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QUALITY OF THE ELDERLY AND AVAILING OF NON-FOOD-BASED NATIONAL SOCIAL ASSISTANCE SCHEMES IN INDIA: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background: Health and quality of life (QOL) are crucial constituents. In providing social safety for older people, the weakening social support system and rising burdens are having huge impact. **Purpose:** To assess the QOL of old age people and their relationship with availing of non-food-based social assistance schemes. **Methods:** This was a descriptive community-based study which was conducted in urban slums of Bankura district, West Bengal among all individuals aged ≥60 years fulfilling inclusion and exclusion criteria. WHOQOL-BREF questionnaire was used for assessing QOL. **Results:** A total of 107 participants were recruited for the study. Most common morbidities were hypertension, diabetes mellitus, chronic bronchitis, etc. The majority (80.5%) of participants were receiving non-food-based NSAS for less than 10 years. Overall QOL was 'Good' in 69.2% of study subjects. Most of the elderly had 'Good' QOL in Physical, Psychological, Social, and Environment domains. Participants availing non-food-based NSAS had good physical, social, environmental health of QOL and overall QOL. **Conclusion:** Despite good QOL among the elderly, appropriate and relevant health indicators need to be developed.

Keywords: quality of life, elderly, morbidity

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INTRODUCTION

The biological process of aging is unavoidable. Although the UN does not have a set definition for defining the elderly, people 60 and older are typically referred to as being in the elderly population (Caraux-Paz *et al.*, 2021). The proportion of individuals over 60 years old climbed from 7.5% in 2001 to 8.6% in 2011 and is expected to reach 19% by 2050 (UNFPA, 2017). The senior population is growing in developing nations like India due to demographic transition, and their health is falling apart as a result of the country's rapid industrialization and urbanization (Qadri *et al.*, 2013).

According to the WHO, quality of Life (QOL) is an "individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns" (Epifanio *et al.*, 2021). In addition, the WHO stated that a betterment of health and quality of life is a crucial element (Andermann, 2016). At the 2010 UN Summit on the Millennium Development Goals (MDGs), the idea of a universal 'social floor' was initiated, aspiring that it is possible to extirpate destitution and provide social security for all (Jha *et al*., 2013). An upsurge in the loss of functional ability and physical control in older ages has been linked to retirement, spouse loss, and financial difficulties. The rapidly increasing number of older people in both developed and developing countries poses a risk to their overall quality of life (Shah *et al*., 2017). As a result, a decline in health and general well-being is anticipated to result from the effects of aging, societal change, and diseases in tandem (Dasgupta *et al*., 2018). The elderly have psychological distress as a consequence, and occasionally they move into an old age home (Lalan, 2014). This is accompanied by a higher risk of illness, incapacity, diminished functional ability, and ultimately fatalities. Preventing disability and ensuring an unparalleled quality of life for senior citizens is the challenge of the twenty-first century (Qadri *et al*., 2013).

Since 1995, the National Social Assistance Programme (NSAP) has provided social assistance to people living below the poverty line, especially the elderly, people with disabilities, and widows. National Family Benefit Scheme, Indira Gandhi National Disability Pension Scheme, Indira Gandhi National Old Age Pension Scheme (IGNOAPS), Annapurna Scheme, and Indira Gandhi National Widow Pension Scheme (IGNWPS) are some of the pension schemes included in NSAP. Over 3.1 crore beneficiaries were covered by NSAP in 2012-13 at an estimated cost of Rs. 8,447 crores (CBGA India, 2016). The governments of India have played a larger role in ensuring the safety of older people because of deteriorating family and social support systems. India's social protection approach is encountering salient modifications equivalent to the country's recent growth and poverty depletion circumstances. Achieving the Sustainable Development Goals (SDGs) for social protection, inclusion, and poverty eradication has also been made possible by NSAP. Approximately 4.65 crore beneficiaries relied on old age, widow, disability pensions, and family benefits annually between 2017-21 (Divyakirti, 2024). But India also has inequitable access to and utilization of its health resources (Dey *et al*., 2012). Social security programs are not always effectively and uniformly executed, and, in certain circumstances, the non-targeted population takes advantage of services. According to reports, IGNOAPS had a lack of promptness and delayed pension payments, just 21% of beneficiaries received monthly payments, and there was no clear process established for addressing complaints. The Annapurna Scheme had inept social marketing. Government of West Bengal Pension Plan for the Elderly had a fund crunch (Alam *et al*., 2014). The issues that elderly individuals experience is perpetuated by changing societal structures and existing health systems, which could have a detrimental effect on their quality of life (Goyal *et al*., 2022). NSAP has a web portal that provides information on guidelines, reports, circulars, grievance redressal, etc (Divyakirti, 2024). Life span should have quality and then feelings of complacency could be achieved (Shah, 2017).

The current elderly statistics hint at a new set of medical, social, and economic problems if a timely intervention is not made. Quality of Life (QOL) appears to be a neglected problem, particularly in developing nations like India (Kumar *et al*., 2014).

Numerous studies on QOL among the elderly have been carried out abroad (Hongthong *et al*., 2015; Top *et al.*, 2015; Rantakokko *et al*., 2016; Akosile *et al*. 2021; Ghenţa *et al*., 2022). In India, very little research had been done to evaluate the QOL of the elderly (Kumar *et al*., 2014) and the majority of those studies focused on the quality of life for older people living in India's rural regions (Karmakar *et al*., 2018; Bansal *et al*., 2019; Debnath *et al*., 2021). Elderly people living in urban slums, which constitute the underserved segment of the urban population, were not given enough attention. It would be beneficial to conduct research in this area to ascertain the precise state of geriatric people's quality of life. Findings from the research may serve as a foundation for future investigations and intervention techniques.

The medical and psychosocial issues that India's senior population is dealing with must be brought to light, and methods for raising their quality of life must also be investigated (Qadri *et al*., 2013). Therefore, there is a paucity of comprehension regarding the factors that affect elderly slum people's quality of life and the relevance of NSAP, particularly in developing nations like India. A good quality of life is defined as excellent mental and physical function, active participation in life, and a low perceived risk of illness and impairment among older adults (Krishnappa *et al.*, 2021). A sense of contentment can only be attained when longevity coexists with quality (Shah, 2017). With this context in mind, this study aims to evaluate elderly people's QOL as well as the relationship between QOL and availing non-food-based social assistance programs.

METHOD

Study Design and Participants

Observational descriptive analytic research with cross-sectional design was conducted in a community, under the jurisdiction of Urban Health Training Centre (UHTC), Bankura Sammilani Medical College & Hospital (BSMCH), Slums of Patpur, Bankura from January 2017 to June 2017. According to the 2011 Census, Patpur Slum, which is under the authority of the Bankura Municipality, had 25480 elderly individuals overall. A total of 107 individuals aged ≥60 years and willing to give consent for participation were incorporated in the study excluding seriously sick, mentally challenged individuals and not willing to give consent.

Study Area, Data Collection, and Measurement

Urban field practice areas of Department of Community Medicine, BSMC, was chosen purposively. All the three slums under UHTC (Sahispara, Bauripara and Baganbasti) were included. Purposive sampling method was employed to gather the data. Every research subject from the three slums listed above was interviewed in turn, by complete enumeration. The study participants were interviewed by house to house visit after explaining them the purpose of the study with a predesigned, pretested interviewer-administered questionnaire consisting of basic characteristics of the study participants like age, sex, caste, religion, education, occupation, and socioeconomic status by modified and updated B.G. Prasad scale (Mangal, 2015), marital status, addiction, morbidity pattern, availing of non-food-based social assistance scheme etc., and WHOQOL-BREF for assessing quality of life (Ilić *et al*., 2019; Epifanio *et al*,, 2021; Nashwan *et al*., 2021). Morbidity pattern was assessed based on medical records. WHO-QOL BREF is a brief version of the WHOQOL-100 scale containing 26 items. Physical health, psychological health, social relationships and environment are the four domains of the scale. Each domain was rated on a 5-point Likert scale. For each domain, raw scores were calculated by adding single item values and then transformed to a score ranging from 0 to 100, where 100 is the highest and 0 is the lowest. In this instrument what is measured is Physical domain, psychological domain, Social Relationship domain, and Environmental domain.

Ethical Clearance

Participants' verbal informed consent was acquired. The Bankura Sammilani Medical College's institutional ethics committee, located in Bankura, West Bengal, India, granted authorization for the study (Memo No. BSMC/Aca/89 Dt.11.01.2016).

Data Analysis

Data were analyzed by using SPSS software (24.0 version). Frequencies and percentages were used to represent descriptive statistics. Relationship between the Physical,

Psychological, Social, and Environment domains, overall QOL, availing of non-food-based NSAS and other variables were calculated by chi square tests. In studies having a 95% confidence interval, a p value of 0.05 or lower was deemed significant.

RESULT

A total of 107 participants were counted by complete enumeration over the study period and included in the analysis. Majority of participants were male (50.5%), young old (83.2%) persons. Most participants were Hindu (95.3%), Scheduled Caste (73.8%), illiterate (50.5%), married (91.6%), at home (56.1%), from joint family (57.0%) and belonged to lower socioeconomic status (63.6%). Nearly thirty percent (29.9%) of participants had any form of addiction. Out of them (96.9%) were addicted for less than 10 years where most of the addiction related to smoking and chewing tobacco (43.8%).

Table 1. Demographic and socioeconomic characteristics of the study participants (n=107)

Variables	Frequency (f)	Percentage (%)
Age group (in years)		
≤75 (Young old)	89	83.2
>75 (Very old)	18	16.8
Sex		
Male	54	50.5
Female	53	49.5
Religion		
Hindu	102	95.3
Muslim	5	4.7
Caste		
Scheduled caste	64	59.8
General caste	32	29.9
OBC	11	10.3
Educational status		
Illiterate	54	50.5
Literate	53	49.5
Occupation		
At home	60	56.1
Working	47	43.9
Marital status		
Married	98	91.6
Widow/Widower	9	8.4
Type of family		
Joint	61	57.0
Nuclear	46	43.0
Socioeconomic status		
Lower	68	63.6
Lower-middle	36	33.6
Middle	3	2.8
Addiction		
Present	32	29.9
Absent	75	70.1
Type of addiction*(n=32)		
Smoking tobacco	14	43.7
Alcohol	5	15.6
Chewing tobacco	14	43.7
Duration of addiction (n=32)		
≤ 10 years	31	96.9
>10 years	1	3.1

*Multiple responses present

Among the study participants most common morbidities were hypertension (32.7%), diabetes mellitus (Type-2) (28.9%), chronic bronchitis (18.6%) and musculoskeletal disorder (14.0%) (Table. 2).

Table 2. Morbidity pattern of the participants (n=107) *

Morbidities	Frequency (f)	Percentage (%)
Hypertension	35	32.7
Diabetes mellitus (Type-2)	31	28.9
Chronic bronchitis	20	18.6
Hearing impairment	9	8.4
Cataract	5	4.6
Musculoskeletal disorder	15	14.0
Others (obesity, renal disease, ischemic heart disease, dental problem)	10	9.3

*Multiple responses present

Nearly 40% of participants were receiving non-food-based national social assistance schemes. The majority (80.5%) of participants were receiving non-food-based NSAS for less than 10 years (Table. 3).

Table 3. Distribution of participants according to availing of non-food-based national social assistance schemes (NSAS) and its duration

Variables	Frequency (f)	Percentage (%)
Availing non-food-based NSAS (n=107)		
Yes	41	38.3
No	66	61.7
Duration of availing of non-food-based NSAS (n=41)		
≤10 years	33	80.5
>10 years	8	19.5

Most of the participants had 'Good' QOL in Physical (71.0%), Psychological (68.2%), Social (66.4%) and Environment (62.6%) domains. Overall QOL was 'Good' in 69.2% of study participants (Figure no. 1). There were statistically significant differences of overall QOL among study participants who were Scheduled Caste, illiterate, working and from joint family. Overall QOL was better in participants who belonged to Scheduled Caste than other castes. The proportion of good QOL was more among illiterate than literate (P=0.00). Participants who were from joint family and currently working had statistically significant better overall QOL (Table. 4).

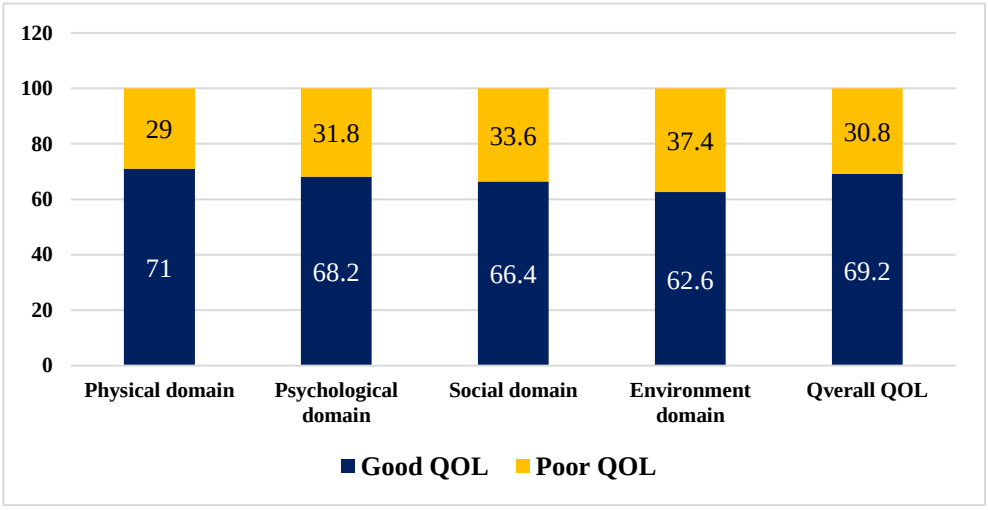

Figure 1. Respondents' quality of life in relation to several QOL domains

Table 4. Determinants of Overall QOL (n=107)

Variables		Overall QOL		Total	Chi-square	P value
		Good f (%)	Poor f (%)			
Educational level	Illiterate	46(85.19)	8(14.81)	54	13.128	*0.00*
	Literate	28(52.83)	25(47.17)	53		
Marital status	Married	65(66.3)	33(33.7)	98	0.491	0.48
	Widow/ widower	7 (88.9)	2 (11.1)	9		
Age	≤75 years	62(69.7)	27(30.3)	89	0.063	0.80
	>75 years	12(66.7)	6(33.3)	18		
Family type	Nuclear	25(54.35)	21(45.65)	46	8.298	*0.00*
	Joint	49(80.33)	12(19.67)	61		
Caste	SC	54(84.38)	10(15.62)	64	17.288	*0.00*
	Others (General, OBC)	20(46.51)	23(53.49)	43		
Occupation	At home	32(53.33)	28(46.66)	60	16.039	*0.00*
	Working	42(89.36)	5(10.64)	47		
Addiction	Present	19(59.38)	13(40.62)	32	0.331	0.56
	Absent	40(37.38)	35(62.62)	75		

Participants availing non-food-based NSAS had good Physical, Social, Environment health of QOL and overall QOL (Table. 5).

DISCUSSION

In this study most of the participants (83.2%) belonged to young old age group and 50.5% were male.

Table 5. Association of availing of non-food-based NSAS and QOL in various domains (n=107)

Variables		QOL		Total	Chi-square	P value
		Good f (%)	Poor f (%)			
Physical domain of QOL (Domain 1)						
Availing of non-food-based NSAS	Yes	34(82.9)	7(17.1)	41	4.573	*0.03*
	No	42(63.6)	24(36.4)	66		
Psychological domain of QOL (Domain 2)						
Availing of non-food-based NSAS	Yes	30(73.17)	11(26.83)	41	0.750	*0.38*
	No	43(65.15)	23(34.85)	66		
Social domain of QOL (Domain 3)						
Availing of non-food-based NSAS	Yes	37(90.24)	4(9.76)	41	16.991	*0.00*
	No	34(51.52)	32(48.48)	66		
Environment domain of QOL (Domain 4)						
Availing of non-food-based NSAS	Yes	19(46.3)	22(53.7)	41	7.521	*0.00*
	No	48(72.7)	18(27.3)	66		
Overall QOL						
Availing of non-food-based NSAS	Yes	35(85.37)	6(14.63)	41	8.186	*0.00*
	No	39(59.10)	27(40.90)	66		

Similar findings were concluded in a study conducted in rural elderly population of Ambala district, Haryana (Qadri *et al*., 2013). But female preponderance was found in studies done by Shah *et al*. (2017) in Gujrat and Qadri *et al*. (2013) in Karnataka.

Most of the participants in this survey practiced Hinduism (95.3%), were married (91.6%), worked (43.9%) and belonged to lower SES (63.6%). Similar findings were concluded in research done among the elderly in rural Ambala, Haryana where 90% were Hindu, 69.8% married, 81.8% participants were working, 72.7%, SES category IV (Qadri *et al*., 2013). A study by Sowmiya and Nagarani (2012) in Nagarani in south India revealed that the majority were from lower class of Prasad's scale. Older individuals, especially the impoverished and weak, have a guaranteed monthly income source thanks to the social pension system (Kumar *et al*., 2016).

Education is a multidimensional factor in a person's life. In the current study, 50.5% of the respondents were illiterate compared to a study in Kerala by Qadri *et al*., (2013) where 63.9% were illiterate. A similar picture was shown in a study done by Rajeev and Ajikumar, (2015) where 46% of participants were illiterate. But in studies conducted in Puducherry and Karnataka it was found that 39.3% and 24.3% of study participants were illiterate, respectively (Kumar *et al*., 2014; Karmakar *et al*., 2018.

In the present study, the most common morbidities were hypertension (32.7%), diabetes mellitus (Type-2) (28.9%), chronic bronchitis (18.6%) and musculoskeletal disorder (14.0%).

A similar morbidity pattern was found in the study conducted in Puducherry where 42.3% were hypertensive and 25.3% had diabetes (Kumar *et al*., 2014). But in the study conducted in Haryana it was found that most of the participants had anemia, dental problems, joint pain, cataract, etc. (Qadri *et al*., 2013). Joint pain (42.8%), cataract (32.8%), hypertension (22.4%), diabetes mellitus (17.2%), and dental issues (12.4%) were the most prevalent morbidities among the Gujarati study population (*Shah et al*., 2017).

In this study, nearly 40% of participants were receiving non-food-based national social assistance schemes compared to 3.1 core beneficiaries of NSAP in 2012-2013 (Estimates Committee Report Summary, 2014).

In the current study, the QOL of nearly 30% of old age people were opined to be "Poor." This finding is comparative with a study done by Shah *et al*. (2017) in Gujrat where 44% had poor quality of life. But in a study done in Haryana by Qadri *et al*. (2013) in north India only 0.9% of older people had a poor quality of life. But in a study in Tamilnadu it was found that most of the elderly had moderate QOL (Sowmiya and Nagarani 2012).

In the present study, QOL was found to be higher among the participants belonging to a Scheduled Caste family. But in the study conducted in Haryana it found that non-Scheduled Caste, higher educated (graduate) participants had statistically better QOL (Qadri *et al*., 2013). As in the present study, most of the participants belonged to Scheduled Caste population; therefore, it may be a localized association. In this study, illiterate participants had higher QOL. But in a study done by Kumar *et al*. (2014) at Urban Puducherry, it was found that participants with no schooling had poor QOL. In the present study, participants who were working had higher QOL. Similar results were found in Haryana where non-working participants had poor QOL (Qadri *et al*., 2013). Working might be a cause of negative thought diversion, mental well-being of earning and feeling as a financial contributor to their family. This study showed that participants from a joint family were found to have higher QOL compared to participants from a nuclear family. A similar picture was depicted in a study done in Puducherry by Kumar *et al*. (2014).

Physical domain of QOL (Domain 1), Social domain of QOL (Domain 3), Environment domain of QOL (Domain 4) and overall QOL were positively associated with non-food-based NSAS in the concerned study. Elderly who availed non-food-based NSAS had better overall QOL (P=0.00). Even though it is a tiny sum, it is helpful since it results in less reliance on the family and more confidence and dignity. It frees them from the stresses of old age and the pressure to labor to pay for everyday needs and foods (Kumar *et al*., 2016).

Limitation

The present study has its own limitations. Due to the convenience sampling approach, it is not possible to generalize the findings and it's prone to research bias. The

study has a higher risk of recall bias because it involves an elderly group. Under reporting or undiagnosed diseases are also another limitation because only the diagnosed cases were taken into consideration.

CONCLUSION

QOL was poor among 30% of the elderly participants. Even though the aging process, illnesses, and disabilities associated with old age cannot be completely avoided, appropriate steps can be taken to slow this progress, extending their period of health and preserving their quality of life. The initial step to its use among the elderly is raising awareness among them of the benefits that are accessible. The prevention and treatment of chronic diseases should be prioritized. Healthy aging should be the focal theme of aging research. A high quality of life may indicate that the elderly are aging well and pleasantly.

SUGGESTION

A specialized survey should be carried out to identify elderly people who are at risk and the hardships they face. It is important to create appropriate and pertinent indicators of old age health that take into account how the elderly view and value their health. Therefore, comprehensive research through multidisciplinary assessment should be conducted across the country on issues like social security, quality of life, and the needs of the elderly addressed. The community ought to establish geriatric care and counselling for the benefit of the aged, especially those who anticipate their health is poor. Schemes must be put into effect to accommodate this vulnerable population's needs for decreased mobility and safety considerations.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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AUTHOR CONTRIBUTION

Sourav Lo contributed to data collection, data analysis, manuscript writing, and literature review. Rama Pramanik contributed to study design, data collection and supervision, and manuscript revision. Daliya Biswas contributed to study design, data collection, manuscript writing, literature review, manuscript revision.

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