratory problems in 2.5%. The various dental health problems noticed in the study were missing teeth in 65%, caries in 25%, discolouration in 22.5% and dentures in 20%. On the other hand, majoriy of the elderly residing in bangalore OAH had hypertension in 64.3%, diabetes in 34.9% while only 15.5% of them were suffered from arthritis as revealed by Rangra G et al,[31] in 2019 in Bangalore OAHs. However, neuropsychiatric illness were the commonest morbidity amongst OAHs elderlies in 65% with epilepsy in 30% and bipolar disorder in 28% as observed in the research conducted by Gowthamapura et al,[22] in 2018 on OAHs elderly and in present study, neuropsychiatric illness was revealed in only 7.3% elderly which is in discordant with the previous conducted research. The high frequency of community elderly had psychiatric illness (38.3%) than their OAHs counterparts in 30% as revealed by Singh et al,[26] national survey in 2012 on both OAHs and community.

In the present study, nearly half of the elderly in both the settings were at risk of malnutrition and higher proportion was malnourished (25.3%) in community than at OAH (19%) and only 18% were well nourished in community vis a vis higher proportion (19%) in OAH. Sabita Sharma,[32] in their international community research in Nepal in 2021 found higher frequency of elderly had normal nutritional status (34.5%) which is discordant with the present study results. Also, the higher frequency of older adults were found to be malnourished in the international community based studies conducted by Abate T et al,[33] in 2020 in Ethiopia, Joymati O et al,[34] in 2018 which is being 26.6% and 20.8% respectively in comparison to the present study. However, Agarwalla R et,[35] al in their international community study found relatively frequency of malnourished elderly lesser (15%) which is also in contrast to the current study. In context to OAH dwellers nutritional status, the international study by Soini H et al,[36] in 2004 on elderly home care patients showed higher proportion of well nourished elderly (49%) in comparison to 23.6% in OAH dwellers in the current study.

Our survey shows that the greater proportion of community elderly (54.2%) had perceived overall moderate social support than OAHs dwellers (41.8%). The moderate level of satisfaction level of social support received among participants was found to be lesser proportion (31.2%) in a community study by Ilyas Z et al,[37] in 2020. Whereas unlike present study , majority of the patients (61.5%) had perceived low social support in a community study by Rajgopal et al,[38] in 2021. Also, Onunkwor et al,[19] international survey in 2016 in their study on elderly homes in Kualalumpur showed that comparatively high level of low and medium social support was reported by 47.8% and 46.8% respectively while in present study 41.8% OAHs dwellers perceived overall moderate and 37.8% had perceived low social support. Similarly, community based international study by Shah R et,[13] al in 2021 in Nepal on both OAHs and community elderly dwellers, the weak social support was perceived in maximum 77% overall elderly. Nevertheless, in another community based international study by Hyas Z et al,[37] in 2020 had revealed that large number of older adults (48.3%) were highly satisfied with the social support received to them. Also, in a national study by Saritha et al,[39] in 2022 on both OAHs and community, only 8.3% community group elderly had social support.

The OAHs based geriatric international studies showed that various factors including socio-demographic such as gender, age, marital status , friends support, visit by relatives and self reported satisfaction by the institutes and presence of depression as psychiatric illness amongst elderly determines the social support delivery to them as observed by Zhao L et al,[40] in 2022 and Ling Tang et al,[17] in 2022 in China. In context to national OAHs based study by Saritha et al,[39] in 2022 conducted on both OAHs and community and by Gowthamapur et al,[22] in 2018 in OAHs, it was revealed that slightly above 2/3rd elderly (68.3%) had good social support by their friends than friends poor support in 18.3% and this relationship is significant too. Similarly, the special person support was greater (66.7%) in providing good support as compared to special person poor support in 20% elderly with significant association found. In a national community based study by Devraj S Dmello MK,[28] in 2019 in Karnataka, a declining trend was observed about the knowledge level and the utilization of government schemes by the elderly. Less than one-fifth older adults (15.4%) had awareness about various govt schemes with only 2.1% enrolled in them and only 0.8% got benefitted from the schemes they enrolled in. Furthermore, the 11.7% elderly opined for the need of other government schemes. Also, slightly above 50% (56.2%) did not have availability of senior citizen card.

The sole reason given by the elderly respondents in a national survey done by Saritha et al,[39] in 2022 on OAHs and community dwellers was that there was lacking of their own supportive children which urges them to admission in OAhs. In the present study, it was observed that elderly were living in

free OAHs because they were single (27.4%) followed by no children (26%), home dispute (26%) and only female children (21.9%). While among elderly living in paid OAHs, the most important reason was home dispute (27%) as well as children settle in other city/country (27%) followed by only female children (13.5%). Chauhan RP et al,[24] national survey in 2019 in their study showed that main causes of staying at OAH were family problems (50%), personal cause (45%) and economical cause was 5%. Another national survey by Rajeev MM and Ajikumar, VJ,[21] in 2015 in their study showed that 44% took the decision for institutional life because no one was ready to take care of them, 36% respondents were tormented by family problems, 10% had physical problem and could not survive without another's support, 6% were homeless and 4% took the decision mainly because of financial crisis. Also, Gupta A et al,[16] in 2014 in their study showed that the most important reason for elderly people living in public OAHs was no care taking person at home (77.1%) followed by poverty (20%), children do not support (17.1%) while in case of private OAHs, the most important reason was no care taking person at home (36.4%) followed by self-satisfaction (34.8%) and loneliness (31.8%).

CONCLUSION

The frequency of social support imparted by friends and family members (excluding spouse) was perceived to be of moderate category unlike low support by spouse or other close person. Their nutritional status was better as only one-fifth in toto were malnaourished but deranged health profile was found in maximum of these geriatrics in 98%. Since ageing is a natural phenomenon, therefore age related morbidity will always be there and thus there is an overwhelming need for practicing physicians to gain practical understanding into the health care problems of the elderly, including ways to identify and treat specific geriatric problems and provide positive counseling along with optimum social support to lead a peaceful life.

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