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NEWS & VIEWS

Announcement

The members of the Editorial Board of the Indian Journal of Gerontology are happy to announce that two well-known geriatrics and social gerontology scholars have agreed to serve as consulting editors.

Dr. Christopher Patterson, MD, FRCPC, FACP, FRCP (Glasg.), a seasoned professional in the field, is a Professor Emeritus at McMaster Institute for Research on Aging (MIRA). His specialisation in internal and geriatric medicine is backed by years of experience. He has held key roles in the Division of Geriatric Medicine (Department of Medicine) at McMaster University, Canada, and his leadership in ageing studies has inspired many. He has been a part of numerous federal and provincial government-sponsored task forces.

Dr. Patterson's research interests are wide-ranging and comprehensive, covering preventive health care for seniors, elder abuse, frailty, and various aspects of cognitive disorders. His active role as a co-investigator in the Canadian Longitudinal Study on Aging, where he served as Chair of the Clinical Working Group from 2007 until 2015, has led to numerous publications in peer-reviewed journals, supplements, and text books. Dr. Patterson's research has a significant impact or influence on the field of geriatric medicine. He has authored or contributed to over 250 scientific publications. He has a long association with the Indian Gerontological Association. He conducted a four-day geriatric medicine workshop with 61 doctors working in different hospitals (both government and private hospitals in Rajasthan in the year 2009 (from February 1-4, 2009). This workshop was organised in collaboration with the Department of Aging (NICE), University of Toronto, Canada.

Suhita Chopra Chatterjee, Ph. D., is a professor in the Department of Humanities and Social Sciences at IIT Kharagpur (India). She has worked on various aspects of sociology in India and has an abiding interest in the sociology of health and illness, the sociology of medicine, tourism studies, and Indian philosophical thought. Her significant contributions to the field of Social Gerontology, including numerous papers on the challenges faced by senior citizens and the care of the elderly, serve as an inspiration to many. She has authored four books and published articles in several national and international Journals. Her latest works include a co-edited volume on *Discourses on Ageing and Dying* (Sage).

Role of Recreational Activities in Attitude towards Self, Geriatric Depression, Death Anxiety and Coping among male and female senior citizens of Kolkata

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ABSTRACT

This study makes a significant contribution to the field of psychology and gerontology by examining the influence of recreational activities and gender on attitudes toward self, depression, anxiety, and coping in older people. It also investigates whether attitudes toward self can predict depression, anxiety, and coping mechanisms among older adults. This cross-sectional study involved 168 retired males (N=88) and females (N=80) aged 61-75 years from Kolkata, West Bengal. Participants engaged in either active or passive recreational activities. They were assessed using the Attitude Towards Self Scale (ATS), COPE Inventory, Geriatric Depression Scale (GDS), and Death Anxiety Questionnaire (DAQ). Data were analysed using Linear Regression and ANOVA to explore variable relationships.

The findings revealed that gender and type of recreational activity significantly affected coping strategies, with males and those engaging in active activities showing higher positive growth and instrumental coping scores. Passive activity participants reported more significant depression and death anxiety. Regression analysis indicated that various domains of attitudes toward self were substantial predictors of coping strategies, death anxiety, and depression. The findings of this study underscore the need for practitioners and researchers in the field to actively promote and encourage elderly individuals to participate in active recreational activities. Your role in promoting such engagement is crucial, as it improves psychosocial factors and overall well-being and functioning. These findings will provide valuable insights, empowering you to make a difference in the mental health of elderly individuals.

Keywords : Recreation, Elderly, Coping, Depression, Anxiety

Life presents a paradox; individuals seek maturity yet fear ageing. One of the most critical transitions is from thus adulthood to old age. Ageing brings wisdom, but it also introduces numerous physical challenges. Additionally, elderly individuals frequently experience declines in both physical and cognitive capacities. Thus, ageing can be defined as the process by which a person's functional capacity diminishes due to structural changes in the body. The decrease in functional capacity has physiological, psychological, and sociological components. Psychological ageing involves declining cognitive abilities such as learning, memory, attention, and problem-solving. Sociological ageing signifies the diminishing social value an individual may experience in work and other areas after age (Kaushik & Panshikar, 2024).

Our understanding of ageing societies is primarily based on studies in developed countries in Western Europe, North America, and,

increasingly, Asia. However, the implications of ageing demographics are not limited to these regions. Developing nations in South America, Africa, and Asia also face significant challenges. The World Bank and the United Nations are mainly concerned with ageing issues in countries previously referred to as the Third World. Notably, China and India, two of the oldest societies globally, are undergoing rapid modernisation, urbanisation, and globalisation, resulting in substantial growth in their ageing populations. According to the United Nations (2013), the elderly population will rise to approximately 296 million by 2050. Given this substantial increase, it is imperative to focus on the needs and well-being of the geriatric population. The United Nations Population Fund (2012) has described the 21st century as the century of elderly persons. In light of these significant observations, it is essential to prioritise the needs and well-being of the geriatric population, not just in specific regions but globally.

A study identified four key factors linked to the sensation of feeling old among elderly individuals (Nilsson *et al.*, 2000):

- The ability to pinpoint when they began feeling old
- Fear of helplessness and the inability to manage their life situation
- Difficulty recognising their former selves
- A sense of feeling different from others

From these four characteristics, it becomes evident that older individuals experience a shift in their self-perception and self-processing. Self-criticism may increase as individuals age, significantly when they recognise that their previous physical and mental capabilities have diminished. This decline can make them more aware of their weaknesses, leading to feelings of frustration. They may begin to view setbacks or failures as final, which could heighten their sense of vulnerability (Moghanloo & Dadfar, 2024). This decline in abilities can significantly impact an individual's motivation to move forward and may trigger a range of psychological issues. This loss of confidence can lead to feelings of helplessness, anxiety, or even depression as the

individual struggles to adapt to their new limitations (Duarte *et al.*, 2017).

Retirement often follows as people enter old age, bringing much free time. Individuals who were once engaged in work must now find ways to manage and fill this newfound leisure. One productive way to utilise this time is through recreational activities, which can provide a sense of renewal and offer stimulating, enriching experiences. These activities help individuals maintain a sense of purpose and vitality during retirement (Kamioka *et al.*, 2013). So, in a sense, recreational or leisure activities are defined as “voluntary, non-work activities that are engaged in for enjoyment”. Active activities involve physical and cognitive stimulation, such as exercising, travelling, or participating in social groups. Meanwhile, passive activities like watching TV or reading are less physically and mentally engaging (Shin & You, 2013).

Engaging in active recreational activities involving physical and cognitive stimulation, such as exercising, travelling, or participating in social groups, can significantly enhance a person’s well-being. Studies have shown that such active leisure pursuits promote better stress management and function as palliative coping strategies, helping to reduce depression and anxiety levels in the elderly. These activities, which require more engagement than passive ones, offer physical and mental stimulation, contributing to improved mental health and emotional resilience (Iwasaki *et al.*, 2005).

Old age represents the final stage of adult life, yet it is often neglected regarding the care and attention it requires. While existing research has explored various psychosocial factors and their impact on ageing, there remains a significant gap in understanding how elderly individuals navigate the transition from active work life to retirement and their coping strategies during this critical period. The necessity of this study is urgent, as it arises from the limited research focusing specifically on how retirees find meaning and purpose through recreational activities during this transition. By investigating the effects of recreational engagement on psychological variables like attitude towards self, coping, depression, and death anxiety, this study aims to

fill a crucial gap in the literature. The potential impact of this research on the well-being of elderly individuals during a key phase of adjustment is significant and promising, offering hope for improved mental health and emotional resilience among the elderly.

Objectives

1. To determine the role of engagement in recreational activities (Active and passive) in attitude towards self, coping, geriatric depression, and death anxiety among senior citizens.
2. To determine the role of gender (male and female) in attitude towards self, coping, geriatric depression, and death anxiety among senior citizens.

Method

A cross-sectional study was conducted among 168 retired pension holders (80 females and 88 males) from Kolkata between the age group of 65-75. They were selected through multistage stratified random sampling to ensure a balanced representation of elderly individuals from different parts of the city. A list of banks across Kolkata that discharge pensions to elderly individuals was prepared. Four zones of Kolkata—North, South, East, and West—were identified for data collection. Three banks were randomly selected from each zone, resulting in 12 banks. Twenty pension holders from each bank were approached, leading to 240 individuals being initially contacted across the 12 banks. Participants were approached individually at the selected banks. After explaining the study's purpose, consent forms were provided, and only those who gave informed consent were included. Of these, 72 people did not meet the inclusion criteria or declined to participate. Ultimately, 168 participants were selected for the study.

Participants included in the study were required to be engaged in some form of recreational activity, economically independent, and receive a pension ranging from Rs. 30,000 to Rs. 80,000. The participants had to be retired for at least one year. Participants also needed to live independently without their offspring, and all had a background in service-based occupations. Only residents of Kolkata

were considered. Participants were excluded if they were suffering from any life-threatening physical illness or significant psychological disorders, including neurocognitive disorders. Those who had encountered a major stressful life event in the past year, were unmarried, or had no history of service-based employment were also excluded from the study.

After selection, the participants were divided into four groups:

- Group 1: Males engaging in active recreational activities.
- Group 2: Females engaging in active recreational activities.
- Group 3: Males engaging in passive recreational activities.
- Group 4: Females engaging in passive recreational activities.

Statistical analysis

Statistical analysis for this study was conducted using the Statistical Package for the Social Sciences (SPSS), Version 20 (IBM Corp., Armonk, N. Y., USA). Descriptive statistics such as mean and standard deviation were calculated to summarise the data. Pearson's product-moment correlation was conducted to explore the relationships between attitude towards self, depression, anxiety, and coping strategies. Regression analysis was also performed to determine whether attitude towards self-predicted depression, anxiety, and coping strategies in the elderly participants. Also, a two-way ANOVA was employed to analyse the effects of gender and type of recreational activity on the different variables.

Tools used

Information Schedule

This tool gathered information about the participants' personal, familial, and leisure activities. Participants were given a list of recreational activities and asked to indicate which ones they had primarily engaged in over the past month. Additionally, the duration of these recreational activities, carried out each week, was recorded.

Attitude Towards Self Scale-Revised

The ATS-R is a 10-item scale designed to assess three key self-regulatory vulnerabilities to depression: holding overly high standards (High Standards), being self-critical in response to any perceived failure (Self-Criticism), and the tendency to generalise a single failure to one's overall self-worth (Self-Generalisation)(C. Carver *et al.*, 1988). Participants rate their agreement with each statement on a 5-point Likert scale, ranging from "I agree a lot" to "I disagree a lot." The factors demonstrated satisfactory content homogeneity, with High Standards/Self-Criticism showing a Cronbach's α of 0.87 and a mean inter-item correlation of 0.46. The Negative Generalization factor had a Cronbach's α of 0.75 and a mean inter-item correlation of 0.43 (Innamorati *et al.*, 2013).

COPE Inventory

The COPE inventory is a comprehensive tool to assess individuals' coping strategies in response to challenging or stressful situations(C. Carver, 2013). It contains 60 items measuring 15 distinct coping strategies, including Acceptance, Active Coping, Behavioral Disengagement, Denial, Seeking Emotional Support, Humor, Seeking Instrumental Support, Mental Disengagement/Self-Distracton, Planning, Positive Reinterpretation, Religion, Restraint, Substance Use, Suppression of Competing Activities, and Venting. Participants rate the frequency of each coping response using a 4-point Likert scale, ranging from 1 ("I usually do not do this at all") to 4 ("I usually do this a lot"). In the original study, internal consistency (Cronbach's α) for the first-order factors ranged from 0.62 to 0.92, except for the mental disengagement scale ($\alpha = 0.45$). Test-retest reliability coefficients ranged from 0.46 to 0.86. (C. S. Carver *et al.*, 1989). Convergent and discriminant validity were assessed by correlating COPE's first-order factors with personality traits such as optimism, hardiness, self-esteem, trait anxiety, social desirability, and perceived control, with associations aligning as expected between adaptive and less adaptive coping subscales and various personality traits (C. S. Carver *et al.*, 1989).

Geriatric Depression Scale - 15

The GDS is a 15-item scale designed to assess and diagnose various depressive symptoms in elderly individuals, covering areas such as mood, physical symptoms, and cognitive symptoms(Yesavage et al., 1982). Participants respond to items in a dichotomous format by answering “yes” or “no.” Higher scores indicate greater levels of depression. GDS-15 demonstrated moderate internal consistency reliability with a Cronbach’s alpha of 0.75, indicating acceptable reliability for this measure in functionally impaired, cognitively intact elderly populations(Friedman *et al.*, 2005). Exploratory factor analysis revealed a two-factor structure encompassing depression and positive affect, supporting the scale’s construct validity(Friedman *et al.*, 2005).

Death Anxiety Questionnaire

The DAQ is a 15-item self-report measure assessing death anxiety across four domains: fear of the unknown, fear of suffering, fear of loneliness, and fear of personal extinction. Participants rate each item on a three-point scale: 0 (“not at all”), 1 (“somewhat”), and 2 (“very much”)(Conte et al., 1982). The DAQ has demonstrated strong content validity, internal consistency, and construct validity with excellent internal consistency ($\alpha = .90$), supporting its reliability for assessing death anxiety across diverse populations(Zuccala *et al.*, 2022).

Results

Table 1

Mean and Standard Deviation of Attitude towards self domains, Cope domains, Geriatric Depression and Death Anxiety

	Male				Female			
	Active		Passive		Active		Passive	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
High Standards	11.18	2.52	11.00	3.01	10.50	3.19	10.75	2.88
Self-Criticism	10.29	3.36	9.92	3.09	10.45	3.19	10.63	3.30
Self Generalisation	12.48	3.74	12.00	3.67	11.80	3.41	13.13	3.13
Positive Growth	13.02	2.84	12.63	2.82	12.73	3.43	10.83	3.08
Mental Dis-engagement	7.63	2.05	7.68	1.93	7.93	1.91	8.20	2.34

Focus	8.89	3.01	8.20	3.19	9.15	3.38	8.75	2.80
Instrumental	11.02	3.53	10.65	3.13	10.65	3.06	8.88	3.11
Active	12.31	3.14	11.85	2.92	12.28	3.16	10.83	3.03
Denial	6.90	2.87	6.78	2.47	5.75	2.35	6.90	2.60
Religious	9.71	3.95	10.50	4.28	10.13	3.81	11.15	4.14
Humour	6.43	2.45	6.15	2.51	6.70	2.90	6.42	2.55
Behavioural Dis-engagement	6.90	2.70	6.57	2.85	6.42	2.44	8.07	2.82
Restraint	11.04	2.91	10.35	2.91	10.97	2.10	9.50	2.49
Emotional Support	9.16	3.36	8.65	3.21	9.47	3.32	9.02	3.20
Substance Use	4.64	1.65	4.67	2.15	4.67	2.15	4.45	1.21
Acceptance	11.12	2.90	9.95	3.47	11.70	2.64	10.30	2.71
Suppression	10.37	2.72	9.77	3.19	10.52	2.45	9.07	2.58
Planning	12.85	2.96	12.75	3.07	12.97	2.89	10.82	3.22

Table 2

Two way analysis of variance showing the effect of recreational activity, gender, and their interaction effect on domains of Attitude towards Self of male and female senior citizens

Domain	Source	SS	df	F
High Standard	Recreational Activity	0.04	1	0.01
	Gender	9.71		1.09
	Recreational activity * Gender	1.99		0.24
Self-criticism	Recreational Activity	0.38		0.04
	Gender	7.69		0.73
	Recreational activity * Gender	3.06		0.29
Self-generalisation	Recreational Activity	7.47		0.61
	Gender	2.07		0.17
	Recreational activity * Gender	33.97		2.77

Table 3

Two way analysis of variance showing the effect of recreational activity, gender, and their interaction effect on domains of COPE towards Self of male and female senior citizens

Domain	Source	SS	df	F
Positive Growth	Recreational Activity	55.00	1	5.95**
	Gender	45.84		4.96**
	Recreational activity * Gender	23.61		2.55

Mental Dis- engagement	Recreational Activity	1.10		0.26
	Gender	7.10		1.67
	Recreational activity * Gender	0.53		0.12
Focus	Recreational Activity	12.53		1.31
	Gender	6.75		0.70
	Recreational activity * Gender	0.91		0.10
Instrumental	Recreational Activity	48.05		4.62**
	Gender	48.05		4.62**
	Recreational activity * Gender	20.57		1.98
Active	Recreational Activity	38.17		4.06**
	Gender	11.78		1.25
	Recreational activity * Gender	10.18		1.08
Denial	Recreational Activity	11.05		1.64
	Gender	10.87		1.62
	Recreational activity * Gender	16.85		2.50
Religious	Recreational Activity	34.44		2.12
	Gender	11.87		0.73
	Recreational activity * Gender	0.57		0.04
Humour	Recreational Activity	3.30		0.49
	Gender	3.02		0.44
	Recreational activity * Gender	0.00		0.00
Behavioural Dis- engagement	Recreational Activity	18.44		2.51
	Gender	11.05		1.50
	Recreational activity * Gender	40.53		5.51**
Restraint	Recreational Activity	48.99		7.01**
	Gender	8.77		1.26
	Recreational activity * Gender	6.40		0.92
Emotional Support	Recreational Activity	9.75		0.91
	Gender	4.87		0.45
	Recreational activity * Gender	0.05		0.00
Substance Dependence	Recreational Activity	0.40		0.12
	Gender	0.40		0.12
	Recreational activity * Gender	0.67		0.20

Acceptance	Recreational Activity	69.19		7.95**
	Gender	8.93		1.03
	Recreational activity * Gender	0.53		0.06
Suppression	Recreational Activity	43.85		5.78**
	Gender	3.16		0.42
	Recreational activity * Gender	7.54		0.99
Planning	Recreational Activity	53.02		5.74**
	Gender	33.97		3.67*
	Recreational activity * Gender	43.67		4.72**

Table 4

Two way analysis of variance showing the effect of recreational activity, gender, and their interaction effect on geriatric depression and death anxiety and its subdomains of male and female senior citizens

Domain	Source	SS	df	F
Geriatric Depression	Recreational Activity	161.09	1	11.36**
	Gender	36.85		11.36
	Recreational activity * Gender	98.40		6.94**
Death Anxiety	Recreational Activity	130.27		4.67**
	Gender	96.01		3.44
	Recreational activity * Gender	85.75		3.07
Fear of Unknown	Recreational Activity	11.87		2.52
	Gender	18.09		3.83*
	Recreational activity * Gender	10.09		2.14
Fear of Suffering	Recreational Activity	4.99		2.02
	Gender	1.21		0.49
	Recreational activity * Gender	0.69		0.28
Fear of Loneliness	Recreational Activity	7.61		5.42**
	Gender	6.75		4.81**
	Recreational activity * Gender	5.81		4.13**
Fear of Personal Extinction	Recreational Activity	5.42		5.02**
	Gender	1.85		1.71
	Recreational activity * Gender	1.50		1.39

Table 5
Intercorrelations Between Domains of ATS and Domains of COPE

	HS	SC	SG	PG	MD	Fo	IC	AC	Den	Reli	Hum	BD	Res	ES	Sub	Acc	Sup	Pl
HS	1	.419**	.323**	.011	-.120	-.091	-.006	.163*	.091	.053	-.014	-.205**	-.053	-.029	-.010	-.084	.089	.096
SC	.419**	1	.556**	-.183**	.066	.187*	-.075	-.052	.084	.155*	.090	.135	-.205**	.008	.008	-.032	.038	-.098
SG	.323**	.556**	1	-.158*	-.053	.182*	-.071	.005	.181*	.207**	.024	.159*	-.123	.122	.027	-.045	.020	-.091

Table 6
Intercorrelations AmongstCOPE, GDS, DAQ

	PG	MD	Fo	Ins	AC	Den	Rlg	Hmr	BD	Res	ES	Subs	Acpt	Sup	Plan	GDS	DAQ	HK	Fs	FI	Fpe
PG	1	0.15*	0.04	0.47**	0.63**	0.01	0.20**	0.00	-0.18*	0.57**	0.18*	-0.23**	0.49**	0.47**	0.65**	-0.43**	-0.28**	-0.19*	-0.20**	-0.28**	-0.26**
MD	0.15*	1	0.34**	0.15	0.08	0.33**	0.15	0.27**	0.27**	0.13	0.24**	0.13	0.30**	0.28**	0.07	0.09	0.22**	0.22**	0.20*	0.08	0.07
Fo	0.04	0.34**	1	0.34**	0.12	0.17*	0.28**	0.13	0.33**	0.08	0.52**	0.08	0.30**	0.24**	0.04	0.18*	0.32**	0.29**	0.30**	0.20**	0.12
Ins	0.47**	0.15	0.34**	1	0.50**	0.04	0.28**	0.05	-0.15*	0.34**	0.66**	-0.06	0.34**	0.38**	0.47**	-0.36**	-0.08	0.04	-0.02	-0.19*	-0.21**
AC	0.63**	0.08	0.12	0.50**	1	-0.01	0.11	0.12	-0.21**	0.46**	0.27**	-0.14	0.41**	0.61**	0.79**	-0.27**	-0.16*	-0.14	-0.11	-0.10	-0.17*
Den	0.01	0.33**	0.17*	0.04	-0.01	1	0.21**	0.27**	0.37**	0.02	0.19*	0.23**	0.18*	0.20**	-0.08	0.09	0.06	0.00	-0.03	0.06	0.22**
Rlg	0.20**	0.15	0.28**	0.28**	0.11	0.21**	1	0.04	0.14	0.21**	0.34**	-0.01	0.22**	0.19*	0.13	0.04	0.14	0.18*	0.09	0.05	0.04
Hmr	0.00	0.27**	0.13	0.05	0.12	0.27**	0.04	1	0.28**	0.13	0.26**	0.33**	0.05	0.21**	0.05	-0.03	0.13	0.09	0.08	0.08	0.19*
BD	-0.18*	0.27**	0.33**	-0.15*	-0.21**	0.37**	0.14	0.28**	1	-0.08	0.23**	0.25**	0.19*	-0.01	-0.21**	0.36**	0.20**	0.16*	0.12	0.17*	0.25**
Res	0.57**	0.13	0.08	0.34**	0.45**	0.02	0.21**	0.13	-0.08	1	0.18*	-0.08	0.40**	0.48**	0.56**	-0.22**	-0.13	-0.16*	-0.06	-0.12	-0.15
ES	0.18*	0.24**	0.52**	0.66**	0.26**	0.19*	0.34**	0.26**	0.23**	0.18*	1	0.07	0.36**	0.26**	0.16*	-0.08	0.13	0.19*	0.10	-0.03	0.01
Subs	-0.23**	0.13	0.08	-0.06	-0.14	0.23**	-0.01	0.33**	0.25**	-0.08	0.07	1	-0.08	-0.03	-0.15	0.16*	0.05	0.04	0.02	0.01	0.15*

Table 7
Intercorrelations matrix for ATS, GDS and DAQ

	HS	SC	SG	GDS	DAQ	F un	F su	F lon	F per
HS	1	.419**	.323**	-.013	-.017	0.18	-0.01	0.73	-0.12
SC	.419**	1	.556**	.162*	.229**	0.27	0.94	0.20	0.13
SG	.323**	.556**	1	.223**	.242**	0.28	0.09	0.27	0.10
GDS	-.013	.162*	.223**	1	.388**	0.33	0.28	0.29	0.34
DAQ	-.017	.229**	.242**	.388**	1	0.87	0.79	0.69	0.65
F un	0.18	0.265**	0.278**	.328**	.869**	1	0.60**	0.45**	0.45**
F su	-.006	0.94	.097	.271**	.789**	0.60**	1	0.43**	0.32**
F lon	.073	.201**	.270**	.295**	.694**	0.45**	0.43**	1	0.45**
F Per	-.115	.133	.101	.338**	.645**	0.45**	0.32**	0.45**	1

Table 8
Regression models with domains of Attitude towards self as the predictors

Predictor	Criterion	R Square	Adjusted R Square	F
High Standards	Active coping	0.03	0.02	4.56*
	Behavior Disengagement	0.04	0.04	7.27**
Self-criticism	Positive Growth	0.03	0.03	5.72*
	Focus	0.04	0.03	6.03*
	Religious	0.02	0.02	4.07**
	Restraint	0.04	0.04	7.30**
	Funknown	0.07	0.07	12.54**
	Floneliness	0.04	0.04	7.01**
Self-Generalisation	Positive Growth	0.03	0.02	4.25**
	GDS	0.05	0.04	8.67**
	DAQ	0.06	0.05	10.29**
	Funknown	0.08	0.07	13.87**
	Floneliness	0.07	0.07	13.09**

Discussion

Engaging in recreational activities naturally helps to reduce stress (Iwasaki & Mannell, 2000). For the main effect, a significant difference in coping strategies was observed based on recreational activity,

particularly in the domains of positive growth and reframing, instrumental coping, active coping, restraint, acceptance, suppression, and planning. Participants involved in active recreational activities were found to employ all of these coping strategies. Participating in active recreational activities is inherently a positive coping mechanism (Kerr *et al.*, 2012). In this study, elderly individuals who participate in active recreational activities have adopted a wide range of adaptive coping strategies. These activities, which include social (visiting friends, community service), spiritual (meditation), physical (walking, yoga), and creative pursuits (artwork, music, photography), not only provide pleasure and enjoyment but also empower participants to handle various life situations. Engaging in these activities enhances their self-esteem and strengthens their ability to cope with life's challenges (Goodman *et al.*, 2017; Kamioka *et al.*, 2013).

For instance, if an elderly individual engages in leisurely activities, they may be less overwhelmed by life's challenges and more inclined to focus on positive aspects during stressful times, finding meaning even in adversity (positive growth and reframing). Participating in social recreational activities, such as meeting with friends, can provide opportunities to discuss problems and seek advice (instrumental support). Additionally, recreational activities, when approached systematically and with structure, can help individuals plan and manage situations more effectively (active coping, restraint, and planning).

Regarding the main effect, a significant difference was observed in coping strategies based on gender, specifically in the domains of positive growth and reframing, instrumental coping, and planning. Previous research supports this, showing that males often prefer problem-focused coping strategies over females when managing stressful situations (Endler & Parker, 1990; Kelly *et al.*, 2008). In our society, men tend to be more outgoing and have greater social support, which may lead them to seek instrumental assistance, such as asking others for help. Planning, another problem-focused coping strategy, is also more frequently utilized by males, indicating their tendency to develop systematic approaches and strategies for addressing challenges. These coping styles suggest that males perceive

stressful situations as challenges to be actively managed (Carver *et al.*, 1989).

In this study, males engaged more in positive reframing, an emotion-focused coping strategy where stress is viewed more constructively and positively. Many studies suggest that women are generally more inclined to use emotion-focused coping strategies. However, in this study, it was observed that males also engage in emotion-focused coping and do so more than females, as evidenced by their higher mean scores in the positive reframing domain. This indicates that while males are known for their preference for problem-focused coping, they also utilize emotion-focused strategies, such as positive reframing, to a significant extent, demonstrating a broader range of coping mechanisms than traditionally assumed.

The results indicated a significant interaction between gender and type of recreational activity (active and passive) in the coping domains of behavioral disengagement and planning. Behavioral disengagement refers to the tendency to give up on solving a problem or coping with stress. This study observed that females involved in passive recreational activities had higher scores in behavioral disengagement than those who engaged in active recreational activities. Conversely, males who participated in passive recreational activities reported lower levels of behavioral disengagement than their female counterparts in similar activities. This finding implies that females who are less actively engaged in leisure activities may view challenges as overwhelming, causing them to give up more quickly and avoid using their mental resources to cope with and resolve stress. Selecting strategies that involve avoiding the problem or giving up on finding a solution often stems from the belief that one cannot effectively manage the issues, particularly when faced with unexpected challenges (Abramson & Seligman, 1978; Zalta & Chambless, 2008). Research has shown that women may experience a reduced sense of mastery, meaning they feel less capable of controlling unforeseen events. This may be because women often encounter more stressful situations than men, such as difficulties related to daily responsibilities, relationship problems, and experiences of abuse or trauma (Breslau & Anthony, 2007).

There was a significant difference in geriatric depression based on the type of recreational activity elderly individuals participated in, with those involved in passive recreational activities scoring higher on geriatric depression. Elderly individuals who are less engaged in various activities and are in poorer physical health are at a greater risk of developing depression. The passive activities in this study, such as reading, watching television, and listening to music, are often done in isolation. This isolation, along with reduced social interaction, can contribute to feelings of loneliness, which is another key factor linked to depression (Kaushik & Panshikar, 2024). Participating in self-focused recreational activities, such as those mentioned, rather than in social, recreational activities, may be one of the reasons why passive recreational activities were associated with higher depression scores compared to active ones (Goodman et al., 2016). After retirement, the absence of a structured schedule and routine leads to a lack of clear boundaries for when to engage in self-focused activities (McKee-Ryan *et al.*, 2005). As a result, once seen as desirable, passive recreational activities lose significance due to this lack of structure, ultimately reducing the sense of pleasure and diminishing the desire to participate (Hopko *et al.*, 2003).

A significant difference in death anxiety was observed based on the type of recreational activity, with elderly individuals engaging in passive activities reporting higher levels of death anxiety. Additionally, for specific domains of death anxiety, such as fear of loneliness and fear of personal extinction, those involved in passive recreational activities scored higher compared to those participating in active activities. Death, though an inevitable reality, often provokes feelings of anxiety. Death anxiety refers to the sense of fear, dread, unease, and apprehension that arises when individuals contemplate death or the dying process. (Farley, 2014). It has been observed that people with higher social support have less death anxiety compared to people not having that (Azaiza *et al.*, 2010). This study also highlights that engaging in active recreational activities can increase social interaction, which in turn helps alleviate the fear of loneliness, a familiar feeling associated with death. Elderly individuals are often prone to

experiencing a sense of loss as they witness many of their loved ones passing away. This can trigger feelings of personal loss and activate schemas of mortality within themselves, intensifying death anxiety (Florian, 1983). However, engaging in active recreational activities can help alleviate this sense of loss. Active participation in social and physical activities fosters connection, purpose, and engagement, which can distract from thoughts of death and loss, providing a sense of fulfillment and reducing anxiety related to mortality (Azaiza *et al.*, 2010). Engaging in active recreational activities fosters a sense of goal-directed behavior, reflecting a desire to survive, which ultimately reduces death anxiety (Fortner & Neimeyer, 1999).

In the fear of the unknown domain, a significant gender difference was observed, with females scoring higher than males. Fear of the unknown regarding death refers to uncertainty about what happens after death and is often linked to existential questions about morality and immortality. Death represents a finality, and the unknown nature of what follows can be especially concerning for those who feel unfulfilled or that they have not achieved their life's purpose. Research suggests that women tend to be more extrinsically religious than men. In this study, female elderly participants also scored higher in the religious coping subscale of the COPE scale than males. While religiosity can act as a coping mechanism, it can also heighten the fear of the unknown, as individuals may worry about how God will judge their actions in the after life (Kraft *et al.*, 1987; Cicirelli, 2002; Azaiza *et al.*, 2010; Abdel-Khalek & Lester, 2009; Fortuin *et al.*, 2019).

In the fear of loneliness subscale, significant main effects were found for gender, type of activity, and a significant interaction effect. Females scored higher than males, and those involved in active recreational activities had lower scores than those in passive activities. Male participants in both active and passive groups experienced lower death anxiety than their female counterparts. This may be attributed to the fact that men often derive more social roles and motivation from their work compared to women, a pattern that continues after retirement, as men are more likely to engage in volunteer work with former colleagues than women (Janzen & Muhajarine, 2003; Morrow-Howell, 2010). Research has shown that males tend to be more social

than females, and this social inclination extends to their life experiences and attitudes toward death (Lederman, 2024). Even in the face of death, a sense of community and companionship can help reduce the fear of loneliness (De Campos-Rudinsky, 2022). This is especially true for active recreational activities that provide a sense of purpose and increase social interaction. There is also a connection between caring for activities and caring for others. When individuals invest in activities, they develop a sense of care, which enhances their well-being (Elias, 2001). Conversely, those involved in passive recreational activities may feel disconnected, believing that their lack of engagement means others do not care for them. This can heighten their fear of loneliness in death (Lederman, 2024). This pattern also holds for the fear of personal extinction subscale, where individuals involved in passive recreational activities scored higher. Maintaining strong connections with others helps lessen concerns about being forgotten after death, reducing the fear of personal extinction (Rezapour, 2022). Engaging in active recreational activities helps individuals create meaning in their lives. Meaning involves a blend of connection, understanding, and interpretation that enhances our awareness of existence. It also reinforces the sense that our lives hold significance and value (Akin, 2015; Yukay Yüksel *et al.*, 2017). Thus, even after physical death, individuals may feel a sense of continued existence through the lasting impact of the meaning they have created.

The correlation analysis also revealed a positive relationship between high standards and active coping high standards, with regression analysis showing high standards as a predictor of active coping. There was also a negative correlation between high standards and behavioral disengagement, with regression analysis showing high standards as a predictor of behavioral disengagement. Active coping involves investing effort into building general resources that proactively aid in goal achievement and personal success (Greenglass, 2002). However, the tendency to uphold high standards across various aspects of life may lead to consistently proactive efforts, which can sometimes have a negative impact, as it may foster an overly critical attitude toward one's efforts (Carver *et al.*, 1988; Frost *et al.*, 1990; Pyryt, 2007). Since they exhibit a strong tendency for active coping, it is unlikely

that they will disengage from their work, as behavioral disengagement involves giving up on finding a solution to a problem. Self-criticism emerged as a predictor for several coping strategies, including positive growth and reinterpretation, focusing on and venting emotions, turning to religion, and restraint. Self-criticism has been found to have a significant negative correlation with positive growth and restraint, indicating that excessive self-critical attitudes can impede adaptive coping and negatively impact well-being. Additionally, self-criticism was found to predict fear of the unknown and fear of loneliness, key dimensions of death anxiety, indicating its broader influence on emotional and psychological responses. Similarly, self-generalization was identified as a predictor for positive growth, depression, fear of the unknown, and fear of loneliness. A significant negative correlation was observed between self-generalization and positive growth, suggesting that overgeneralizing failures may hinder an individual's capacity to adopt a growth-oriented perspective in stressful situations.

Conclusion

This study highlights the complex relationship between recreational activity types, gender, and various psychological factors such as attitude towards self, depression, anxiety, and coping strategies in the elderly. Findings indicate that engaging in active recreational activities has significant psychosocial benefits, reducing death anxiety and depressive symptoms while enhancing adaptive coping mechanisms. These results underscore the importance of promoting active leisure activities among older adults to support their mental well-being and reduce the adverse effects of loneliness and isolation. Encouraging participation in meaningful and socially engaging activities can give elderly individuals a renewed sense of purpose, ultimately contributing to their overall quality of life. This research adds to understanding how specific recreational practices can influence mental health outcomes in later life, offering practical implications for designing community programs that foster well-being in aging populations.

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Navigating the Experiences of Grandparents raising Grandchildren in Sutnga, East Jaintia hills, Meghalaya

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ABSTRACT

This exploratory study aimed to investigate 30 grandparents 'ages, varying from 45 to 75 years, experiences providing primary care for their grandchildren. Open-ended questions were used in focus groups and interviews to acquire qualitative data. It was found that most of the grandparents involved in raising and caring for grandchildren due to the parents of grandchildren working (87%), 7 of the children's parents passed away, 3 of the children were abandoned by their parents, and 3 of the children's parents were unable to support them. The study revealed intriguing findings, whereby grandparents shared more suitable rather than unpleasant experiences. Rather than seeing being carers as a burden, grandparents expressed how their role in providing care has not just improved their mental health but also brought them joy, happiness, and pleasure, offering a reassuring and hopeful perspective on the challenges of caregiving. Many mentioned how their deep relationships with and affection for their grandchildren enhanced their sense of purpose and happiness in life.

Conflict resolution and relationship building are crucial to preserving positive grandparent-grandchild interactions (Davis, 2017). It is also imperative to establish opportunities for grandparents to enhance their quality of life by acknowledging and addressing the issues they experience, including financial hardship, emotional stress, and physical demands. This underscores the need for robust support systems for these unsung heroes, and your support is crucial in this endeavor.

Keywords : Grandparents, Grandchildren, Care-giving Responsibility, Positive influence of being carer.

Grandparents are unique in the family dynamic since they are frequently a source of knowledge, direction, and unwavering love. The emotional and social growth of the younger generation can be significantly impacted by their engagement in their grandchildren's lives. According to studies, kids with close ties with their grandparents typically have more stable emotional states and vital social skills. Children with active grandparents involved in their lives have higher levels of emotional resilience (Pulgaron *et al.*, 2016). Further evidence is provided that grandparents frequently offer vital assistance during stressful periods in the family (Grinstead *et al.*, 2003). This helps to create a more stable and caring environment for their grandkids.

Grandchildren create a strong intergenerational link that benefits both parties, frequently bringing their grandparents enormous delight and renewed vitality. The bond between grandparents and their grandchildren is unique and deeply marked by understanding, support, and affection for one another, fostering a sense of connection and empathy among us all. According to research, strong interactions between grandparents and their grandchildren are associated with greater emotional and social development. These kids frequently have more social competence and emotional stability (Dunifon & Bajracharya, 2012).

Even though it might be difficult at times, taking on this critical task as a carer can have many advantages for the person doing it. Carers often report feeling a strong sense of purpose and fulfilment

from serving others, which can improve their mental health and a general sense of well-being. Brown *et al.* (2009) found that carers frequently strengthen their links with the people they seek, resulting in more meaningful interactions and emotional connections. Furthermore, people often pick up new abilities and coping mechanisms when providing care. Roth *et al.* (2013) *emphasise* how caring may promote resilience and personal growth. By connecting with people going through similar experiences, taking on caregiving obligations may help foster a feeling of community and support (Schulz & Eden, 2016). Literature across the globe strongly signifies the impact of grandparenting, and its meaning varies significantly across countries and cultures, for instance, in terms of how grandmothers are involved in their grandchildren's lives (Dolbin-MacNab & Yancura, 2018). Therefore, the present study aimed to explore whether grandparenting of grandkids impacts grandparents' well-being.

Method

An exploratory qualitative study was conducted to delve into the experiences of grandparents who were the primary caregivers for their grandchildren in Sutnga village, East Jaintia Hills District, Meghalaya. This region is known for its unique family dynamics and strong community ties, which may have influenced the grandparents' experiences in this study. The respondents, either grandmothers or grandfathers, were purposively selected within the age range of 45 to 75 years, and each had at least one or two biological grandchildren under 18 years old. A total of 30 grandparents caring for their grandchildren were included in the study, with 27 (90 %) being grandmothers and 3 (10%) being grandfathers. The main reasons for grandparents taking on the caregiving role were that the parents were working (87%), 7 per cent of the parents had passed away, their parents had abandoned 3 per cent and 3 per cent were those whose parents could not support them.

Tool Used

The researchers developed a semi-structured open-ended questionnaire. In-depth information about grandmothers' experiences

caring for their grandchildren was gathered through interviews and focus group discussions. The grandparents were interviewed individually, and the interactions were audio recorded using a tape recorder. The questions were focused on caregiving practices and grand parents experiences raising grandkids.

Thematic analysis was employed to analyse the patterns of rich data. Initially, all records were transcribed and then read and coded by the researcher. Meaningful expressions were examined and identified in the coding process, and connections between them were established, which resulted in the main themes: (i) Happiness and contentment, (ii) Engagement and Bonding, (iii) Closeness and Connection, and (iv) Love and Support.

Findings

Happy and contentment

Many grandparents in our study expressed a profound sense of fulfilment, happiness, and purpose in raising their grandchildren. Their experiences as grandparents were not just filled with joy but also a deep understanding of purpose, capturing the essence of their caregiving journey and inspiring us all with their resilience and dedication.

“It is a pleasure raising my grandchildren because it has brought immense joy and purpose to my life.” (R1/female/68years)

“I find pleasure in it as I consider it a blessing to be able to look after them and participate in their day-to-day activities.” (R6/female/57years)

“It is a pleasure because they gave me a second chance at parenting.” (In-depth interview/ respondent 10/female/60years)

Engagement and Bonding

Having loving grandchildren allows grandparents to feel more emotionally connected to their grandchildren, strengthening their bond and improving their relationship. Grandparents shared their happiness at being with their grandchildren by saying the following:

“It was a pleasure for me because I like spending time with my grandchildren and watching them grow.” (R3/Female/73years)

“For me, it is a pleasure because their laughter and energy bring so much happiness into my home.” (R7/Female/70years)

"It was a pleasure because I cherish the moments we spend together and the memories we create." (R8/Female/57years)

"For me, it is a pleasure because they keep me engaged and prevent me from feeling lonely." (R9/Female/67years)

"Playing and reading with my grandchildren bring me a lot of joy and happiness." (R 2/ Female/ 57years)

"Watching my grandchildren grow and learn gives me purpose." (R30/ Female/ 65years)

Closeness and Connection

Many grandparents reported that their relationships with their grandchildren are closed and connected. This depicts the strong bonds and emotional intimacy that grandparents develop by caring for their grandkids.

"I feel extremely close and connected with my grandchildren." (R1/Female/68years)

"I feel a strong bond with my grandchildren. We understand each other well." (R.8/Female/57years)

"I feel that our relationship is growing stronger each passing day." (R11/Female/56years)

Love and Support

Taking care of grandchildren has dramatically bolstered the bonds between grandparents and grandchildren. Most grandparents have mentioned the benefits of having grandchildren; they see it as more of an asset than a liability. Love and support enhance good relationships, where trust, love, and affection arise.

"The relationship we have is very loving and supporting." (R2/Female/57years)

"Our relationship is built with trust and love." (R20/Female/ 53years)

"Our relationship is full of love and affection." (R28/Female/ 69years)

"The relationship with my grandchildren is a powerful and supportive relationship." (R30/Female/60years)

Discussion

Examining the experiences, the study found that most grandparents talked about more positive than unpleasant ones. The grandparents said that raising grandchildren gave them great satisfaction and purpose in life. Similarly, Caregiving responsibilities provide grandparents with a fresh feeling of purpose and joy in life, and many describe genuine delight and fulfilment resulting from these tasks (Smith, 2021).

Another significant benefit of providing care is their interaction and bonding with the grandkids. Daily encounters and emotional connections established via caring activities can also improve happiness and reduce loneliness (Jones, 2020). According to a grandmother, “It is enjoyable for me because their energy and laughter fill my home with so much joy” (Jones, 2020). Another grandmother stressed the significance of savouring the present and making enduring memories with their grandkids (Smith, 2021).

Closeness, understanding, and deep emotional ties are characteristics of grandparents’ interactions with grandchildren (Johnson, 2019). Grandparents are not alone in feeling strongly linked to their grandchildren. Love and support are frequently given in return for this closeness, which improves both people’s emotional health (Brown, 2018).

Highlighting the benefits of having grandchildren for grandparents demonstrated the value of love, support, and connection—all of which serve as coping mechanisms for grandparents to preserve their general well-being and quality of life. Furthermore, spending time with their grandkids via play and educational activities makes them happy and strengthens their feeling of purpose and ability to contribute to their development (Smith, 2021).

Relationship building and conflict resolution are essential for positive grandparent-grandchild relationships (Davis, 2017). A happy family resonates with positive relations among family members, which resolve disputes and build trust. Open communication, tolerance, and respect for one another are essential (Jones, 2020). To preserve happy relationships, grandparents frequently stress the value of having candid conversations and respecting one another’s viewpoints (Brown, 2018).

Conclusion and Recommendations

This study highlights the positive influence of grandparents in caring for grandchildren. Despite the difficulties of being a career, grandparents frequently feel great satisfaction, joy, and purpose in their responsibilities. The grandparents have reported extraordinary experiences that include emotions of involvement, pleasure, and contentment. These positive experiences result from their strong relationships and love for their grandkids. These connections support the grandparents' mental health and the kids' emotional stability and social skills.

Taking part in daily activities, social engagement, and being involved in their grandchildren's lives are just a few of the coping mechanisms grandparents may use to keep their mental health at pace. However, the study opens the scope for researchers to reveal other aspects of the need to understand the journey of ageing and its associated factors that influence a better quality of life.

According to this study, grandparents who are their grandkids' primary carers may significantly improve their well-being and the standard of care they offer. By acknowledging and addressing the variety of issues they experience, including financial hardship, emotional stress, and physical demands, focused treatments and policies that support resilience and enhance the mental health of grandparent carers can be established.

Policymakers and community organisations may help create a more loving and supportive environment for these families by establishing support networks, financial aid, educational initiatives, and mental health services catered to the requirements of grandparent carers. This may result in better outcomes for grandparents and grandchildren, strengthening intergenerational ties and enhancing the stability and health of the community.

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Group support sessions for people with Parkinson's disease and caregivers dealing with bereavement(grief)- insights and observations

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ABSTRACT

This study was an attempt to reach out and provide support to the bereaved family members who lost their beloved family member and their inability to cope with the loss during the period of the second wave of the pandemic. This period was particularly challenging for People with Parkinson's (PwPs) and their caregivers. Sixty-four participants(PwPs and caregivers) who had lost a loved one during this period were selected using a convenient sampling technique. These 64 participants were given six online sessions on the Zoom platform to handle their grief. The sessions aimed to help the participants identify their emotions and cope with the grief process with acceptance. After a year, feedback on the session was also gathered by sending out Google forms on all the WhatsApp groups. The thematic analyses of the content elicited in the sessions revealed four main common concerns: distress, an unusual

process for the last rites, recalling the lives of loved ones, and positive expression. Feedback posts a year after suggested that participants found the sessions beneficial, highlighting the positive impact of these support sessions. Based on these findings, it may be concluded that the responses gathered show the benefits of the psychological assistance provided through these group sessions. The findings depict the need to study its therapeutic value for better understanding and implementation of future support groups for grief. The urgency for further research in this area is evident, and your continued work in this field is crucial. We encourage the academic community to contribute to this important field of research, as further studies can help us better understand and implement effective support groups for grief among PwPs and their caregivers.

Keywords : People with Parkinson's, Caregivers, Grief, Psychological assistance, Online sessions

The unprecedented environment created by COVID-19 prompted various changes and issues globally. The World Health Organization (WHO) has highlighted how adverse effects of the pandemic situation, i.e., fear, loss of jobs, bereavement, etc., have also exacerbated issues related to mental health (WHO, 2020). Research has also shown its effects leading to a high mental health burden, especially amongst caregivers, including health care professionals, as well as the general public - children, adolescents, and the elderly in particular, highlighting it to be an emerging critical public health issue that requires urgent solutions. (Shah *et al.*, 2020; Phiri *et al.*, 2021)

Throughout model of care, our organisation has been conducting support groups for people with Parkinson's (PwPs) and their caregivers (CGs). Parkinson's disease (PD) is a progressive brain disorder characterised by uncontrollable motor deficits, e.g., tremors, stiffness, bradykinesia, dyskinesia, etc. Along with the motor symptoms, PwPs

also experience non-motor symptoms, which include an array of conditions, e.g., anxiety, depression, cognition impairment, delusions, speech difficulties, sleep issues, etc. According to Suzuki *et al.*, (2021), substantial concerns about COVID-19 were reported by 47.0 per cent of caregivers and 50.0 per cent of PD patients. Patients reported increased gait disturbances along with psychological and emotional issues, i.e., anxiety and depression, whereas, for caregivers, depression, stress, and worsening patient mood were prominent (Suzuki *et al.*, 2021). Similar concerns were expressed by PwPs and CG (caregivers) members of the organisation. As COVID-19 evolved, our organisation has proactively addressed various physical and psychological challenges expressed by PwPs and CGs about the fears and the changes one had to adjust to because of the pandemic.

As the pandemic reached the second wave, it also became the leading cause of death and other natural causes (Yusen & Xue, 2020). It was during this period that there were reports of members of our organisation losing a family member and their difficulties incoping with the loss. It is observed that the death of a family member usually causes emotional shock and trauma to the members of the family, who need to receive comprehensive emotional support from relatives and even society to adapt to their sense of loss (Mohammadi *et al.*, 2021). However, the protocols and the restrictions for the last rites with no family or relatives being allowed made it difficult for the family members to obtain support and required them to cope with their loss in isolation (Carret *et al.*, 2020; Fernandez & Gonzalez, 2020; Chen, 2022). The imposed restrictions hampered this support system of visitors, relatives, etc., which usually helps one express feelings through mourning. According to Nair and Banerjee (2020), there is a heterogeneity of grief in India; the grieving process may differ for different populations. A person with limited resources may identify grief and then pass through the stages of denial to acceptance (Nair & Banerjee, 2020; Kübler-Ross & Kessler, 2005). A person with adequate resources who is not directly affected but living through the lockdown may undergo grief, as Stroebe and Schut (2010) described in their ‘dual process model,’

where the person finds it difficult to understand the emotions faced. The person is 'lonely' and gradually moves to the restoration phase when trying to solve their problems through structuring (Nair & Banerjee, 2020). The elderly population also experiences additional anticipatory grief (Aldrich, 1974; Nair & Banerjee, 2020). For individuals with disabilities (physical and psychological), the disability interferes with the classical processing of grief (Nair & Banerjee, 2020). There are also cultural factors that impact grief processing. For instance, an article in a popular Indian newspaper states that it has been observed that Indians are 'Unprepared' to cope with the loss of someone. It is possible that cultural limitations further impose restrictions in talking about the loss openly as it is considered to be inauspicious, thereby making the process of acceptance and bereavement more difficult (Krishnan V in the Hindu, 2017).

Recognising the impact of losing someone during this pandemic, we organised special sessions for our members (PwPs and CGs) to help them cope with the bereavement process.

Method

Participants

The Grief sessions were held for the members of PDMDS who lost their loved ones during the COVID-19 pandemic. The majority of the people who had passed away were members of the PDMDS and people with Parkinson's between 60-80 years of age. The participants primarily included caregivers of people with Parkinson's who were spouses aged 60-80 years and their children or daughters-in-law aged 30-60 years. Additionally, four people with Parkinson's also attended these sessions as they were grieving the loss of their caregiver or a close family member. A total of 64 people participated in the various sessions held. The participants were selected using a convenient sampling technique, ensuring a diverse representation of the PwPs and caregivers within our organisation.

Initially, 86 members were contacted by the regular 23 support groups conducted across India. A total of 6 online sessions were

conducted for various centres. Most attendees were spouses, specifically ‘wives’ of the deceased, followed by children—specifically ‘sons’ of the deceased. Two of the participants were PwPs, who were spouses and had lost their caregivers. Many of the participants remained unidentified. Most participants hailed from various parts of Gujarat, followed by Maharashtra, Goa, and North East India. Table 1 describes the demographic details of the participants.

Table 1

Demographic details of participants attending the group

Relation of attendees with deceased	Participants present in Numbers	Places/ Area	Numbers	Gender	Numbers
Wife	19(30%)	Gujarat	23(36%)	Male	19(30%)
Son	15(23%)	Mumbai	22(34%)	No Information	9(14%)
daughter in law-	9(14%)	Goa	5(8%)	Female	36(56%)
Daughter	8(13%)	Indore	4(6%)		
no info	8(13%)	Delhi	4(6%)		
Husband	4(6%)	N.East Assam	4(6%)		
Other- CG of worker	1(2%)	Pune	2(2%)		

The sessions aimed to reach out and support the organisation’s bereaved family members, including PwPs and CGs. Only members of the organisation who had recently (over 2 months) lost a loved one were included. Convenient sampling was used. The administration staff solicited consent and willingness to participate in the session through audio calls.

Session details

Two psychologists from the organisation, holding a Master’s degree in psychology, planned and implemented the session content,

which was then analysed and approved by two senior medical professionals.

Sessions were conducted online on the Zoom platform. Varied languages, i.e., Hindi/ English/ Marathi/ Gujarati, were incorporated as per the group requirement. The sessions were divided into groups according to language preference. A WhatsApp group was formed for every scheduled session, and the Zoom link was shared. Participants were assured confidentiality, and verbal consent was obtained during the session. Participants were allowed to switch their cameras off wherever they felt uncomfortable. All sessions lasted for more than an hour.

Each session started with a general explanation of the aim of organising these sessions- helping the participants identify the psychological and physiological effects of a reaction to grief. Facilitators began the session by offering an open platform for participants to express their emotions by asking them, “So I would like to begin the session by asking you, what is it that you felt or feel when you think about losing your loved ones?” This was followed by taking them through the Kubler-Ross and Kessler 5 stages of grief model (2005). Their initial responses were also discussed by correlating them to the stages of grief. The session also included an activity to help participants identify their emotions. It also assisted them in identifying and cherishing good memories, which made them feel happy and let go of memories that caused discomfort. Facilitators used counselling skills such as unconditional acceptance, active listening, clarification, a reflection of feelings, and validation to encourage expression and discussion amongst the participants (Sun *et al.*, 2020). Specific tips and suggestions were also shared with the participants. The session concluded with a relaxation activity followed by a reminder that grief is a process and that people should give themselves time to live through it rather than get involved. Participants were also encouraged not to ignore their physical health. They were also informed to contact the organisation if they wanted to speak to someone.

Data Records

One of the researchers made a verbatim note of all the participants' responses and comments during the session. In addition to these records, feedback on the session was gathered by sending out Google forms on all the WhatsApp groups. The team also tried to call participants and elicited verbal feedback. Data records and feedback were anonymised.

Results

Themes elicited during the sessions

Thematic analyses of the content elicited in the sessions revealed four main common concerns: emotional distress, an unusual process for the last rites, recalling the lives of loved ones, and positive expression.

Feedback

Eight participants filled out feedback forms, and four were interviewed for their feedback. All the participants mentioned that the session was a great help, assisting them in identifying their feelings and thus helping them to manage the entire process better.

Discussion

Insights on the grieving process

These sessions provided insights into the way the caregivers processed their grief period, specifically during the unprecedented period of the pandemic. 4 major themes were identified:

A. Emotional distress

Various participants expressed the passing away of their loved one to be sudden and unexpected, coming as a shock. Participants also expressed feelings of anger, helplessness, guilt, and loneliness. Emotional shock was observed across all the sessions. Many bereaved participants spoke in detail about witnessing the progression of PD in their loved ones as a painful and long journey. They further expressed the difficulties faced during that period as well as the loneliness and void it created after their loved one passed away (Lennaerts-Kats *et al.*, 2020)

“I regret I did not do anything to save him. I had stopped his ayurvedic medication, and only after that did his PD progress. I am very guilty.”

“We did not even know he passed away; his last rites were done, and we were informed later. I do not know if I did the right thing by taking him to the hospital.”

“I am left alone; my son is abroad, and my daughter lives far away.”

B. Unusual process for the last rites

Many participants expressed their dissatisfaction with the COVID-19 protocols implemented concerning the rules and limitations to be followed for the last rites. They described that the experience of holding a funeral without support from family and relatives, which would have otherwise offered some consolation to the bereaved and helped them adapt, affected their ability to process grief. (MacLeod *et al.*, 2019, Russell & Russell, 2019, Mohammadi *et al.*, 2021). Additionally, the limited time set by the pandemic protocols and their loved one's sudden passing away left them feeling that the farewell was incomplete. The lack of research addressing this issue suggests that it could be unique to the pandemic and may need further exploration (Mohammadi *et al.*, 2021).

“I just want to remove the memories of those last 15 days, his hospital stay and the last rites.”

“It was a very uncomfortable situation Covid brought on us, the burial and last rites.”

C. Recalling the lives of loved ones

Many of the participants, especially caregivers of PwPs who passed away, gave elaborate descriptions of the progression of PD towards their end, which seemed to help with their grief processing. Reminiscing about the lives of their loved ones was a common thread that emerged in all the sessions.

D. Positive expression

Some participants reported that they had come to terms with losing their loved one. They expressed looking towards the future by implementing positive traits and following in their loved one's footsteps and also reported benefiting from a practical outlook.

"Did not have time for feelings. I am alone now. I controlled myself after 15 days. I engage in hobbies and write books."

"My husband and I had a pact that when one of us passes away, we will bid farewell without being negative about it, so I kept my promise and told him we will meet soon as planned."

"I keep myself busy and spend time with my grandchildren."

"I am content we could be with her(mother) till she breathed last, and we got the time to be prepared for it."

"I am focusing on continuing my father's legacy of teaching music, which has kept me going."

Facilitator observations

It was observed that participants in the smaller group either broke down or were more expressive verbally and emotionally than the groups with a higher number of participants. However, after the session, many participants were able to identify their negative emotions and pledged to focus more on their positive traits and cherish the good memories of the deceased.

Feedback

All responses gathered from the feedback mentioned the sessions to be beneficial. A few responses mentioned finding inspiration from others and how the session helped them move on. This is an important advantage offered by support group formats, where there is a sense of solidarity and the feeling that one is not dealing with such concerns alone.

One of the daughters of the deceased in her feedback mentioned the following:

"The session has helped me a lot. I heard about people who were left alone. One lady who was elderly and now alone was so positive that it helped me to think, if she can at this age, then why not me?"

Limitations

However, the limitations encountered need to be addressed. Attending a session to help go through grief was also culturally new for the community. Secondly, the study was short-lived because of the nature of the virus spreading and then its control and the end of the pandemic. It was not possible to have follow-up sessions with the same participants, which may have helped to consolidate social support and build on more aspects of grief processing.

Conclusion

While a number of these emotional expressions can be considered to be a part of the natural course of grief, expressions related to the last rites or the burial procedure can be solely associated with the unique pandemic protocols that were to be followed during the COVID situation (Mohammadi *et al.*, 2021). The data gathered through these sessions sheds light on the potential of psychological assistance provided through these group sessions when help was unexpected. Responses collected illustrate that the intervention provided for bereaved family members was helpful. However, there is a need to study its therapeutic value for better understanding and implementation in future support groups for bereavement.

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Spirituality and Social Support in the Later Stage of Life : Examining Disparities in Gender

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ABSTRACT

The purpose of the present study was to examine the gender differences in spirituality and social support; 200 elderly (100 males and 100 females), ages varying from 60 to 75 years, were selected by purposive sampling technique from various places in Varanasi and Chandauli district of Uttar Pradesh. The Spiritual Personality Inventory-Revised and Social Support Scale were used to collect data. Independent sample t-test indicated significant gender differences between male and female elderly participants. It ensured that elderly female participants were higher on spirituality and its four dimensions: spiritual virtues, goodness, spiritual

services, and moral rectitude. In contrast, elderly male participants were found to have lower levels of spirituality. Still, they were found to have higher scores on two dimensions of spirituality, namely, positive outlook on life and spiritual discipline, than elderly female participants. Further, independent sample t-tests also reported significant gender differences between male and female elderly on the level of social support. In this direction, the results reported that scores of elderly male participants were higher on social support and its two dimensions: instrumental and informational support. In contrast, elderly female participants were found to have lower levels of social support but higher scores on one dimension of social support, namely emotional support, compared to elderly male participants. These findings are discussed under various theories and approaches. However, it is essential to note that the study has certain limitations, such as the use of self-reported measures and the limited geographical scope, which may affect the generalizability of the findings.

Keywords : Ageing, Gender, Spirituality, Social Support

Spirituality, as a positive factor, played a vital role in the elderly population and in maintaining and recovering from illness (Pressman, 1990; Matthews *et al.*, 1998; Koenig *et al.*, 1999; Mackenzie *et al.*, 2000). It takes them away from negativity to positivity and fills new energy to live life happily and peacefully. At this phase, when older adults deviate from the purpose of life and genuine meaning, that time proves helpful in showing them a new path. Spirituality links the individual to that superpower that governs their life, others, the world, and one's self.

Spirituality is a pathway that provides peace, happiness, and inner upliftment in life that is beneficial for an individual's overall physical, social, and psychological well-being. Spiritual practices are directly

related to the realisation of ourselves, which shapes individual personality in a new manner. When a person is born, he is not familiar with reality and other aspects of life, but as he grows older, his awareness of the realities of life increases. This process involves many factors contributing to the person's overall development. However, when spirituality is included in individual life, their life goes in a new direction, leading them to self-actualisation. Then, an individual easily achieves new heights in life and overcomes trouble. They do not become overwhelmed in any situation (favourable or unfavourable). In this context, Husain *et al.* (2012) have described spirituality as a process that leads to mortality and upliftment while providing stability to a person's life. The personality of a spiritual person is stable and massive, like a mountain, which never gets shaken by a difficult life situation.

Recently, researchers' curiosity has also steadily increased in studies relevant to the spirituality and well-being of older adults and its beneficial effects on ageing. Benson (1997), Benn (2001), and Park (2007) are widely accepted as stating that spiritual beliefs and practices enhance people's overall well-being.

As a phenomenon, social support is studied across a wide range of disciplines, such as psychology, medicine, sociology, nursing, education, rehabilitation, public health, and social work. Over the last few decades, a large body of research has frequently shown the benefits of social support in every aspect of an individual's life. Furthermore, it also provides emotional support to individuals. It plays a vital role in critical periods/moments, such as the death of a spouse or someone important during old age and the problems associated with this period.

Society is important for human existence in a meaningful way and for improving their life. Social support from family, friends, and society is essential to their well-being. It has evolved from the term "Social ties" (Vaux & Harrison, 1985). Shumaker and Brownell (1984) defined social support as an exchange of resources between at least two individuals perceived as providers and the recipient, intended to enhance the well-being of the recipients. Thoits (2011) has said that

social support refers to positive exchanges with network members that help people stay healthy or cope with adverse events. Furthermore, social support is helpful in social interactions that make people feel better. It is help and comfort supported by a network of caring and interested people, with such support playing a key role in successful ageing (Antonucci, 1990; Antonucci & Akiyama, 1991). Social support has been conceptualised as structural integration into a social network of relationships as well as functional resources provided as a part of ongoing interpersonal relationships, and these two approaches seem to represent sociological and psychological perspectives, respectively (Cohen & Syme, 1985; House & Kahn, 1985; Barrera, 1986; Curtona, 1986).

Morano and Morano (2006) explained several components of a support system: the informal network, the semiformal support system and formal support. Family and friends provide informal support; semi-formal support refers to the support provided by neighbourhood organisations such as churches or senior citizens centres. Formal supports include financial (social security, supplemental social security) medical, social welfare agencies, and private fee-for-service providers.

Social support can be divided into four categories, and they are widely accepted by researchers' namely emotional support, informational support, instrumental support and companionship support (Wills, 1991; Langford, 1997; Slevin *et al.*, 1996; Taylor, 2011). Another distinction of social support is perceived and received support (Taylor, 2011; Barrera, 1986). Perceived support shows the recipient's subjective judgement of whether the provider will provide adequate support. In contrast, received support refers to the specific support actions (e.g. advice or reassurance) given by providers in times of need (Gurang, 2006).

Furthermore, Marjorie and Bennet (1980) categorised support systems as formal and informal. The formal support system is the support the government and other formal organisations provide in economic, health, education, and transportation entitlement. The informal support system provides daily companionship by friends and neighbours.

Formal and informal support systems have a significant role in promoting the mental and physical health of the elderly, thus ensuring their welfare.

Some other famous psychologists have also demonstrated different types of support, such as structural and functional support (Wills, 1998). Structural support refers to the number of recipients to which a person is connected within a social network, such as spouses, family members, friends and co-workers, social and religious groups, and membership in clubs and organisations all contribute to social integration (Lakey, 2011). Functional support refers to those interpersonal relationships that serve various functions in times of need, such as emotional, instrumental, informational, and companionship support (Unchino, 2004).

The study's objective was to examine gender differences in the level of spirituality (total and dimensions) and social support (total and dimensions) in male and female elderly people.

Method

Sample

200 elderly (100 males and 100 females) aged 60 to 75 years were selected by purposive sampling from various places in the Varanasi and Chandauli districts of Uttar Pradesh. Only those who were literate, belonged to urban areas, spoke the Hindi language, had no chronic illness, were willing to join the study, and could spare time for the study were included as the participants.

Tools used

1. Spiritual Personality Inventory-Revised (SPI-R)

The Spiritual Personality Inventory was developed by Husain and Anas in 2018. This self-report inventory is made up of 28 items, used to measure the spiritual personality of individuals on a 5-point Likert scale (viz., 1=Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree). No negative items are on the scale, so all items are positively worded. The scores obtained on the inventory vary from 28 to 140. Higher scores indicate a high level of spirituality, while lower scores indicate a low level. This scale measures spiritual

personality in six dimensions: virtues, positive outlook on life, spiritual disciplines, goodness, spiritual service, and moral rectitude. The SPIR is reported to have excellent Cronbach Alpha values for spiritual personality, which is .893. The scale's internal consistency is relatively high, which supports the scale's reliability (George & Mallery, 2003). The Cronbach Alpha for the factors was found to be 0.76, 0.70, 0.73, 0.67, 0.63, and 0.58, respectively. The scale has relatively high content validity (face and logical) and construct validity. Inter factorial validity of the scale is also very high and established.

2. Social Support Scale (SSS)

Social support was measured using the Social Support Scale (SSS), developed by Asthana and Verma (2005). This brief, easy-to-administer self-report questionnaire contains 35 items, of which 25 were positively and 10 were negatively worded. The responses were to be obtained in a 5-point format: strongly agree to strongly disagree. An individual score on the social support scale ranged between 31 and below to 69 and above, with higher scores indicating a high level of social support while lower scores indicating a low level of social support. The scale provides a total social support score with three dimensions of social support: Emotional Support, Informational Support and Instrumental Support. Test-Retest Reliability of the scale was found to be .81, indicating high scale reliability. Construct validity of the scale was determined by finding the coefficient of correlation between scores on SSS and P.G.I. Social Support Questionnaire (Nehra *et al.*, 1998). It was found to be .59, showing moderate validity.

Procedure :- Participants who served the purpose of this study were contacted from the cities above. Initially, the researcher obtained informed consent to participate in the study. To ensure an honest, correct, and sincere response, the necessary instructions and a brief description of the scales, along with the objectives and importance of the study, were brief to them. The demographic information was collected, and the related questionnaire was administered to them. After completing each questionnaire, the researcher thanked each participant for participating.

Statistical Analysis : To examine the hypotheses of the present study, the raw scores obtained on two scales were entered into the computer. The descriptive analysis and independent sample t-test were applied to determine older adults' spirituality, social support level, and gender differences between males and females. SPSS 20.0 was used for the present study.

Results

The study aimed to examine the gender differences between female and male older adults regarding spirituality and social support. After the participants responded, data were analysed, and the results are presented below.

Table 1

Mean (M), Standard Deviation (S.D.) and t value of male and female elderly on dimensions of spirituality

Dimensions of Spirituality	Sample	N	Mean	SD	t-value
Spiritual virtues	Male	100	22.30	1.931	
	Female	100	23.92	2.398	-5.262**
Positive outlook on life	Male	100	24.38	2.126	
	Female	100	23.04	2.169	4.412**
Spiritual discipline	Male	100	17.10	1.444	
	Female	100	15.93	1.635	5.407**
Goodness	Male	100	16.95	1.581	
	Female	100	17.72	1.760	-4.075**
Spiritual service	Male	100	16.60	1.486	
	Female	100	17.71	1.626	-5.255**
Moral rectitude	Male	100	16.66	1.472	
	Female	100	15.74	1.535	-5.411**

**p<0.01

The result presented in the table Shows participants' mean, S.D. and t-value scores on different dimensions of spirituality. It reveals that on the first dimension, viz. spiritual virtues, the female participants scored higher (M = 23.92, S.D. = 2.398 than the male participants

($M=22.30$, $S.D. =1.931$), $t_{(198)} = -5.262$, $p<0.01$. On the second dimension, viz. A positive outlook on life, the mean score of male participants was higher ($M=24.38$, $S.D. =2.126$) as compared to female participants ($M= 23.04$, $S.D. =2.169$), $t_{(198)} = 4.412$, $p<0.01$. On the third dimension, viz. spiritual discipline, the mean score of male participants was higher ($M=17.10$, $S.D. =1.444$) as compared to female participants ($M=15.93$, $S.D. =1.635$), $t_{(198)} = 5.407$, $p<0.01$. On the fourth dimension, viz. goodness, the mean score of female participants was higher ($M=17.84$, $S.D. =1.760$) as compared to male participants ($M=16.95$, $S.D. =1.581$), $t_{(198)} = -4.075$, $p<0.01$. On the fifth dimension, viz. spiritual services, the mean score of female participants was higher ($M=17.72$, $S.D. =1.626$) as compared to male participants ($M=16.62$, $S.D. =1.486$), $t_{(198)} = -5.255$, $p<0.01$. On the sixth dimension, viz. Moral rectitude, the mean score of female participants was higher ($M=17.71$, $S.D. =1.535$) as compared to male participants ($M=16.60$, $S.D. =1.472$), $t_{(198)} = -5.411$, $p<0.01$. Therefore, the obtained finding of the independent sample t-test showed significant gender differences between male and female participants as well as overall indicated that female participants scored higher on four dimensions of spirituality, viz. spiritual virtues, goodness, spiritual services and moral rectitude, than male participants. At the same time, male participants scored higher on two dimensions of spirituality, viz— a positive outlook on life and spiritual discipline.

Table 2

Mean (M), Standard Deviation (S.D.) and t value of male and female elderly on dimensions of Social support

Dimensions of social support	Sample	N	Mean	SD	t-value
Emotional support	Male	100	46.69	4.713	
	Female	100	47.90	6.139	-1.573**
Informational support	Male	100	19.72	2.374	
	Female	100	18.33	2.555	3.985**
Instrumental support	Male	100	43.91	4.093	
	Female	100	41.02	4.360	4.833**

** $p<0.01$

The result presented in Table 2 shows participants' mean, S.D. and t-value scores on different dimensions of social support. On the first dimension, viz. For emotional support, the mean score of female participants ($M=47.90$, $S.D.=6.139$) was higher as compared to male participants ($M=46.69$, $S.D.=4.713$), $t_{(198)} = -1.573$, $p<0.01$. On the second dimension, viz. For informational support, the mean score of male participants ($M=19.72$, $S.D.=2.374$) was higher as compared to female participants ($M=18.33$, $S.D.=2.555$), $t_{(198)} = 3.985$, $p<0.01$. On the third dimension, viz. For instrumental support, the mean score of male participants ($M=43.91$, $S.D.=4.093$) was higher as compared to female participants ($M=41.02$, $S.D.=4.360$), $t_{(198)} = 4.833$, $p<0.01$. Therefore, the findings of the independent sample t-test showed significant gender differences between male and female participants and indicated that male participants scored higher on two dimensions of social support, viz. informational support and instrumental support, than female participants. In contrast, female participants scored higher on one dimension of social support, e.g. emotional support, than male participants.

Discussion

The Present study aimed to determine the differences in spirituality and social support between elderly males and females. For this purpose, the researcher formulated hypotheses according to the objectives discussed below and the results and evidence obtained.

The hypothesis first proposed that "Spirituality would be higher among female and male elderly". Based on the hypothesis, the results of the independent sample t-test revealed significant gender differences between male and female elderly participants on spirituality as well as reported that scores of elderly female participants were higher on spirituality (Table-1) and its four dimensions namely spiritual virtues, goodness, spiritual services and moral rectitude as compare to elderly male participants (Table-1). In comparison, elderly male participants were found to have lower levels of spirituality (Table 1). However, they were found to have higher scores on two dimensions of spirituality,

namely a positive outlook on life and spiritual discipline, compared to elderly female participants (Table 1).

The findings were supported by a study by Singh & Bisht (2019), who assesses the differences between institutionalised (n=100) and non-institutionalized (n=100) male and female elderly on the level of spirituality and reported that elderly females (irrespective of institutionalisation) were found to have higher levels of spirituality as compared to elderly males.

In the same way, Jindal and Singh (2019) have tried to find out the effect of gender and work status on spirituality among 116 elderly male and female participants. Results showed a significant interaction effect of gender and work status on spirituality and reported that employed female elderly are more spiritual than the employed male elderly. Bailly *et al.*, (2018) also align with the present findings, which reported that older women score relatively higher when practising spirituality. The findings of the present study conform with earlier research studies of various researchers, namely Khan & Singh (2013), Joseph & Jayanthi (2013), which reported that females have more spiritual orientation than males.

On the other hand, the present study also revealed that elderly males were higher on two dimensions of spirituality, e.g. positive outlook on life and spiritual discipline; in this perspective, the reason could be their positive outlook towards life, level of education and their belief system that directs their life towards the search for a sense of meaning and purpose of life beyond the daily struggles and hassles associated with old age as compared to elderly female participants.

In this context, Rich (2012) said that the reason might be that women tend to focus more on emotional and relational connections while men may focus more on God's power and judgements when considering religion.

The results, taken as a whole, thus indicate that levels of spirituality are higher among female older adults than among male older adults, and there are significant gender differences between them. However,

the present study's findings support the first hypothesis, which is consistent with some earlier research on gender and spirituality.

Hypothesis second proposed that "Social support would be higher among male and female elderly". The current findings of the independent sample t-test reported significant gender differences between male and female elderly on social support as well as reported that scores of elderly male participants were higher on social support (Table-2) and its two dimensions, namely instrumental support and informational support, compared to elderly female participants (Table-2). In contrast, elderly female participants had lower social support levels (Table 2). However, they were found to have higher scores on one dimension of social support, namely emotional support, compared to elderly male participants (Table 2).

The present study's findings were supported by those of Mathur (2015), which investigated gender differences in the nature, direction, and trends of social support networks of retired elderly males and females. The researcher found significant changes in the nature, direction, and trends of social support after retirement and indicated that spousal support dominates the social support networks of the retired elderly.

Matud *et al.*, (2019) indicated gender and social support as important social determinants of health and life satisfaction among older people. They reported that elderly males scored higher than women in masculine/instrumental traits and life satisfaction, whereas elderly females scored higher in feminine/expressive traits.

The present study revealed that elderly males were higher on social support and its dimensions, instrumental and informational support. In contrast, elderly females were found to have lower social support but higher emotional support. Regarding this finding, Mathur's observations (2015) can be considered as the underlying reason for the complete lack of "self-reliance" or "a strong self-perception potentially to compensate for an unavailable traditional source of social support" among elderly women.

On the other hand, elderly males viewed themselves as important sources of strength and self-help rather than the traditional and expected social support systems and dependence on significant others. In addition, elderly males also found themselves as beneficial replacements for achieving emotional peace and salvation.

As a reason for a lower level of social support among elderly females, a compelling view of Kalyan (1998) about factors influencing social isolation can be taken here. He pointed out that the plight of older women is worse compared to that of older men due to a variety of factors such as physical, psychological and economic dependency (Bennet & Kingston, 1993; Thekkedath & Joseph, 2009; Srinivas & Vijayalakshmi, 2001), and notably, the lack of decision-making power. This lack of agency, coupled with impaired vision, hearing and mobility, physical fragility with several disorders, and a pervasive feeling of being unwanted, significantly contributes to the social isolation of elderly women. Shanghvi (1998) also stated that diminishing health, the death of a husband, family members living at a distance from one another, lack of awareness and access to legal provisions (Asharaf, 2005), high levels of illiteracy, lack of remunerative occupation, negligible awareness about legal and economic rights (Shah *et al.*, 1995), neglect by family members, feelings of insecurity, loss of dignity, maltreatment, and disrespect by the family (Snoeja, 2001) further exacerbate this issue, leading to a significant loss of social support networks for older women.

The results, taken as a whole, thus indicate that levels of social support are higher among male elderly than female elderly, and significant gender differences between them were reported. However, the present study's findings support the proposed second hypothesis, which is consistent with some earlier research on gender and social support.

This study has tried to explain the gender differences in Spirituality and Social Support by supporting numerous theories and studies. Thus, the results of this research are pertinent for healthcare providers and policymakers promoting successful ageing and increasing the level of social support for older people. However, the data was restricted to a small sample; therefore, the findings can be enlightened cautiously.

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Hypertension and Associated Factors among the Elderly Santals of Jangal Mahal

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ABSTRACT

This cross-sectional, community-based study aimed to examine the prevalence of hypertension and associated factors among the 300 (171 males and 129 females) Santal elderly population in the Jangal Mahal region (Paschim Medinipur and Jhargram district) West Bengal. An interview schedule was used to collect the demographic information. Along with anthropometric measurements (height, weight), each subject's Blood pressure was measured using a stethoscope and sphygmomanometer. Overall, 196 (65.3%) participants were normotensive, and many other participants 104 (34.7%) were hypertensive. Females (41.9%) were more hypertensive compared to males (29.2%). Hypertension was more prevalent among overweight participants (75.0%). The nutritional status of the participants was significantly associated with hypertension ($\chi^2 = 16.696^$; $p \leq 0.05$). Additionally, poor sleeping habits were identified as a risk factor for hypertension. This study highlights the urgent need for*

health programmes and screening for hypertension to increase awareness and detect hypertension among the Santal elderly population in this region.

Keywords : Blood pressure (BP), Tribe, Nutritional status, Anthropometry, Rural area

Hypertension (or high blood pressure) is when the pressure in blood vessels is too high, diagnosed when systolic blood pressure is ≥ 140 mm Hg and diastolic blood pressure is ≥ 90 mm Hg (Unger *et al.*, 2020). There are many factors influencing the blood pressure of individuals. Education level and social class are important factors which impact hypertension. Regidor *et al.*, (2006) found that those with low education levels and low social classes had higher hypertension prevalence than those with high education and belonged to low social classes. Another study found that age, education, depression, spirituality, and activity are influencing hypertension (Yunanto *et al.*, 2019). According to Tel, Havva (2013), individuals with depression were found to have a higher prevalence of hypertension. The prevalence of hypertension was higher in urban centres than in rural areas. Prince *et al.* (2012) found that women exhibited higher levels of hypertension compared to men, and the sex of an individual may influence the risk of having hypertension. Hypertension is a risk factor for various non-communicable diseases, including diabetes mellitus, stroke, kidney diseases, and cardiovascular diseases (Ghaffari *et al.*, 2016).

Lemoine (2020) defined “Aging is associated with at least one of the following features: structural damage, functional decline, depletion, a progressive increase of the probability of death, or the phenotypic traits typical of old age”. “Aging is the progressive accumulation of diverse, deleterious changes with time that increase the chance of disease and death” (Harman, 2006). Population ageing is a global phenomenon. The decadal growth rate of aged people in India is currently 41% (The Hindu, 2023). Due to longevity and declining fertility rates, the ageing population is increasing in number and proportion faster than the general population. Nearly 138 million older adults live in India,

including 67 million males and 71 million females. In West Bengal, the elderly population is increasing from 8.5 per cent in 2011 to 11.3 per cent in 2021 (NSO, 2021).

The total scheduled tribes (ST) are 104.2 million, which is 8.6% of the total population in India in 2011 (Paltasingh & Paliwal, 2014). The total tribal population is 5.8 per cent of the total population in West Bengal. More than half of India's Santal population (51.8%) lives in West Bengal. The santal population constitutes 12% of all the tribal population in West Bengal (Basu *et al.*, 2018). The primary language of the Santals is the Santali language (Olchiki). Nowadays, they also speak Bengali, Hindi, and Oriya. Their staple food is boiled rice. They also regularly consume fish, crabs, edible leaves, and various kinds of meat like mice, frogs, crows, bears, and snakes. They eat many worms and insects like termites and red ants. They also prepare various kinds of 'pitha' and food grains. They consume rice-bear (Dey, 2015).

The elderly population suffers many health problems, including musculoskeletal problems, hypertension, cataracts, dental problems, anaemia, cardiovascular, Neuron-logical problems, digestive problems, arthritis, chronic bronchitis, and diabetes. Females (48%) are more vulnerable than men (32.7%) in case of hypertension (Sharma *et al.*, 2013; Usha *et al.*, 2020; Kumar *et al.*, 2021). Hypertension is among the most common health problems among the tribal population (Kerketta *et al.*, 2009; Santhosam & Samuel, 2013; Borde *et al.*, 2017; Soren *et al.*, 2022). Many other studies reported that hypertension is a growing concern among the Santal population. (Kshatriya & Acharya, 2016; Gouda & Satapathy, 2020; Das *et al.*, 2021).

Considering the previous literature, the study of hypertension among the Santal elderly tribal population is critical to understanding the current scenario and improving the well-being of the elderly population.

Objectives

The present study examines the overall hypertension scenario and finds factors that influence hypertension. The specific objectives are as follows:

- To examine the prevalence of hypertension among the Santal elderly population.
- To find the associated factors of hypertension in the study population.

Method

This is a cross-sectional, community-based study conducted in the tribal areas of the Jangal Mahal area of West Bengal, India. It aimed to examine the prevalence of hypertension and associated factors among the Santal elderly population in the Jungle Mahal region. Only Santal older adults (both male and female) were selected for this study. Three hundred elderly individuals participated in the study, including males (171) and females (129). Two districts, Paschim Medinipur and Jhargram, were selected randomly from the districts of the Jungle Mahal area. Villages were selected consulting census data. Participants from the selected villages were selected using the total enumeration technique. Socio-demographic characteristics, including age (years), sex, marital status, education level, working status, occupation, and income, were collected through structured schedules and interview methods. Participation in this study was voluntary. Before data collection, we explained the study's purpose and took verbal consent from each participant. Appropriate anthropometric measurements (height, weight) were collected following standard procedure (Lohmann *et al.*, 1988). Blood pressure was measured using a stethoscope and sphygmomanometer. Two measurement readings were taken for blood pressure, and an average reading was taken for analysis in this study. The first reading was measured after resting for at least 15 minutes, and the subsequent measurement was taken in a similar process (Kahkashan, 2017). The collected data was entered into the social science statistical software (SPSS version 16). Sleeping duration was categorized into two categories (≤ 6 hours = Short and > 6 hours = normal and above) (Peng *et al.*, 2024). The chi-square

test examined the relationship between hypertension and associated factors. In the present study, $p \leq 0.05$ was considered statistically significant. According to the global database BMI Index, World Health Organization (WHO, 2006) guidelines, BMI was classified. Blood pressure was classified into four categories according to The Seventh Report of the Joint National Committee on, Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC-7, 2003).

Table 1

Classification of Blood Pressure (JNC-7, 2003)

Category	SBP		DBP
Normal	< 120	and	< 80
Prehypertension	120-139	or	80-89
High Blood Pressure / Hypertension			
Stage 1 Hypertension	140-159	or	90-99
Stage 2 hypertension	≥ 160	or	≥ 100

Result

A total of 300 Santal individuals participated in this study, of which 169 (56.3%) were male and 131 (43.7%) were female. Most of the male participants belong to the young, old age category (60-69 years) followed by old (70-79 years) and oldest old (80+ years) age group. The majority of the participants (69.0%) were married. The participants have inferior educational status, with most being preliterate (87.7%). More female participants were preliterate (93.0%) than male participants (83.6%). Among all the participants, only 8 per cent have primary education, and 3.7 per cent have upper primary education. Only two individuals (0.7%) completed a secondary or higher level of education. Though many participants were not working (62%), many had to work (38%) to earn living expenses despite their old age. Agriculture (21.7%) and manual labour (15.3%) are the main occupations of the working participants [Table 2].

Table 2
Socio-economic profile of the Santal Population

Variables	Male (n=169)	Female (n=131)	Total (n=300)
Age (years)			
60-69	109 (63.7)	105 (81.4)	214 (71.3)
70-79	39 (22.8)	10 (7.8)	49 (16.3)
≥ 80	23 (13.5)	14 (10.9)	37 (12.3)
Marital status			
Married	134 (79.3)	73 (55.7)	207 (69.0)
Widow	0	58 (44.3)	58 (19.3)
Widower	35 (20.7)	0	35 (11.7)
Educational status			
Non-literate	143 (83.6)	120 (93.0)	263 (87.7)
Primary	17 (9.9)	7 (5.4)	24 (8.0)
U. primary	9 (5.3)	2 (1.6)	11 (3.7)
Secondary & above	2 (1.2)	0	2 (0.7)
Working status			
Working	75 (44.4)	39 (29.8)	114 (38.0)
Non-working	94 (55.6)	92 (70.2)	186 (62.0)
Occupation			
Agriculture	46 (27.2)	19 (14.5)	65 (21.7)
Service	3 (1.8)	0	3 (1.0)
Labourer	26 (15.4)	20 (15.3)	46 (15.3)
None	94 (55.6)	92 (70.2)	186 (62.0)
Income category			
No-income	94 (55.6)	92 (70.2)	186 (62.0)
< 4000	39 (23.1)	21 (16.0)	60 (20.0)
≥ 4000	36 (21.3)	18 (13.7)	54 (18.0)

Table 3 shows that most people (43.7%) belonged to the pre-hypertension category in systolic blood pressure (25.0% male and 18.7% female). Most male Santals (17.3%) had normal systolic blood pressure. Females were more hypertensive stage-1 than males. Both males and females (6.3%) exhibited similar hypertension stage-1 and stage-2 for systolic blood pressure.

Table 3*Systolic Blood Pressure (SBP) among the Santals*

Category of SBP	Male N (%)	Female N (%)	Total N (%)
Normal	52 (17.3)	24 (8.0)	76 (25.3)
Prehypertension	75 (25.0)	56 (18.7)	131 (43.7)
Stage 1 hypertension	25 (8.3)	30 (10.0)	55 (18.3)
Stage 2 hypertension	19 (6.3)	19 (6.3)	38 (12.7)
Total	171 (57.0)	129 (43.0)	300 (100.0)

Table- 4 represents the distribution of diastolic blood pressure; almost half of the respondents (51.3%) had normal diastolic blood pressure, whereas most respondents (29.3%) were male. 30.7% of respondents were pre-hypertensive, respectively 17.7% male and 13.0% female respondents. Stage- 1 hypertension (13.0%) was more than Stage- 2 hypertension (5.0%) for diastolic blood pressure. At the same time, male respondents were more hypertensive in both cases of Stage -1 and Stage- 2 diastolic blood pressure than females.

Table 4*Diastolic Blood Pressure (DBP) among Santals*

Category of DBP	Male N (%)	Female N (%)	Total N (%)
Normal	88 (29.3)	66 (22.0)	154 (51.3)
Prehypertension	53 (17.7)	39 (13.0)	92 (30.7)
Stage 1 hypertension	20 (6.7)	19 (6.3)	39 (13.0)
Stage 2 hypertension	10 (3.3)	5 (1.7)	15 (5.0)
Total	171 (57.0)	129 (43.0)	300 (100.0)

Table 5 represents categories of blood pressure among the Santal. Overall, 196 (65.3%) participants were normotensive, and a few participants, 104 (34.7%) were hypertensive. There was a highly significant association between sex and blood pressure ($\chi^2 = 5.171$; $pd > 0.05$). In this study, males (70.8%) were more normotensive than females (25.0%). At the same time, females (41.9%) were more hypertensive compared to males (29.2%).

Table 5
Hypertension status of the Santal participants

Category of BP	Male N (%)	Female N (%)	Total N (%)	Chi-square
Normotensive	121 (70.8)	75 (25.0)	196 (65.3)	5.171*
Hypertensive	50 (29.2)	54 (41.9)	104 (34.7)	
Total	171 (100.0)	129 (100.0)	300 (100.0)	

*p≤0.05

Table 6 represents the relationship between the socioeconomic background of the participants and their hypertension status. The oldest old population is more vulnerable to Hypertension (35.1%) compared to the young-old and middle-old population. Meanwhile, Middle-aged participants (67.3%) were more normotensive. The age group has no statistically significant relation with Hypertension ($\chi^2= 0.105$; $p \geq 0.05$). Widow persons were more hypertensive (42.4%) than others (married and widower). In comparison, widowers (70.6%) were more normotensive than others (married and widow). Hypertension was more prevalent among non-literate persons. Those who did not work were more vulnerable to Hypertension compared to other categories.

Table 7 shows the relationship between hypertension and other factors. Hypertension was more prevalent among overweight participants (75.0%). Underweight people (71.5%) were more normotensive than others. The relationship between BMI and hypertension was statistically significant ($\chi^2= 16.696$; $p\leq 0.05$). Those who slept less than 7 hours were more.

Table 6
Relationship between hypertension and socio-demographic variables

Socio-economic variables	Hypertension				Chi-square
	Normotensive		Hypertensive		
	n	%	n	%	
Age					$\chi^2 = .105$
60-69	139	65.0	75	35.0	
70-79	33	67.3	16	32.7	

≥ 80	24	64.9	13	35.1	$\chi^2 = .525$
Marital status					
Married	138	66.7	69	33.3	
Widow/Widower	58	62.4	35	37.6	$\chi^2 = 3.171$
Education					
Non-literate	167	63.5	96	36.5	
Literate	29	78.4	8	21.6	$\chi^2 = 3.054$
Occupation					
Agriculture	48	72.7	18	27.3	
Service	6	50.0	6	50.0	
Labour	28	65.1	15	34.9	
Unemployment	114	63.7	65	36.3	

Table 7

The relationship between hypertension and other associated factors

Associated factors	Hypertension				Chi-square
	Normotensive		Hypertensive		
	n	%	n	%	
BMI					$\chi^2=16.696^*$
Underweight	98	71.5	39	28.5	
Normal	93	65.0	50	35.0	
Overweight	5	25.0	15	75.0	$\chi^2=5.299^*$
Sleeping durations (hours)					
≤6	82	58.6	58	41.4	
>6	114	71.3	46	28.7	$\chi^2=0.728$
Loneliness					
Yes	40	70.2	17	29.8	
No	156	64.2	87	35.8	$\chi^2=.027$
Awareness					
Yes	81	64.8	44	35.2	
No	115	65.7	60	34.3	$\chi^2=.183$
Ignorance					
Yes	24	68.8	11	31.4	
No	172	64.9	93	35.1	

* $p \leq 0.05$

hypertensive. 71.3 per cent of participants were normotensive and usually slept (>6 hours) per night. Sleeping duration was statistically significant with hypertension ($\chi^2 = 5.299$; $p \leq 0.05$). Loneliness, awareness, and ignorance were not statistically significant with hypertension ($\chi^2 = 0.728$; $p > 0.05$).

Discussion

Most of the participants (69.0%) were males in this study. The number of youngest persons was high among the participants. Among the participants, married persons were more common. Almost all participants were backward from primary education. Only 8.0 per cent of participants had primary education. Almost 60 per cent of participants are currently not involved in any work. So, they belonged to a lower socio-economic class. A similar result was found in another study (Basu *et al.*, 2018). Systolic blood pressure was highly found among tribal females in this study, whereas other tribal areas in Kerala reported inverse results; systolic blood pressure was highly found in tribal males compared to females (Kahkashan, 2017).

This study analysed that education and overweight were risk factors for hypertension. Older age was the risk factor for hypertension. It was estimated that worldwide 1.28 billion adults (aged 30-79 years) have hypertension (WHO, 2023). This study observed that hypertension was more prevalent among the youngest-aged participants. Middle-aged participants were more normotensive. However, the age group was not statistically significant with hypertension. However, another tribal study of Kashmir revealed that the higher age group was more hypertensive than other age groups (Ganie *et al.*, 2021). Generally, hypertension or high blood pressure was more highly affected in males than females at similar ages (Reckelhoff *et al.*, 2001). However, in this study, Santals females were more hypertensive than male participants. Hypertension was statistically significant with hypertension.

Similarly, hypertension was more common among tribal females (Geetha *et al.*, 2020). However, another tribal study in Maharashtra

found that males were more hypertensive than females (Borde *et al.*, 2017). A survey stated that married men were healthier than unmarried, divorced, or widowed men. Married persons had a lower risk of diseases, depression, and other health problems. Marriage was a positive factor that affected better health conditions (Harvard Health Publishing, 2019).

It was similarly stated in this study that widows had higher blood pressure compared to others (married individuals and widowers). On the other hand, widowers were more normotensive. People who could read and write had lower blood pressure than those who had not received any primary education. There was no significant relation between education and blood pressure. Similarly, another tribal study on hypertension in Central India stated that illiterate participants were more hypertensive than higher-educated persons (Chakma *et al.*, 2017). So, no primary education or illiteracy was the most critical factor for hypertension. They had primary education or literacy and were more aware of health. A study found that education was a highly effective intervention in managing hypertension, medication usage, blood pressure control, and lifestyle patterns (Ukoha-Kalu *et al.*, 2023). It also discovered that individuals who were not employed or not engaged in any work were more likely to experience hypertension. On the other hand, those involved in agriculture were more likely to have normal blood pressure.

Hypertension and BMI were significantly associated. Overweight participants were more hypertensive than others. However, underweight participants were more normotensive. Similar results were found among the adult tribal population in Kerala state (Meshram *et al.*, 2012). Other authors studied hypertension among the general population; they reported that being overweight or obese was the risk factor for hypertension (Swami *et al.*, 2005; Hazarika *et al.*, 2014; Alam *et al.*, 2015; Ramesh & Stanly, 2017). Healthy sleeping habits promote good health. The poor sleeping habit was a high-risk factor for hypertension (Li, C. and S. Shang 2021). The present study also observed that hypertension was more prevalent

in those who slept for a shorter duration. Another cross-sectional study in China showed the same result among the general population (Li *et al.*, 2019).

Conclusion

Our study concludes that hypertension is a significant health concern among the Santal tribal elderly population. Most participants were in the prehypertension stage, indicating a potential future health crisis. Females were found to be more hypertensive than males, and BMI was significantly associated with hypertension. Overweight individuals were more vulnerable to hypertension compared to other categories. Additionally, poor sleeping habits were identified as a risk factor for hypertension. Therefore, our study underscores the urgent need for health programs and screening for hypertension among the Santal tribal elderly population in this region.

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Social Support, Life Satisfaction and Meaning in Life among Urban and Rural Elderly of West Bengal

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ABSTRACT

The present study, which examined the effect of area of residence on social support, life satisfaction, and meaning in life among 60 elderly individuals, has revealed a pressing need for targeted interventions. These individuals, belonging to rural and urban households, males and females in equal numbers, from three districts of West Bengal, were administered the Multidimensional Scale of Perceived Social Support (MSPSS), the Satisfaction with Life Scale (SWLS), and the Meaning in Life Questionnaire (MLQ). The results showed significant differences between elderly living in rural and urban areas on social support, life satisfaction, and presence of meaning, with urban elderly reporting higher levels of these variables. The main effect of area of residence was significant, while the main effect of gender and the interaction effect was

insignificant. These findings underscore the urgent need for targeted interventions to improve social support to significantly enhance the well-being and life satisfaction of the elderly, particularly in rural regions of West Bengal. The implications of this study highlight the necessity for immediate action to address the well-being of the elderly in different residential areas, emphasising the crucial role of targeted interventions in improving the lives of the elderly. The potential of these interventions to make a significant difference in the lives of the elderly is promising, and this study provides a strong foundation for their implementation and success.

Keywords : Social support, Life satisfaction, Meaning in life, Elderly

Ageing positively is essential as some physical and psychological declines are a normal part of the ageing process. Vivacious and successful ageing, a model recognised as a way to live successfully in old age (Khandelwal & Singh, 2024), is particularly relevant in the context of this study. The rise in the demographics poses several challenges, particularly related to the mental health and well-being of the elderly. Social support, life satisfaction, and a sense of meaning in life play crucial roles in determining the well-being of older adults. These factors are not just important, but they are the cornerstone of a fulfilling and satisfying life for the elderly. Given West Bengal's distinct sociocultural fabric, characterized by its rich history, diverse population, and unique social customs, it is essential to examine the role of certain demographic factors, such as residential area and gender, in shaping social support, life satisfaction, and meaning in life for the elderly.

Social Support

A significant predictor of living a healthy life is social support. Social support is a multidimensional construct encompassing emotional and instrumental assistance individuals receive from their social networks (House *et al.*, 1988). It refers to positive exchanges with network members that help people stay healthy or cope with adverse

events (Thoits, 2011). Biegel *et al.* (1984) stated the importance of social support by emphasising that the “elderly have greater needs for social support than other population groups as they face the continuum of loss of experience in body functioning, sensory functioning, mental functioning, family and peer group supports, income, self-image, self-esteem, control, and power.” Social support from their family members (especially their adult children) is vital for life satisfaction among elderly people (Prakash & Srivastava, 2020).

Life Satisfaction

Life satisfaction is an important part of ageing. It refers to the overall assessment of feelings and attitudes about one’s life at a particular point in time, ranging from negative to positive. Life satisfaction is a cognitive assessment process in a person, which depends on comparing his situation with the appropriate standards (Diener, 2009). Life satisfaction may be attained by having a decent income, excellent health, and an active lifestyle both in family and friendship (Sousa & Lyubomirsky, 2001). Good health and sufficient support from friends and family are necessary for satisfaction with life. Along with these factors, the living arrangements of the elderly affect their life satisfaction. Adak and Singh (2023) reported a significant effect of living arrangements on the life satisfaction of the elderly living in the urban areas of Kolkata and the rural areas of PaschimMedinipur. They also reported a significant effect of gender on the life satisfaction of older people; male participants reported higher levels of life satisfaction than their female counterparts.

Meaning in life

Meaning in life is a strong predictor of successful ageing and satisfaction with life and an important psychological variable promoting well-being (Cohen-Louck&Aviad-Wilchek, 2020). Meaning in life is a multidimensional concept that refers to the significance and purpose of people’s lives. It is a positive psychological quality that’s linked to well-being and can help people cope with stress, anxiety, and trauma. According to Frankl (1963), meaning in life involves a person’s sense

of purpose and direction, which helps them navigate existential challenges. Research consistently shows that higher levels of perceived meaning in life are associated with greater psychological well-being, lower depression, and enhanced life satisfaction (Steger *et al.*, 2006).

Area of Residence and Social Support, Life satisfaction, and Meaning in life

Area of residence, particularly the distinction between rural and urban settings, has been shown to affect access to social resources, quality of life, and mental health in elderly populations. Studies have demonstrated that the availability and perception of social support can differ markedly between rural and urban areas. Older adults living in rural areas often experience limited access to social networks and healthcare resources compared to their urban counterparts (Gariépy *et al.*, 2016). On the other hand, despite offering greater access to services and social networks, urban environments may lead to higher levels of social isolation due to population density and anonymity (Krause & Shaw, 2002). Area of residence also affects life satisfaction among the elderly. Urban environments provide better healthcare, recreational opportunities, and social interactions, leading to higher life satisfaction for some individuals (Lelkes, 2006). Conversely, rural elderly individuals might experience a higher sense of well-being due to stronger ties with family and community, although this may vary depending on the availability of services (Clarke *et al.*, 2011). Studies have noted that rural elderly individuals may be more vulnerable to loneliness and depression, which can lower life satisfaction levels (Croezen *et al.*, 2009).

Gender and Social Support, Life satisfaction and Meaning in life

Gender also plays a significant role in shaping experiences of social support and life satisfaction. Sandilya and Singh (2020) reported a significant effect of gender on perceived social support in older adults; females perceived a higher level of social support than their male counterparts. Women generally report higher levels of social support

than men, as they often engage more in social relationships and are more likely to seek emotional support (Antonucci & Akiyama, 1987). This increased social engagement among women tends to impact life satisfaction positively. However, men, particularly those of older age, may experience a more significant decline in social networks, which can negatively affect their well-being (Pinquart & Sörensen, 2006). Women often report higher levels of perceived meaning in life than men, which may be attributed to their greater involvement in caregiving roles and maintaining family connections (Steger *et al.*, 2006). The search for meaning may also differ based on gender, with men focusing more on individual achievements and women deriving meaning from relationships and caregiving roles (Baumeister & Vohs, 2002).

The present study aimed to delve deeper into the effects of these demographic variables, focusing specifically on how area of residence and gender influence social support, life satisfaction, and meaning in life among elderly individuals in West Bengal. The following hypotheses were tested in the study:

- The area of residence will significantly affect social support, life satisfaction, and meaning in life.
- There will be a significant effect of gender on social support, life satisfaction, and meaning in life.

Method

Sample

The study was conducted on 60 elderly people (30 male and 30 female) aged 60 years and above (average age 72 years) selected purposively from Uttar Dinajpur, PurbaBardhaman, and South 24 Parganas districts of West Bengal. The districts were selected based on geographical coverage across the state and weightage concerning population. Uttar Dinajpur is selected as a representative from North Bengal, PurbaBardhaman represents the central part of the State, and South 24 Parganas is selected as a representative from southern Bengal. From each district, 20 subjects were selected (10 male and 10 female). Of 60 subjects, 30 lived in rural areas and 30 in urban areas.

Tools Used

Multidimensional Scale of Perceived Social Support (MSPSS) developed by Zimet *et al.*, (1988). The scale comprises 12 items and three sub-dimensions (friends, family, and significant others). The items used in the questionnaire were subjected to a five-point Likert type gradation, with participation levels scored between 1 = strongly no and 5 = strongly yes. The scale has high internal consistency with Cronbach's alpha of 0.88 and strong test-retest reliability of 0.85 over 2–3 months.

The Satisfaction with Life Scale (SWLS) was developed by Diener *et al.*, (1985). The scale consists of five items, each rated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The scale has reported excellent internal consistency of 0.87 (Cronbach's alpha) and good test-retest reliability (ranging from 0.54 to 0.84 over different time frames) (Pavot & Diener, 1993).

Meaning in Life Questionnaire (MLQ) was developed by Steger *et al.*, (2006). It measures two primary dimensions, i.e., the Presence of Meaning and the Search for Meaning. The MLQ consists of 10 items—5 items for each subscale, and respondents rate each item on a 7-point Likert scale, ranging from 1 (Absolutely Untrue) to 7 (Absolutely True). The scale has high internal consistency (Cronbach's alpha: 0.86 to 0.88 for Presence of Meaning, 0.87 to 0.92 for Search for Meaning) and stable test-retest reliability (ranging from 0.67 to 0.73).

Procedure

Participants were randomly selected through local community networks. They were approached individually, demographic details were recorded, and informed consent was obtained before collecting the data. Rapport was established, and the participants were given individual instructions. At first, instructions related to the Multidimensional Scale of Perceived Social Support (MSPSS) were given to the subject, and then the scale was given to the participants. When the participants responded to all the scale items, they were taken back, and the same procedure was followed for the Satisfaction with Life Scale (SWLS) and the Meaning in Life Questionnaire (MLQ).

Data collection occurred over one month through structured interviews and self-administered questionnaires, conducted in a comfortable environment to ensure accurate responses. When the participants responded to all questionnaires, they were thanked for their cooperation and time.

Statistical Analysis

Data obtained from the sample was organised, tabulated, and analysed using SPSS. Mean and standard deviation were calculated for social support, life satisfaction, and subscales of meaning in life. Differences between the groups were analysed using a test, and the main effect of Area of residence and gender was assessed using ANOVA.

Result

The result shows that elderly people living in urban areas reported higher scores on all the variables than their rural counterparts. The result is graphically presented in Figure 1.

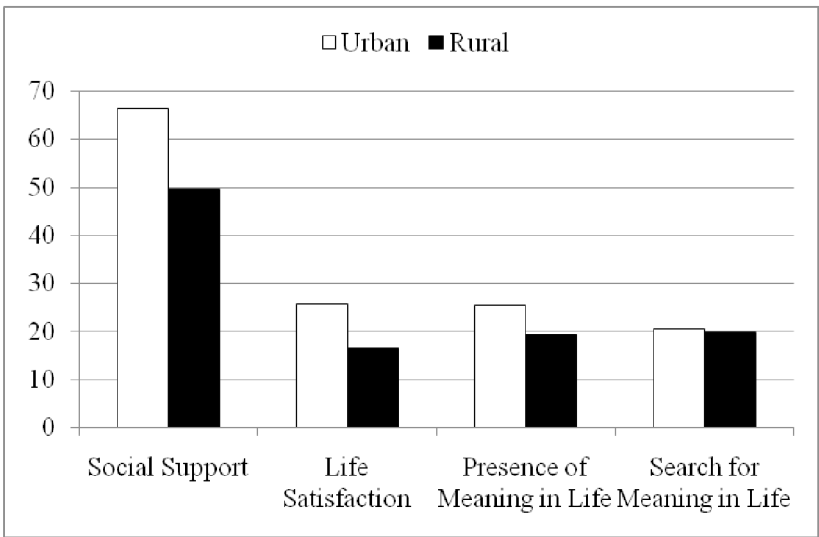


Figure 1 : Social Support, Life Satisfaction, Presence of Meaning in Life and Search for Meaning in Life in Elderly in Urban and Rural Areas.

Results revealed that the elderly living in urban areas reported higher levels of perceived social support ($M=66.30$, $SD=13.96$) than those living in rural areas ($M=49.63$, $SD=13.80$), and the difference between the two groups was significant, $t(58) = 4.65$, $p=0.00$. Similarly, on the life satisfaction scale, elderly living in urban areas reported higher scores ($M=25.73$, $SD = 8.13$) than those living in rural areas ($M = 16.50$, $SD=5.99$). The difference between the groups was significant, $t(58) = 5.01$, $p=0.00$. On Presence of Meaning in Life, the urban elderly reported a higher score ($M=25.57$, $SD = 4.73$) than the rural elderly, and the difference between the groups was significant, $t(58) = 5.50$, $p=0.00$. For the Search of Meaning in Life scale, the Urban elderly scored slightly higher ($M = 20.47$, $SD = 9.03$) than the rural elderly ($M = 19.90$, $SD = 5.18$); however, the difference between the groups was insignificant.

The difference between male and female older adults was also assessed for social support, life satisfaction, and subscales of meaning in life. The results are shown in Table 1, which shows a slight difference between male and female elderly people; however, none of the differences was found to be significant.

Table 1

Mean and SD (within parenthesis) of social support, Living Satisfaction and Meaning in Life among male and female elderly

	Male	Female
Social Support	57.00 (15.19)	58.93 (17.21)
Life Satisfaction	19.83 (8.96)	22.40 (7.89)
Presence of Meaning in Life	22.37 (5.28)	22.53 (5.53)
Search for Meaning in Life	20.57 (8.25)	19.80 (6.33)

The data was further analysed using ANOVA to see whether the main effects of area of residence and gender and their interaction effect are significant. The result revealed that the main effect of area of residence was significant for social support, $F(1, 56) = 20.99$, $p = 0.00$, life satisfaction $F(1, 56) = 25.29$, $p = 0.00$ and presence of meaning in life $F(1, 56) = 29.50$, $p = 0.00$. However, the main effect

of the area of residence was not significant for the search for meaning in life. The main effect of gender and the interaction effect of area of residence and gender were not significant. Results are shown in Table 2.

Table 2
Summary of ANOVA

Source of Variance	Dependent Variable	df	Type III Sum of	Mean Square Squares	F	Sig.
Area of Residence	Social Support	1	4166.67	4166.67	20.99	0.00
	Life Satisfaction	1	1278.82	1278.82	25.29	0.00
	Presence of Meaning in Life	1	582.82	582.82	29.50	0.00
Gender	Search for Meaning in Life	1	4.82	4.82	0.09	0.77
	Social Support	1	56.07	56.07	0.28	0.59
	Life Satisfaction	1	98.82	98.82	1.95	0.17
	Presence of Meaning in Life	1	0.42	0.417	0.02	0.89
	Search for Meaning in Life	1	8.82	8.82	0.16	0.69
Area * Gender	Social Support	1	4.27	4.27	0.02	0.88
	Life Satisfaction	1	25.35	25.35	0.50	0.48
	Presence of Meaning in Life	1	7.35	7.35	0.37	0.54
	Search for Meaning in Life	1	20.42	20.42	0.37	0.55
	Social Support	56	11114.93	198.48		
Within (Error)	Life Satisfaction	56	2831.20	50.56		
	Presence of Meaning in Life	56	1106.27	19.76		
	Search for Meaning in Life	56	3112.93	55.59		
	Meaning in Life	56				

Discussion

The present study aimed to explore the influence of area of residence and gender on social support, life satisfaction, and meaning in life among elderly individuals in West Bengal. There is a lack of research exploring how socio-demographic factors, such as area of residence and gender, specifically impact the multidimensional aspects of social support and its relationship with life satisfaction and meaning in life among the elderly, highlighting quite a gap in the literature, which in turn emphasises the need for further investigation into these critical variables, particularly concerning the elderly population.

The results revealed significant differences between rural and urban elderly populations, with urban residents reporting higher levels of social support, life satisfaction, and presence of meaning. The findings supported the first hypothesis, i.e., there will be a significant effect of area of residence on social support, life satisfaction, and meaning in life. However, the male and female elderly do not differ significantly regarding social support, life satisfaction, and the presence of meaning. Thus, the second hypothesis, i.e., there will be a significant effect of gender on social support, life satisfaction, and meaning in life, gets rejected.

The results revealed that elderly individuals residing in urban areas reported higher levels of social support, whereas those residing in rural areas reported moderate social support. Regarding the life satisfaction variable, elderly individuals residing in urban areas seem satisfied, while those from rural regions appear slightly dissatisfied. This also suggests a positive relationship between social support and life satisfaction, with urban elderly benefiting from more muscular support systems contributing to overall satisfaction. In contrast, the rural elderly may face more challenges in achieving similar levels of contentment. These findings resonate with previous research highlighting the advantages of urban environments regarding social support and life satisfaction. The result is supported by a study by Gariépy *et al.*, (2016), who demonstrated that urban residents benefit from more extensive social networks and better access to healthcare

services than rural residents. Similarly, Lelkes (2006) found that urban living often correlates with enhanced life satisfaction due to the availability of diverse resources and opportunities. Conversely, rural communities are sometimes associated with a strong sense of community, which does not necessarily lead to higher social support or life satisfaction. Studies by Kaida and Boyd (2011) and Clarke *et al.*, (2011) suggest that while rural areas might foster close-knit social networks, they often lack the resources available in urban settings that contribute to overall well-being. Li *et al.*, (2015) reported that social support, particularly in urban areas, was a significant factor contributing to life satisfaction, while rural elderly populations experienced lower social support and, thus, lower life satisfaction. The findings also highlight the significant role of social support in enhancing life satisfaction and meaning, particularly for the elderly in rural areas. Interventions to strengthen social support networks in rural contexts should be prioritised to improve well-being.

Further, the findings indicated that both male and female elderly participants exhibited moderate levels of social support. However, regarding life satisfaction, males are generally neutral, while females report being slightly satisfied. Both groups show low levels regarding the presence of meaning, indicating that neither feels a strong sense of purpose in life. Likewise, both males and females report low levels of searching for meaning. Regarding gender differences, the findings are partially consistent with earlier research by Antonucci and Akiyama (1987), who noted that women typically report higher levels of social support. However, the present study did not find significant gender differences in life satisfaction or meaning, contrary to some studies that have reported such differences (Pinquart & Sörensen, 2006). This discrepancy may be due to cultural or regional factors unique to West Bengal, suggesting that gender differences in these variables might vary depending on the sociocultural context.

This study has several limitations that must be addressed. The relatively small sample size (60 participants) limits the generalizability of the findings. Furthermore, the study was confined to three districts

in West Bengal, which may restrict the applicability of the results to other regions or states in India. Future research can focus on identifying the specific types of social support most beneficial in different settings and evaluating the effectiveness of targeted interventions. Expanding the study to include a more diverse sample across various regions and cultural contexts would provide a more nuanced understanding of the factors influencing elderly well-being. Investigating additional demographic variables, such as socioeconomic status and health conditions, could offer deeper insights into the interplay between social support and life satisfaction among elderly populations.

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Handgrip Strength and Nutritional Status in Indian Older Adults: Evidence from LASI, Wave I

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ABSTRACT

The present study examines the relationship between Nutritional Status (NS) and Hand Grip Strength (HGS) in Indian older adults. The study used the dataset of the Longitudinal Aging Study of India, 2020 (LASI), wave I. Data of 63899 individuals - males and females, - 35,344 individuals aged 45-59 years, 25487 individuals aged 60-79 years, and 3068 individuals aged ≥ 80 years above were selected for the present study. The average of the respondents' HGS (kg) for both hands (performed twice) was computed. Body mass index (kg/m^2) was calculated and categorized as per WHO recommendations for South Asians, i.e., <18.5 as Underweight, 18.5-22.9 as Normal, 23-24.9 as At risk, 25-29.9 as Obese I and ≥ 30 as Obese II. One-way ANOVA and Games-Howell post hoc analysis was performed using SPSS Grad Pack 29. One-way ANOVA confirmed the presence of

significant ($P < 0.05$) differences. In contrast, the post hoc analysis revealed that there were significant ($P < 0.05$) differences in HGS (kg) in individuals with different nutritional status. HGS significantly ($P < 0.05$) differs with nutritional status in Indian older adults. These findings suggest the importance of maintaining a healthy nutritional status in older adults to preserve hand grip strength and overall physical function.

Keywords : Indian older adults, Hand grip strength, Nutritional status, Functional ability, Ageism

India, as one of the most populous countries in Asia, is witnessing a steady rise in its older adult population, which is expected to reach about 230 million by the year 2036 from 103 million in 2011 (GoI, 2020; GoI, 2011). The increasing prevalence of health issues among older Indian adults (Mukherjee *et al.*, 2023; Banerjee, 2021) not only increases out-of-pocket expenditure (Garg *et al.*, 2022) or pressurised the health system but also creates a challenging situation for achieving Sustainable Development Goals (Plessenti *et al.*, 2021).

Ageing is associated with the deprived physical functioning of the body (Milanovic *et al.*, 2013), which, in turn, increases the chances of restricted mobility, dependency on others for conducting daily activities, risk of falls, hospitalisation, and premature mortality (Grimmer *et al.*, 2019; Smeed *et al.*, 2012). A decrease in physical functioning does not occur suddenly; instead, it develops gradually (Ryan *et al.*, 2015). Reduced functional ability depends on various factors, including body composition, nutritional status, and physical fitness (Liao *et al.*, 2017; Xu *et al.*, 2018; Mondal *et al.*, 2024), among which muscular strength is considered more important (Trombetti *et al.*, 2016). Appropriate muscular strength among ageing adults and elderly individuals prevents loss of physical functions and help in carrying out daily activities (Spartano *et al.*, 2019). In India, 16.5 per cent of individuals aged 45-59 experienced falls, and about 9 per cent have at least one limitation in daily activities. In contrast, the percentage of

falls in individuals aged ≥ 60 years was 22.9, and 16.1 per cent suffered from injuries (IIPS, 2020). Development of muscular strength decline in early ageing. It may increase dependency, risk of falls, hospitalization, and mortality in the later years and can hinder successful ageing (Ravindran & Kutty, 2016; Stewart Williams *et al.*, 2015).

Muscular strength can be defined as the force produced by the muscle fibers during contraction and can fluctuate by growth or loss of the muscle fibers (Chan *et al.*, 2022). Hand Grip Strength (HGS) is a well-recognized indicator for the assessment of overall muscular strength and muscle function of the human body and helps in the identification of early deprivation in muscle function, as well as the onset of frailty and sarcopenia (Sousa-Santos & Amaral, 2017; McGrath *et al.*, 2022). Lower HGS is linked with increased functional disabilities among older Indian adults in terms of difficulties in conducting both daily activities and instrumental activities (Muhammad *et al.*, 2022). Cardiovascular mortality, i.e., death caused by heart attack, stroke, or cardiovascular events, also known as all-cause mortality, is associated with lower HGS among older adults (Lopez-Bueno *et al.*, 2022; Mondal *et al.*, 2024). Nutritional status plays an important role in maintaining appropriate HGS; thereby, assessment of HGS can also indicate the state of nutrition prevailing among older adults (Norman *et al.*, 2011). In the context of India, the increasing prevalence of malnutrition in dual form (i.e., widely exposed to the risk of developing undernutrition or overnutrition, in terms of overweight and obesity) among Indian older adults (Wells *et al.*, 2020; Bardhan *et al.*, 2024) are associated with lower muscle fibers, deprived HGS and make them more susceptible to the development of frailty (Boulos *et al.*, 2016; Ramsey *et al.*, 2020); which will lead to a more complex situation for achieving healthier ageing process by the country (Kandapan *et al.*, 2022). Maintenance of proper nutritional status through a balanced and healthy dietary approach and adequate physical activity can be fruitful in achieving “Healthy Aging” among Indian older adults (Shlisky *et al.*, 2017; Bardhan *et al.*, 2024; Mondal *et al.*, 2024).

Nutritional status can be defined as the state of health that results from the balance between the nutritional intake, considering the nutritional requirements and nutrient utilization for maintenance, compensating the losses or reserves (Fernandez-Lazaro & Seco-Calvo, 2023; Bardhan *et al.*, 2024). Undernourishment causes immuno-suppression, increasing vulnerability to infection and diseases (Soderstrom *et al.*, 2017). Overnutrition causes increased chronic inflammation, risk of lifestyle and metabolic diseases, and interferes with the protective immunity of the body (Cai, 2013; Banerjee *et al.*, 2021). The nutritional status of an older adult directly influences the HGS and the probability of frailty, as HGS serves as the most important indicator for evaluating frailty (Salminen *et al.*, 2020). As nutrition plays a key role in most of the frailty evaluation concepts (Valentini *et al.*, 2018), nutritional frailty, a new approach in the field of frailty and allied issues, has gained the attention of researchers worldwide in recent years (Zupo *et al.*, 2021); it focuses on the interrelation between nutritional status, nutrient intake and physical, physiological, psychological, social and functional domains of frailty (Racey *et al.*, 2021). To address the issue, the study aimed to find whether the HGS, a well-known frailty indicator, differs with different nutritional status, denoted by Body Mass Index (BMI) among Indian older adults.

Method

Data

The study used the data from the Longitudinal Aging Study of India (LASI), Wave 1, 2020, conducted from 2017 to 2018 all over India using a stratified, area probabilistic cluster sampling simple random method. The study was carried out among 72250 individuals of both sexes, aged 45 years and above, using standard procedures and questionnaires to collect physical, social, household, and cognitive information. From the 72250 respondents, data available on HGS (kg) and nutritional status (denoted by body mass index or BMI) of 63899 Indian older adults were selected for the present study and categorized as aged 45-59 years ($n=35344$), 60-79 years ($n=25487$) and ≥ 80 years ($n=3068$).

Inclusion criteria

Indian older adults aged ≥ 45 years and with data available on nutritional status, denoted by BMI and HGS, were selected for the present study.

Exclusion criteria

Indian older adults whose BMI and HGS data were unavailable were excluded from the study.

Outcome variable

To assess the relationship between nutritional status and HGS, the study selected HGS as the outcome variable to observe a possible relation with BMI. From the LASI data, the average of the respondents' HGS on both hands (performed twice) was computed.

Predictor variable

BMI is a globally recognized indicator of nutritional status. It was selected as a predictor variable to understand its possible relation with HGS separately for both sexes (i.e., men and women). BMI (kg/m^2) was computed from the LASI dataset and categorized as per WHO recommendations for South Asians, i.e., <18.5 as Underweight, $18.5\text{--}22.9$ as Normal, $23\text{--}24.9$ as At risk, $25\text{--}29.9$ as Obese I and >30 as Obese II (WHO, 2000).

Statistical analysis

Statistical analyses were carried out using SPSS Gradepack 29.0 advance. One-way ANOVA was performed between the variables to understand possible differences in HGS with BMI classifications. After obtaining significant ($P<0.05$) differences, Games-Howell post hoc analysis was performed.

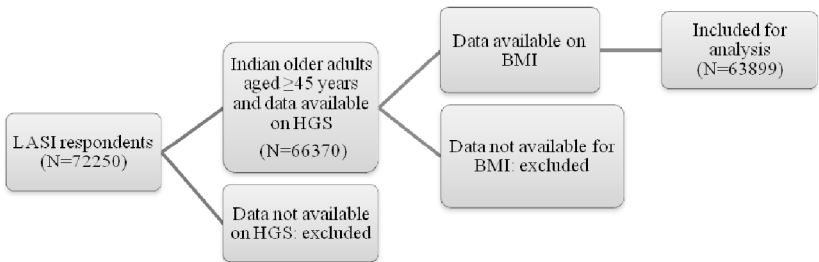


Figure: Diagrammatic flow chart of the analytical sampling procedure.

Ethical Approval

This study used the secondary data of LASI, Wave 1. The agencies conducting the field survey of LASI-1 had collected prior consent - both written and verbal - from the respondents for the collection of data. The Indian Council of Medical Research (ICMR) provided the ethical approval for conducting the LASI survey.

Results

The study included 63899 older adults, among which 42.35 percent were males and 57.65 percent were females. The average age of older adult males was 51.3 ± 4.35 (AM $\pm$ SD) years for aged 45-59 years, 67.2 ± 5.21 years for aged 60-79 years, and 84.3 ± 4.56 years for aged 80 years and above. Whereas the average age of females was 48.3 ± 6.42 years for aged 45-59 years, 66.8 ± 5.22 years for aged 60-79 years, and 84.8 ± 5.28 years for aged 80 years and above. Among the older adults aged 45-59 years, 13.54 percent were malnourished, 35.52 percent had normal nutritional status, and 50.94 percent were at risk of developing metabolic complications. Of individuals aged 60-79 years, 17.62 percent were malnourished, 36.91 percent were standard, and 45.47 percent were at risk of developing metabolic complications. In the case of individuals aged 80 years and above, 18.51 percent were malnourished, 35.39 percent were of normal nutritional status, and 45.89 percent were at risk of developing metabolic complications. The average HGS was 29.7 ± 6.90 kg for males and 19.4 ± 4.94 kg for females aged 45-59 years, 21.3 ± 7.70 kg for males and 21.5 ± 7.80 kg for females aged 60-79 years, and 21.3 ± 7.40 kg for males and 21.5 ± 7.69 for females aged ≥ 80 years. Table 1 presents the results of a one-way ANOVA on nutritional status denoted by BMI categories in terms of HGS (kg) of older Indian adults, according to age and sex.

Table 1

The variation in HGS (kg) between the different nutritional states of the Indian older adults

	HGS (kg)						Significance
		Underweight	Normal	At risk	Obese I	Obese II	
Male	45-59 years (13283)	26.4±5.98 (1927)	29.2 ± 6.44 (5339)	30.7± 6.89 (2295)	31.5 ± 7.16 (3047)	32.5 ± 7.54 (675)	F=221.502 P<0.001
	60-79 years (12316)	18.7 ± 6.84 (2162)	21.4 ± 7.52 (4554)	22.4 ± 7.87 (1860)	22.5 ± 8.03 (2720)	21.4 ± 7.69 (1020)	F=89.530 P<0.001
	≥ 80 years (1460)	19.1 ± 6.19 (270)	21.3 ± 7.22 (527)	22.8 ± 7.80 (209)	22.1 ± 7.57 (344)	21.2 ± 8.09 (110)	F=9.590 P<0.001
Female	45-59 years (22061)	17.8 ± 4.50 (2858)	19.1 ± 4.80 (7216)	19.9 ± 5.03 (3419)	20.1 ± 4.98 (5978)	20.4 ± 5.08 (2590)	F=152.634 P<0.001
	60-79 years (13171)	18.6 ± 6.79 (2330)	21.5 ± 7.70 (4853)	22.9 ± 7.99 (2024)	22.7 ± 8.15 (2953)	21.4 ± 7.26 (1011)	F=120.476 P<0.001
	≥ 80 years (1608)	18.9 ± 6.51 (298)	21.4 ± 7.67 (565)	22.9 ± 7.64 (236)	22.1 ± 7.89 (387)	23.9 ± 8.22 (122)	F=14.887 P<0.001

The numbers within the brackets present the sample size in the respective categories.

Table 1 shows the variation in HGS (kg) between different nutritional status categories of Indian older adults.

Table 2 presents multiple comparisons between different nutritional states as indicated by BMI categorization in terms of HGS (kg) in Indian older adults aged 45-59.

Table 2

Comparison between different nutritional states (categorized as per BMI) in terms of HGS (kg) in Indian older adults aged 45-59 years

Nutritional states being compared		Males		Females	
		Difference between means in respect of HGS (kg)	Significance level (P)	Difference between means in respect of HGS (kg)	Significance level (P)
Undernutrition	Normal	2.820	<0.001	1.329	<0.001
	At risk	4.310	<0.001	2.099	<0.001
	Obese I	5.085	<0.001	2.338	<0.001
	Obese II	6.112	<0.001	2.633	<0.001
Normal	At risk	1.489	<0.001	0.770	<0.001
	Obese I	2.264	<0.001	1.009	<0.001
	Obese II	3.292	<0.001	1.303	<0.001
At risk	Obese I	0.775	<0.001	0.239	0.169
	Obese II	1.802	<0.001	0.534	<0.001
Obese I	Obese II	1.028	0.011	0.295	0.093

In Table 2, significant ($P < 0.05$) differences in HGS (kg) with respect to different nutritional states in male Indian older adults aged 45-59 years have been observed. Whereas, out of 10 comparisons made between groups of female older adults, 8 cases have significant ($P < 0.001$) differences in HGS compared to their different categories of nutritional states.

Table 3 presents multiple comparisons between different nutritional states as indicated by BMI categorization in terms of HGS (kg) in Indian older adults aged 60-79.

Table 3

Comparison between different nutritional states (categorized as per BMI) in terms of HGS (kg) in Indian older adults aged 60-79 years

Groups being compared		Males		Females	
		Difference between means in respect of HGS (kg)	Significance level (P)	Difference between means in respect of HGS (kg)	Significance level (P)
Undernutrition	Normal	2.659	<0.001	2.866	<0.001
	At risk	3.639	<0.001	4.312	<0.001
	Obese I	3.809	<0.001	4.159	<0.001
	Obese II	2.659	<0.001	2.855	<0.001
Normal	At risk	0.980	<0.001	1.446	<0.001
	Obese I	1.150	<0.001	1.293	<0.001
	Obese II	0.0003	1.000	0.011	1.000
At risk	Obese I	0.169	0.954	0.153	0.965
	Obese II	0.979	0.011	1.457	<0.001
Obese I	Obese II	1.149	<0.001	1.304	0.093

In Table 3, significant ($P < 0.05$) differences in 8 cases for both males and females, where HGS (kg) differs with different nutritional states in Indian older adults aged 60-79 years, have also been observed.

Table 4 presents multiple comparisons between different nutritional states as indicated by BMI categorization in terms of HGS (kg) in Indian older adults aged 80 years and above.

Table 4

Comparison between different nutritional states (categorized as per BMI) in terms of HGS (kg) in Indian older adults aged 80 years and above

Groups being compared		Males		Females	
		Difference between means in respect of HGS (kg)	Significance level (P)	Difference between means in respect of HGS (kg)	Significance level (P)
Undernutrition	Normal	2.293	<0.001	2.535	<0.001
	At risk	3.738	<0.001	4.071	<0.001
	Obese I	3.049	<0.001	3.208	<0.001
	Obese II	2.187	0.085	5.060	<0.001
Normal	At risk	1.445	0.157	1.535	0.074
	Obese I	0.756	0.583	0.672	0.688
	Obese II	0.105	1.000	2.524	0.018
At risk	Obese I	0.688	0.855	0.863	0.660
	Obese II	1.550	0.478	0.988	0.804
Obese I	Obese II	0.862	0.861	1.852	0.187

In table 4, significant ($P < 0.05$) differences in 4 cases for males and 5 cases for females have been observed, which indicates that HGS (kg) differs with different nutritional states in Indian older adults aged 80 years and above.

Discussion

Grip strength reveals the scenario of prevailing health status and possible future outcomes among older adults (Bohannon, 2019). In this study, significant ($P < 0.05$) differences have been observed in HGS with changing nutritional status, as denoted by BMI in Indian older adults, both males, and females, categorized as aged 45-59 years, 60-79 years, and ≥ 80 years. In addition, it is noted that the HGS values were on the rise with the increase in BMI values save in the case of individuals aged more than 80 years. The results are in

tune with the study on the Taiwanese population, which showed that grip strength differs with different nutrition statuses in both males and females (Liao, 2016). The study is also in sync with the study on Indian older adults in ambulatory condition, which reveals that HGS differs with different nutritional status (Chevalier *et al.*, 2008). The present study findings align with a study conducted on Indonesians, South African, and Mexican older adults that HGS fluctuated with lower or higher values of BMI components, i.e., body height and body weight (Ramlagan *et al.*, 2014; Rodriguez-Garcia *et al.*, 2017; Pengpid & Peltzer, 2018).

BMI is a well-recognized indicator of prevailing nutritional status and has been found to be related to HGS in both Brazilian and Iranian older adults (Schlüssel *et al.*, 2008; Rostamzadeh *et al.*, 2020). Another study showed that lower HGS leads to the development of cardio-metabolic complications and diseases and also increases the risk of physical disabilities in American and Chinese older adults (Peterson *et al.*, 2017).

Proper grip strength depends on appropriate muscle function, which is influenced by the amount of muscle fibers in the body (Grishina *et al.*, 2019). Nutritional status is vital for proper muscle function (Bullock *et al.*, 2020). A deprived nutritional state or undernutrition in terms of lower BMI indicates loss of muscle mass, which in turn increases weakness and leads to deprived HGS (Sizoo *et al.*, 2021). Oppositely, higher values of BMI not only increase the risk of metabolic complications and comorbidities (Lee & Yim, 2021) but also increase fat mass in the body (Moltrer *et al.*, 2022) and inversely decrease muscle mass (Merchant *et al.*, 2021). Altered muscle morphology, in terms of adipose inflammation with increasing age, increases fatty infiltrations in the skeletal muscles, which in turn leads to inappropriate muscular strength and functionality (Li *et al.*, 2022) and may increase the chances of future disability, frailty, and multimorbidity among the older adults. Once people have ideas regarding the importance of nutritional status and its impact on hand grip strength, an indicator of physical frailty, the chance of suffering

from it reduces even to some extent; this can reduce the chances of older adults falling prey to ageism.

Conclusion

It can be concluded from the study results that HGS significantly ($P < 0.05$) differs with nutritional status denoted by BMI.

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Usability challenges of mobile health technologies developed for community-dwelling older adults : a scoping review

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ABSTRACT

Mobile health (mHealth) technology, using mobile and wireless devices to support medical and healthcare services, is a field with numerous benefits. However, there is a lack of strong evidence regarding its widespread use by older adults. This study addressed the usability issues of mHealth technologies developed for community-dwelling older adults. A scoping review methodology developed by Arskey and O'Malley was followed. Using keywords, a search of relevant literature published between January 2013 and September 10, 2023, was conducted through five databases. The review included twenty-two studies, which were summarised qualitatively. Two thematic

constructs and ten sub-themes were derived from an analysis of the selected studies, leading to practical recommendations for the effective design and development process of mHealth devices. These recommendations have the potential to significantly improve the quality of life for older adults, a cause we all care deeply about.

Keywords : Mobile health, mHealth, Mobile apps, Older adults, Elderly, Usability, User-friendly

Ageing is a natural part of life for human beings, leading to an increased chance of disease, deterioration, or loss of capacity. As stated by the World Health Organization, every country in the world is experiencing growth in both the size and the proportion of older persons in the population. By 2050, the world's population of people aged 60 years and above will double (2.1 billion), and 80 per cent of older people will live in low- and middle-income countries. (World Health Organization, 2022). This figure depicts the considerable difficulty of managing ageing for healthcare systems and families who care for elderly persons or older adults.

The elderly face enormous daily obstacles, such as poor balance, cognitive/memory issues, and difficulty performing Activities of Daily Living (ADL) independently. To support the self-management of the elderly while staying at their homes without being institutionalised, mHealth technologies have emerged. As defined by the World Health Organization, mHealth is the “medical and public health practice supported by mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other wireless devices”.

Mobile health technology helps older people maintain their daily activities and improve their well-being. Recent studies have reported the development of multiple mHealth applications (Apps) for facilitating various tasks of elderly persons, such as self-management of chronic diseases (Park *et al.*, 2016), self-care of asthma (Do *et al.*, 2015), medication adherence (Coleman, 2014), medication

safety (Tseng & Wu, 2014) and healthcare monitoring at home (Jecan *et al.*, 2017). Hence, parallel to the traditional (i.e., regular face-to-face) healthcare services, mHealth helps as a significant strategy to manage an ageing population's medical and health-related needs. Despite the numerous benefits of mHealth technology, the acceptance rate of mHealth by older adults in their real-life needs is comparatively lower than that of traditional health services (Meng *et al.*, 2019). Usability is a crucial factor that influences the acceptance of mHealth technologies by the elderly (Wang *et al.*, 2022). Usability refers to the user's experience and satisfaction when interacting with any technology-based product. To design and develop effective mobile health technologies for the elderly, the usability issues related to health must be addressed. Hence, the objectives of this study were to determine, analyse and summarise the current state of the literature on the usability challenges of mobile health technologies developed for community-dwelling older adults.

Methodology

Study Design: A scoping review was performed to outline the literature to understand the present practices and to build the evidence for guiding future directions. The framework developed by Arskey and O'Malley (Arskey & O'Malley, 2005) and later refined by Levac, Colquhoun, and O'Brien (Levac *et al.*, 2010) was followed, and reporting of the findings were according to the PRISMA extension for Scoping Reviews. The study protocol was pre-registered in Open Science Framework (OSF) Registries (Registration DOI <https://doi.org/10.17605/OSF.IO/FGVAM>). OSF registration is an optional feature for scoping reviews. Registration is considered best practice, as it helps to ensure that no other researcher conducts the same review.

Stages of Arskey and O'Malley Framework

Stage 1. Identifying the research question—After exploring the literature elaboratively, the following research question was identified: What are the usability challenges faced by community-dwelling older adults while using mobile health technologies developed for them?

Stage 2. Identifying relevant studies—Five databases, namely EBSCOhost, IEEEExplore, PubMed, Scopus, and Web of Science, were searched using appropriate keywords. The keywords addressed three components of the research question: (1) Population, which comprises older adults above 60 years of age; (2) Concept, which comprises usability challenges of mHealth technologies; and (3) Context, which comprises community-dwelling older adults and mHealth technologies. Keywords were searched using Boolean operators such as “AND”, “OR”, and “NOT”. Examples of keywords used are given in Textbox 1.

Textbox 1. Scoping review keywords

Population (Older adults above 60 years of age).

- older adult, elderly, senior citizen, geriatric, ageing, over 60, over sixty, 60 and over, 60 years, pensioner, retire

Concept (Usability challenges of mHealth technologies).

- usability, user experience, user-friendly, user-centred, user testing, experience, perception, perspective, effective, efficiency, challenge, problem, difficulty, design, issue, understandable, learnable, operable, satisfactory, ease of use

Context (Community-dwelling older adults and Mobile Health technologies).

- mobile health, mHealth, m-health, electronic health, eHealth, e-health, digital health, health informatics, health information technology, mobile applications, mobile app, health app, wearable device, tracker, mobile phone, mobile device, smartphone, cell phone, cellular phone, touchscreen, personal digital assistant, tablet, phablet, wireless device, wireless technology, telemedicine, telehealth, telecare, gerontechnology, gero-technology, community-dwelling, community residing, community setting, independent living, living at home, self-management.

The eligibility criteria for studies to be considered for the review were pre-defined. The inclusion criteria were studies that (1)

focused on mobile health technologies developed for use by community-dwelling older adults, (2) focused on eHealth technologies involving the use of mobile and wireless devices, (3) were published in the English language, (4) were published in a peer-reviewed journal, (5) were reported on participants/subjects aged 60 years and over, and (6) were published from January 2013 to September 10, 2023 irrespective of the study design type (qualitative, quantitative, or mixed methods research). The reviewers have decided on a period of 10 years, as with the advent of mobile phones and smartphones, their usage in the healthcare sector has also emerged. The exclusion criteria were studies that (1) focused on mobile health technologies being used for diagnostics/imaging or acute care of older adults, (2) focused on eHealth technologies not involving the use of mobile and wireless devices, (3) were not published in the English language, (4) were not published in a peer-reviewed journal, and (5) reported on participants/subjects aged under 60 years.

Stage 3. Study selection—The articles resulting from the keyword search were extracted from the five databases, and duplicate articles were removed using the EndNote software. Two reviewers independently screened these articles for their relevance to the research question, followed by consensus with the third reviewer.

Stage 4. Charting the data—A descriptive-analytical narrative method was used to extract and chart the data from the articles, which were finally selected in Stage 3 of the Methodology. A data-charting form was developed, including authors, year of publication, country where the study was conducted, study design, target users, sample size, sample mean age, and type of technology.

Stage 5. Collating, summarising, and reporting the results—Thematic constructs were derived from the qualitative analysis of the selected literature. Codes were used during this iterative process of qualitative content review to derive sub-themes and key themes related to the study's research question.

Data Analysis

Data analysis was conducted using descriptive statistics and qualitative content analysis of the selected literature (22 included studies). Results were reported using the PRISMA extension for scoping reviews (PRISMA-ScR) Checklist (Tricco *et al.*, 2018).

Results

Search and screening results: The database search resulted in 3932 articles; of these, the EndNote software removed 872 duplicate articles. Of the remaining 3060 articles, screened by reviewing titles and abstracts, another 2581 were excluded through independent review followed by the consensus of all the reviewers, leaving a total of 479 articles. The full text of 87 articles was not retrieved, resulting in 392 articles assessed for eligibility by full text. Another 370 articles were removed as they did not match the inclusion criteria. Hence, 22 the review finally included 22 studies (Figure 1).

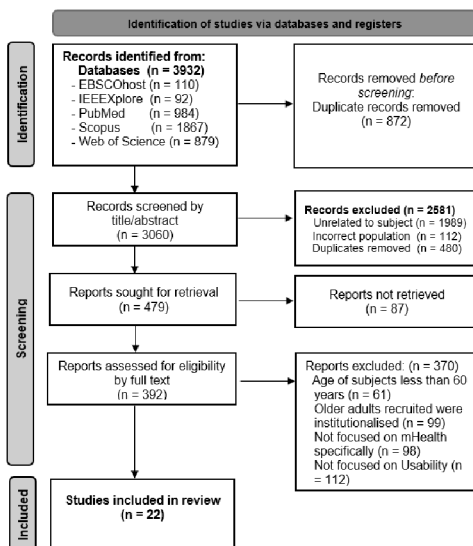


Figure 1. Flow diagram* of the study selection process

*Source: PRISMA Flow diagram for Scoping Review (Tricco *et al.*, 2018)

Characteristics of source documents: Of the 22 studies included, 10 were from Europe (Finland=1; Norway=1; Switzerland=1; Netherlands=4; Germany=1; United Kingdom=1; Austria, Italy, and Romania=1), five from America (Canada=2; United States=3), four from Asia (China=2, Pakistan=1, Malaysia=1) and three from Oceania (Australia=3). Figure 2 depicts the graphical representation of the country distribution of publications.

Figure 2. Country distribution of Publications

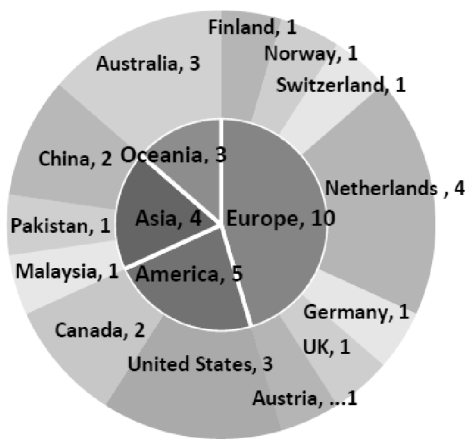


Figure 3 depicts the number of articles published by year. The articles included in the review were published between 2013 and 2023. Only 1 article was published from January 2013 to December 2014, after which the growth rate of publications increased and reached 10 articles from 2021 to 2023. This shows growth in the field of mHealth research.

Figure 3. Number of articles published by year

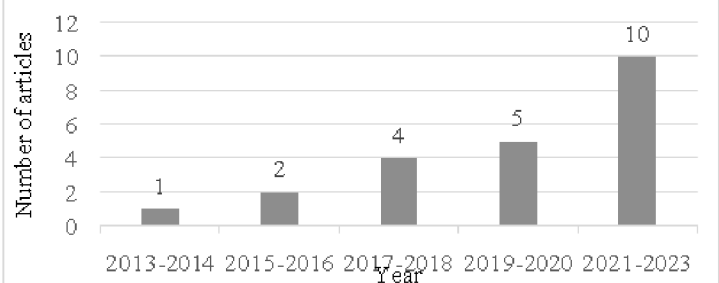


Table 1 outlines the description of the studies included in the review.

Table 1
Characteristics of included studies

Author(s) and Publication year	Country	Study design	Target users	Sample size/ Sample	age	Technology type
Airola E. 2021	Finland	Systematic review	Elderly living in Rural and Nonrural settings	31 studies	60 years	eHealth
Alsswey A and Umar IN, 2019	Malaysia	Case study	Elderly Arabs above 65 years	40 subjects	Not specified	Mobile applications
Awan M <i>et al.</i> ,2021	Pakistan	Systematic review	Elderly	53 studies	Not specified	Smart phone App
Bhattarai P <i>et al.</i> ,2018	Australia	Systematic review	Elderly with arthritic pain	4 studies	Not specified	Self-management Apps for pain
Bhattarai P <i>et al.</i> ,2020	Australia	Qualitative study	Older people with arthritis	16 subjects	Not specified	Apps for pain self-management
Chaudhry BM <i>et al.</i> ,2022	USA	Experimental study	Elderly with lower socio-economic status	25 participants	65 years	Tablet App
Fischer SH <i>et al.</i> ,2014	United States	Review	Community-dwelling elders	96 studies	Not specified	Health Information Technology
Fowe IE and Boot WR 2022	United States	Survey	Community-dwelling older adults	92 participants	60 years	Wearable and mobile technologies
Gao C <i>et al.</i> ,2017	China	Review	Older adults with diabetes	71 Diabetes apps	Not specified	Mobile applications
Garcia Reyes EP <i>et al.</i> , 2023	Australia	Qualitative-study	Elderly aged >65 years	22 participants	73 years	Telehealth and wearable devices

Holthe T <i>et al.</i> ,2022	Norway	Review	Elderly with cognitive impairment	14 studies	Not specified	Wearable devices and apps
Ienca M <i>et al.</i> ,2021	Switzerland	Qualitative study	Older adults aged 65 years.	19 participants	79.6 years	Digital health technologies
Jansen-Kosterink SM <i>et al.</i> ,2020	Netherlands	Observational study	Older adults above 60 years	41 participants	73.4 years	Mobile Application
Kim BY and Lee J 2017	Canada	Scoping review	Older adults with chronic disease	51 articles	Not specified	Smart devices
Matthew-Maich N <i>et al.</i> , 2016	Canada	Scoping review	Older adults with at least one chronic condition	42 articles	Not specified	Mobile health technologies
Merkel S and Kucharski A 2019	Germany	Systematic review	Older adults	26 studies	Not specified	Technological devices
Moody L <i>et al.</i> ,2022	United Kingdom	Qualitative syntheses	Older adults with chronic condition	61 studies	Not specified	Digital technology
Peek ST <i>et al.</i> ,2016	Netherlands	Longitudinal field study	Community-dwelling older adults	29 participants	Not specified	Information and communications technology (ICT)
Thilo FJS <i>et al.</i> ,2017	Netherlands	Qualitative descriptive study	Older people ≥ 75 years	22 participants	80 years	Body-worn fall detection sensor
Velciu M <i>et al.</i> ,2023	Austria, Italy, and Romania	Qualitative study	Older adults	30 older people, 32 caregivers	Not specified	ICT-based eHealth technology
Vergouw JW <i>et al.</i> ,2020	Netherlands	Qualitative study	Older adults above 60 years	19 participants	73 years	eHealth applications
Wang Q., <i>et al.</i> ,2022	China	Scoping review	Elderly individuals	96 studies	60 years	mHealth apps

Review findings: Two thematic constructs or key themes derived From the analysis of the selected literature (22 included studies) are (1) End-user and Clinician involvement and (2) User Interface technicalities.

End-user and Clinician involvement

The key theme of ‘End-user and Clinician involvement’ was derived from the following two subthemes that affect the usability of mHealth technologies among older adults:

End-user involvement

Usability refers to the user’s experience and satisfaction while operating any technology-based product. The end-user feels satisfied only when the technology fulfils the user’s needs. In the case of mHealth technologies being developed for older adults, the elderly are the most appropriate persons to identify their problem areas, and hence, their involvement is crucial in the development stage of mHealth technology (Matthew-Maich *et al.*, 2016; Merkel & Kucharski, 2019; Peek *et al.*, 2016, Velciu *et al.*, 2023).

Clinician involvement

The software developers who lack formal medical expertise and do not involve clinicians in the development process are generally unfamiliar with population-specific health issues (Gao *et al.*, 2017). Thus, insufficient information-sharing and knowledge transfer among stakeholders of mHealth technology (i.e., developers, clinicians, and end-users) is a challenge to successfully adopt these technologies. To overcome this, the involvement of both the end-user and clinician is important, along with the software developer, in the design and development process of mHealth technology (Ienca *et al.*, 2021; Fischer *et al.*, 2014).

User Interface related technicalities

The key theme of ‘User Interface (UI) related technicalities’ was derived from the following eight subthemes that affect the usability of mHealth technologies among older adults:

Comprehensibility

Of the 22 studies, 6 (27.3%) studies reported that the content of the mHealth tool developed for older adults should be comprehensible, i.e., simple, clear, and understandable, represented in the form of written instructions, pictures, graphs, audio messages, and video recordings (Airola, 2021; Alsswey & Umar, 2019; Bhattarai *et al.*, 2018; Gao *et al.*, 2017; Holthe *et al.*, 2022; Wang *et al.*, 2022).

Presentation

Of the 22 studies, 11 (50%) reported that the user interface of mHealth technology needs to be user-friendly. The health issues related to ageing interfere with the usage of mHealth devices. The reported usability challenges of the mHealth interface are the weight of the mHealth device, screen size, complexity of the menu on the display screen, font type, font size, colour contrast, size of the keys and gap between the keys (Airola, 2021; Alsswey & Umar, 2019; Awan *et al.*, 2021; Bhattarai *et al.*, 2018; Bhattarai *et al.*, 2020; Fischer *et al.*, 2014; Fowe & Boot, 2022; Gao *et al.*, 2017; Thilo *et al.*, 2017; Vergouw *et al.*, 2020; Wang *et al.*, 2022).

Operability

Of the 22 studies, 13 (59%) reported that the mHealth technology should be easy to operate and control. The interface should be easy to learn without a tutorial/training session and should allow the users to achieve their objectives without errors (Awan *et al.*, 2021; Chaudhry *et al.*, 2022; Fischer *et al.*, 2014; Gao *et al.*, 2017; Jansen Koste rink *et al.*, Ienca *et al.*, 2021; Moody *et al.*, 2022; Vergouw *et al.*, 2020).

Privacy and Trust

Of the 22 studies, 11 (50%) reported that the key reason older adults do not use mHealth technologies is concerns regarding privacy and trust. Older adults are unwilling to share their health information and personal details while using a mHealth device as they fear technological failures leading to the loss of stored information (Chaudhry *et al.*, 2022; Fischer *et al.*, 2014; Fowe & Boot, 2022; Garcia *et al.*, 2023).

Cost-effectiveness

Of the 22 studies, 7 (31.8%) reported that the mHealth technology's cost-effectiveness is a usability challenge, especially in the context of older adults. As older persons generally have financial limitations, they prefer the low cost of the technology (Airola, 2021; Awan *et al.*, 2021; Garcia *et al.*, 2023; Mathew-Maich *et al.*, 2016; Moody *et al.*, 2022; Peek *et al.*, 2016; Wang *et al.*, 2022).

Internet connectivity

Of the 22 studies, 2 (9%) reported that internet connectivity is one of the usability challenges while using mHealth technology, especially in rural and remote areas (Airola, 2021; Awan *et al.*, 2021).

Feedback from the clinician

Of the 22 studies, 2 (9%) studies reported that elderly persons feel a sense of connectedness and reassurance when they receive feedback from clinicians on their health issues, and this feedback may be provided through the mHealth device (Garcia *et al.*, 2023 Kim & Lee 2017).

Feedback from the technology/system

Of the 22 studies, 2 (9%) reported that mHealth technologies are effective when they provide individualised feedback, monitoring, and communication to the user. The system should provide instant and easily understandable feedback on any error the user is committing while entering data into the system (Fischer *et al.*, 2014; Gao *et al.*, 2017).

DISCUSSION

This scoping review available on aimed to explore and describe the findings and range of research related to the usability challenges of mHealth technologies developed for community-dwelling older adults. The key findings resulted in two themes and ten sub-themes derived from the qualitative content analysis of the 22 studies included in the review (Table 2).

Table 2
Themes and Sub-themes derived from Qualitative Content Analysis

Theme	Sub-theme
End-user and Clinician involvement	End-user involvement
	Clinician involvement
User Interface related technicalities	Comprehensibility
	Presentation
	Operability
	Privacy and Trust
	Cost-effectiveness
	Internet connectivity
	Feedback from the clinician
	Feedback from the technology/ system

Based on the review findings, the literature indicated recommendations for designing and developing mHealth technologies for older adults. These recommendations are summarised in Table 3.

Table 3
Recommendations for mHealth derived from Thematic constructs

Usability Facilitator	Recommendations
Technical support	Digital literacy training (providing knowledge to the elderly for using new technology)
Guided support	Preference for human contact may be accomplished through SMS/text messages from the coach.
Social support	Social connectedness with other users
Software and Hardware features of mHealth device	Spacing between icons, Large font size,

Legible font size, High colour contrast, Pictorial/graphical display of information, Easy to understand and operate, Software providing choice of language, Large screen size, Large touchscreens, Lightweight system protecting privacy, Supports voice control, Cost-effective, Seamless maintenance, Stable internet connection
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Implications for Future Development

The findings from this review have implications for all stakeholders, including researchers, clinicians, software developers, older adults, and their informal caregivers. In many of the review studies, it had been emphasised that the successful adoption of mHealth technologies by end-users depends upon the perceived value and ease of use by the end-users (Matthew-Maich *et al.*, 2016; Fischer *et al.*, 2014; Garcia *et al.*, 2023). Therefore, researchers, clinicians, and mHealth designers must consider software and hardware features of user interface design that are compatible with the needs, preferences, and activities of end-users, i.e., older adults. Developers should thoughtfully create a team with the capacity, including resources, knowledge, and expertise, necessary to support mHealth solutions and the unique requirements of the elderly.

Implications for Future Research

While this scoping review highlights the usability challenges of mHealth devices and summarises several recommendations for the design and development of mHealth technologies developed for older adults, there is a scope for exploring usability variations among types of mHealth devices such as wearable devices, mobile apps, wireless sensor networks, etc.

Study Limitations

There were a few limitations related to this study. Firstly, by the scoping review methodology, a quality assessment of the selected

articles was not done to exclude the articles, although all of them were peer-reviewed. Secondly, this scoping review addresses the usability challenges related to mHealth technologies on a broader aspect, whereas usability issues may vary slightly depending on the type of mHealth device. Thirdly, grey literature was not included. Articles considered for this scoping review were limited to articles published in peer-reviewed journals, thereby missing out on unpublished yet related information. Lastly, articles published in English were only considered for the review. Hence, relevant articles in languages other than English might have been missed.

Conclusion

This scoping review provides a descriptive map of literature on the usability challenges of the mHealth technologies developed for community-dwelling older adults. Additionally, the review summarises recommendations for the designers and developers of mHealth tools and devices. The findings of this study would facilitate the design and development of effective mHealth devices in such a manner that they are adopted by older adults in their daily living to achieve their health objectives, hence reducing the burden of Health Services.

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Understanding the Organisational Management and Type of Facilities in the Old Age Homes of Mumbai

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ABSTRACT

This study evaluated 15 old age homes (10 paid and 5 unpaid homes) in Mumbai to understand their organisation and management. It surveyed the facilities and administrations in these old age homes, which can become a base for the improvements required in institutional care for elderly people in cities like Mumbai.

Keywords : Institutional Care, Old Age Homes, Mumbai, Organisation, Management, Elderly

In Indian society, traditional practices have changed significantly due to the migration of children in the search for better employment, the increasing number of working husbands and wives, and their materialistic attitudes leading to the dissolution of the joint family system. The most dominant change is in the co-residence of children with their parents in old age, which is the leading cause of the lack of care and

concern for older parents. Without domestic support, less or no income and poor health, the aged are the most vulnerable population subgroup in the total population (Sudha, S. *et al.*, 2006). The number of aged persons seeking shelters like nursing homes, other than their traditional family homes, is rapidly increasing. This trend is driven by factors such as the absence of children, migration, lack of funds, poor health, differences in beliefs, lifestyle, incapability of seniors to make their own house, family migration, tendency to avoid responsibility of parents, childlessness, failed marriage, loneliness, physical dependence, instability, and abuse, underscores the urgent need for comprehensive strategies to improve elderly care in India. The grievances reported to various senior helplines, cases registered with the police, and several media stories about abuse, abandonment and adultery related to the takeover of property and other matters with seniors all point to the tendency towards forcing the seniors to be without shelter in the last phase of their life. Seniors undergoing these issues increasingly seek old age homes and institutional care to live the last days of their lives with quality care (Liebig P. & Ramamurti, 2018).

Originally, old-age homes were established in urban areas under governmental and non-governmental agencies to provide shelter and support to destitute seniors. However, at present, similar institutional care is a source of relief to numerous aged in our society who are either unwanted by their family or family are unfit to take care of them due to serious health issues or the elderly want to live an independent life with their privacy (Usha & Lalitha, 2016). As Sreevals and Nair (2001) emphasised, in the absence of a joint family system, the old parents are occasionally left with no choice but to join the old age home (Ibid). Studies conducted by Rajan and Dandekar in Maharashtra and Kerala independently also set that most of the old age people ended up in old age homes because of no one to take care at home and to live an independent, peaceful life (Rajan, *et al.*, 2003; Dandekar, 1996). In India, traditionally, there were old age homes for only destitute seniors built and managed by private charities or religious associations, but now the scenario is different. The government and

voluntary organisations have added to this need in recent times. They are completing their responsibility to establish institutions for the poor and destitute aged persons. Intergenerational co-residence has declined dramatically, and most aged persons now live either in single-person homes or homes comprising only a couple or a couple and their children. Despite the continuity of traditional family structures and morals that favour multi-generational homes, numerous countries of the less advanced regions are also seeing a similar shift in family and household composition towards lower families and household types. Family structures and living arrangements have often changed, affecting family members and kin relations (Kamiya & Hertog 2020).

In India, in the former times, it has been seen that when the government lagged in giving senior care, private services proliferated in the country to furnish senior care and support. For a price, lonely old people, their children and grandchildren far away, too busy or indifferent, who can indeed rent young people to give them company in our country, keep caretakers and nurseries to take care of them at home or eventually go live in old age homes. Numerous seniors in the country live in old age homes away from their families (Singh *et al.*, 2017). Particularly in big metropolises like Mumbai, Delhi, Chennai, Bangalore, etc., although there are not enough old-age homes and many affordable institutions are fully occupied by the senior inmates, numerous of them on the waiting list. It is a wrong notion today that only those seniors live in old age home who have been abused or tortured in the family or are destitute with no one around to take care of live in old age homes. However, old-age homes are also preferred by those seniors who want to make it their home and stay in a peaceful environment away from the politics of family (Raju, 2014). Numerous families or seniors prefer old age homes with three-to-five-star amenities with all possible comforts of their own house or, indeed, further than that, are too costly to afford. However, similar stories of luxury and adequacy of institutions are rare. Most old-age homes are not in good condition and are not appropriate enough for living the good life; cleanliness, food, and health facilities are not up to the mark and are

substantially meant for destitute seniors. There is a growing demand for old age homes in our country, with children not able to support seniors living in another city or abroad or elderly who are incredibly ill. However, the traditional forms of care available to aged generations are in trouble. There is a failure to address the ageing issues in developing societies like ours (Datta, 2017).

There is a growing demand for old-age homes throughout the country. A disproportionate number of resources are available for seniors with long-term disabling conditions, which frequently leads to high-cost technology. Families under pressure face household and complex processes of taking care of ailing seniors, putting pressure on the institutionalisation of seniors who need expensive care. Social and geographical mobility leads to situations where children become unfit to give the necessary care, and they believe that senior care institutions are the better options for giving proper attention and care to their senior family members. Therefore, seniors' most important needs are frequently overlooked, which include proper care and support in terms of health and nutrition, as well as social, profitable, and psychological requirements. They are also not handed comfort and support in times of anxiety, loneliness and helplessness (Kalache, 2017). Integrated Programme for Aged Persons (IPOP) and The Maintenance and Welfare of Parents & Senior Citizens (MWPSA) Act of 2007 has established the governmental recognition of this dilemma faced by the senior through the objectification of an obligation on the part of the government to support the establishment of further nursing homes, at least one in each region in the country (Liebig & Rajan, 2013).

Some state governments have tried to introduce the concept of public-private cooperation (PPP) in the management of old-age homes established by the state. They invited commercial NGOs with various resources, elderly citizen's associations and other legal realities to manage these institutions with a donation of recreating and non-recurring grants sanctioned by the state government. However, this has not been very successful, as there are numerous hurdles in the

process due to the differences in the work culture of government and non-government organisations. Some state governments appear to be reflecting on the need to meet other social protection programmes for dwellers in old age homes, like Old Age Pensions and old Age Health Insurance, etc., for old age homes (Datta, 2017). These are some meaningful initiatives to link old-age homes with other support systems, such as financial security, health security, and psycho-social security. The housing industry in the private sector, like the health care, health insurance industry and the hospitality or recreation industry, has begun to see the senior as an ever-expanding class of high-spending consumers and has rapidly surfaced as one of the biggest ‘providers’ of the senior population through old age assisted facilities (Leichsenring, K., 2019). These facilities are precious and beyond the reach of aged persons taking care and shelter in old age with their ever-decreasing inflows. In India, especially in big metropolises, people need a wide range of preventative, restorative and rehabilitative care among seniors, which must be of good quality. The specific environment in the old age home includes care, services, and support handed to the inmates. With acceptable nutrition, a well-balanced diet, care during old age, and applicable health care and psychological support, it is possible to help and control the common hazards of ageing, and the ageing process could be made healthy and pleasurable. However, if the surrounding environment is not habitable, it will also hurt senior health (Arokiasamy, *et al.*, 2013).

It is understood that while a lot needs to be done for our seniors, strategies have to align with goals to ensure dependable and comprehensive senior care so that the problems faced by elders are effectively addressed. Their actuality is not treated as a burden on society, but they retain their due status as mentors, guides, and active contributors to a country’s development and profitable growth. In this changing background, all stakeholders must understand and address the added need for care in old age and find new, practical and applicable means to care for aged persons. It could mean cooperation among various actors, from the existent to the family and community to the

government and private sector. In India, although there are devoted elderly citizen cells and devoted helpline figures for seniors, we need to go beyond these measures to ensure the safety and security of elderly citizens. Elderly Care becomes more applicable in India as social security and affordable healthcare of respectable quality are not accessible to most Indians. There is a need to have further community-based day-care centres for senior furnishing services similar to skill structure, financial and legal advice, entertainment, exercise and other ways of active ageing, with effective liaison with the public health system. Specific attention is demanded to make capacity in home-based and community-based care for seniors (Kurian, 2018).

In the family position, stronger intergenerational adherence should be a priority, while in the community position, more participation and involvement of the seniors are important. We could achieve this through varied alliances between the government and various NGOs concentrated in senior care. The government should increase the fund allocation to the ageing sector, and there should be a confluence of central and state enterprises, as well as private and voluntary enterprises, to achieve comprehensive development in the nursing home sector. Increased collaboration and mindfulness in this field will help mitigate the problems faced by seniors living in the nursing home across the country (Butts *et al.*, 2012). There is a massive demand for good quality nursing homes in metropolises, which are rare in number to meet this demand. There is a growing need to open new, good-quality nursing homes in our country.

Thus, it was realised that there is a need to develop strong content to plan applicable and timely intervention strategies to deal with seniors' problems and ensure a better quality of life in Old Age Homes in Mumbai. It will help in understanding the needs of the elderly living in different old age homes and the scope of improvement in the management of the old age homes. This study evaluated the organisation and management of old-age homes in Mumbai. It surveyed the facilities and nature of administrations in these old age homes to

understand the improvements required in the institutional care for the elderly in cities like Mumbai.

Objective of the study

To understand the overall organization, management and type of facilities in Old Age Homes of Mumbai

Method

The study area for this research was Mumbai. The management personnel from different old-age homes in Mumbai were studied. The study was conducted only on old homes within the limits of Mumbai. Thus, old-age homes in Mumbai's western, eastern, and harbour suburbs have become part of the study. This study interviewed 15 management personnel from 15 selected old age homes in Mumbai to get detailed information about the study's objective. It included in-depth interviews using a specially designed questionnaire, a combination of open-ended and close-ended questions. This study also involved the careful observation of the study area. A list of old age homes in Mumbai's regions was drawn from offline and online resources. The researchers and the authorities contacted the old-age homes and spoke to them through individual meetings. The approval for conducting the study was taken by explaining all the significant aspects involved in the research. The study was conducted in only those institutions where the approval was granted, and those areas were left where there was non-cooperation, unavailability, or inaccessibility to conducting the research. Then the questionnaire was filled by interviewing the respondents individually.

Findings

Building an old age home requires careful planning and, most importantly, sensitivity and imagination regarding the ageing process and ageing issues. According to the management and caregivers of old age homes, it is a very challenging task to manage an old age home and the elderly living in it. These caregivers' intense willpower and dedication are the backbone of the care provided, ensuring that

each minute aspect and requirement of the elderly is looked after with utmost care and compassion.

Different categories of old age homes are present in Mumbai, each providing facilities depending upon the charges they take. This variety ensures a suitable option for every elderly person, regardless of their financial situation. Free old age homes are meant for destitute elderly, those who are living on places like roads, railway tracks, temples, pavements, gardens, etc., as nobody is there to support them. They find shelter in such homes in poor conditions with fundamental amenities for survival for the elderly, but for the destitute elderly, they are no less than a boon. Partially paid or low-paid old age homes provide decent facilities, but much improvement is required; they are still not respectable enough to live in, but the elderly are living there since they do not have many other options available in that range. Highly paid old-age homes provide excellent services but charge enormous amounts for these facilities. These old-age homes can be afforded only by those elderly who are financially strong, have financial support from children living in India or abroad, have good jobs or businesses in the past, or are getting excellent pensions. In such old age homes, an old person gets a sense of home away from home and many facilities more than their own home. However, there are only a few, and the intake capacity is very low.

The first and foremost thing that was given attention by the old-age homes while setting it up was the design of the building, which was designed considering the residents' differential needs. This careful planning ensures that the resident's physical, safety, and psychological needs are met, providing them with a comfortable and secure living environment. It catered to the physical needs of the residents like sleep, rest, food, pure air, pure water and a clean environment; safety needs: safety inside the old age home, avoidance of pollution, accident, health, abuse and so on and finally the psychological needs: experience, privacy, activity, togetherness etc. The land chosen for housing an old age home was kept in mind, and it should not be in a crowded or congested locality or a secluded or isolated area. It must be well

connected by roads found in almost all the old-age homes in Mumbai. This enabled the residents, workers, visitors and all others to have easy access to and from the old age home.

Around 60 per cent of old age homes under study were private 60.0, and 40.0 per cent were set up by other institutions like Christian missionaries, charitable trusts, etc. No government nursing home was part of the study. All of them were registered institutes. Around 60 per cent of them were unpaid facilities, and 40 per cent were paid facilities. On asking about the time consumed in the admission process, 13.3 per cent of old age homes mentioned it to be one week, 46.7 per cent of them said it takes three weeks, and 40 per cent of them reported it takes more than three weeks for the inmates to get admitted. When asked if the institute maintained the waiting list, 40 per cent of them said yes in response. This waiting list was generally maintained for those elderly still waiting to get a place to stay in an old age home. In any case, if someone left or cancelled the admission or management cancelled the admission, the other person waiting could join in that vacant place. Around 26.7 per cent of them used to take the admission fees monthly, 20 per cent of them take it quarterly, 26.7 per cent of them take it half yearly, and a similar per cent of them take it annually.

When management was asked about the source of finance for day-to-day functioning, old age homes mentioned various sources 11.1 per cent of them said that it is a grant, 25 per cent owned funds, 33.3 per cent owned funds, as well as public contributions and 30.6 per cent other sources. Thus, funding from own funds and public contributions was the highest for running the old age homes. The central staff found in the old age homes were chairperson, manager, warden/caretaker, housekeeping staff, catering staff, maid/peon, doctor, and nurse, which were there in almost all the old age homes apart from it in the good old age homes especially which were paid ones had the other significant staffs like clerks, cashiers, welfare officer, Gardner (mali), psychologists, counsellors and others as well. The work of the staff was judged by the satisfaction the residents used to share during their stay in the home. The employees were trained in the ways of

managing old age home services on topics like kind mentality, compassion, firmness, sincerity, willingness to work in a team, good listening skills, concern, patience, endurance, empathy, good physical and mental health to keep elderly happy and contented. Employees were recruited for entering an old age home job based on the following subjects and skills: elderly management, Sociology, Psychology and Biology of ageing, diseases of old age and their management, old age care, pressure sores and bed sores. geriatric medical care and old age care geriatric counselling. Terminal/end of life/palliative/dementia care, death and dying, food management, finance management, personnel management, human relations, public relations, conflict resolution, updates of MWPS Act 2007 and Rules 2009, UN Declaration of Rights of Older Persons and all the significant policies and programmes of the Government of India. In addition, there was at least one or more staff members who had basic training in palliative care/dementia.

There were specific criteria for giving admission to the elderly in a few old age homes. Some were meant for only men, around 6.7 per cent, some for women 10 per cent, 33.3 per cent used to give admission to both men and women and 50 per cent of them had aged as the main criterion to give admission. The other criteria for giving admission to old age homes were those who were able to take care of themselves and were financially independent 14.5 per cent, not able to take care of themselves and financially dependent on others 21.7 per cent, those who were destitute and had no one to care 13.0 per cent, must be physically and mentally healthy 18.8 per cent and not physically and mentally healthy 15.9 per cent. When asked about the admission procedure followed for giving place to elderly in old age homes, some of the major ones are by interviewing the elder person, which is 11.8 per cent, by interviewing the family members 11.8 per cent, interviewing both elderly and family members, which is 13.2 per cent, by recommendation from the NGO around 17.6 per cent, referred by someone 16.2 per cent, by visiting the elder person's home 7.4 per cent. Significant documents required at the time of admission are

passport-size photos of the applicant, ID card of the applicant, health certificate from the hospital, age proof certificate of the applicant, address proof of the applicant, and address proof of family, relatives or guardians.

All the old-age homes used to do medical examinations during the admission process. Residents of the home were selected using the procedures stated by the Maharashtra government. This included seeking applications from management at appropriate intervals for elderly desirous of living in old-age homes. Senior Citizens desirous of residing in the old age homes could also send an application letter to the home, which was countersigned by his or her caregivers or relatives, or call the old age home and come for a visit. This did not include and applies to the police or voluntary agencies from bringing an abandoned senior citizen to the home or organisations and NGOs referring and sponsoring senior citizens in good faith to old age homes. Illiterate and infirm senior citizens might be admitted without formal application if the higher authorities were convinced that such a person badly needs shelter. An applicant suffering from some disease was first treated in a hospital and could be admitted on the production of a fitness certificate from the treating doctor. New entrants were admitted after interviews with the admission seeker and family members. If needed, a visit to the applicant's home was done. In case of denial of admission, the applicant was informed about it and the matter was recorded in his application for possible future reference. If urgent, the applicant was recommended to another similar institution for admission, and the elderly person was referred there. Applicants newly admitted were asked to take a bath and clean themselves. Those who came with unruly hair were required to do the necessary cropping of the hair, and the institution bore the expenses. They were given clothes that were new or cleaned by the institution. On admission, each resident was given the following items to use in the home: All details about the new entrant, as required in the Admission Register, were entered. The Applicant was required to bring the necessary documents and ID card on the day of admission.

The newcomer explained the workings of the institution, including the rules and regulations in operation, ways/patterns of behaviour towards other residents and officials, rules to be observed, and regulations to be followed. The newcomer used to be formally introduced to the other residents at the management's first meeting by the institution's head. The newcomer was strictly watched/observed. The fact that he/she obeys the institution's rules and did not engage in any activity against it should be appropriately noted. If they create more trouble, then management could also cancel their admission. The resident was subjected to a medical examination within seven days of admission. The objective was to assess the mental and physical state of the person. However, in the case of those coming for admission with some disease, the person was treated by a competent doctor first, and only after he/she produced a fitness certificate issued by the doctor should he/she be admitted to the home. The permission of the resident in writing was necessary for medical examination. This examination was conducted in a hospital with modern clinical equipment or in a medical college. The hospital authorities used to conduct the medical examination at the request of the Warden of the Home. The certificate thus obtained was kept as part of the resident's medical file. If any morbidity was found during the examination, necessary treatment was arranged for the resident.

Management said that there was a specific procedure followed during the death of an inmate. After the death of the inmate, the nearest relative was informed that if they did not come, arrangements were made for the cremation, and cash, money and personal belongings were handed over to the family. Around 15.4 per cent of the old-age homes said they faced various issues in doing the last rites of residents, but the majority said there were no such issues and that the cremation process went smoothly. The major issues which were involved in performing last rites for elderly residents in old age homes reported were limited family involvement due to distance or busy schedules, navigating diverse religious customs, lack of designated space for rituals, emotional distress among staff and other residents, potential

conflicts over decision-making, concerns regarding the proper handling of personal belongings and final arrangements; all while ensuring respect for the deceased and their family's wishes in a sensitive environment etc. If a resident died in the home, the warden immediately reported the matter to the medical officer in charge of the institution. Only after the medical officer certified that the death was natural should the warden take the following steps. If the medical officer certified and confirmed natural death, the dead body was removed and kept respectfully. All residents, employees and other individuals and organisations were given opportunities to pay their last homage to the diseased. Relatives of the diseased were contacted at the address given by the diseased at the time of admission to the institution and asked to come to the institution and receive the dead body. If the relatives agreed to receive the dead body, this could be done under proper receipt. If the relatives did not come forward to receive the dead body, the authorities took the steps, taking into consideration, the desire of the diseased on the disposal of his body or as per his religious customs. This was the responsibility of the old age home.

The Death Certificate issued by the concerned medical officer was kept in the file of the old age home. The matter of death was intimated to the registrar of births and deaths. If the resident dies in the hospital while in treatment, the old age home waits till the hospital authorities hand over the dead body to the old age home. Thereafter, the dead body was brought back to the institution. If an unnatural death occurred in the institution, whether by suicide, accident or under suspicious circumstances, the matter was immediately reported to the Police in writing. Nobody was allowed to enter the spot and touch the dead body until the police arrived. In such cases post mortem and legal formalities became necessary. The institution used to give all help to the Police to take necessary legal action. The matter of unnatural death was consistently reported to the relatives of the diseased and the local authorities. When the legal proceedings were over and the dead body was released, it was received, and the relatives were requested to collect the dead body. If they did not accept the dead

body, the dead body usually was disposed of as per religious beliefs. If the resident died under natural conditions, the warden took possession of belongings and prepared a list of them which two witnesses attested. A certificate was obtained from the appraiser, and thereafter, the gold ornaments were sealed in the presence of witnesses and kept in safety. Details of the items of gold ornaments and money were entered in the Security Register. The legal heirs of the diseased have the right to receive the articles belonging to them if they come to take them.

Around 66.7 per cent of the old-age homes provided transport facilities for the inmates to travel to places they wanted to visit, for weekend visits, shopping, the hospital, and various other reasons. Old age homes had a multi-purpose vehicle for general use and for transporting ill residents to the hospital, in an emergency, or anywhere they wanted. If no vehicle was available, local transport agencies made arrangements to make a vehicle available on call. All of the old-age homes had sewerage, water, and electricity provisions for the convenience of elderly inmates and their comfortable living. Around 73.3 per cent of old age homes provide the facility of washing machines for washing clothes. Two techniques were commonly used in homes for washing clothes: hand washing and machine washing. In some of the homes, the housemaids used to clean and dry the clothes either by machine or by hand; some of the elderly were capable washed the clothes by themselves and also the inmates helped each other in washing and drying the clothes sometimes, especially in unpaid old age homes. This communal approach to laundry fosters a sense of togetherness and mutual support among the residents. Around 40 per cent of old-age homes have separate rooms for prayer/ worship, while the rest don't have any such provision.

Around 53.3 per cent of old age homes provide four meals a day for elderly residents, 33.3 per cent provide five meals a day, and 13.3 per cent provide three meals a day. Around 53.3 per cent of the old age homes provide vegetarian and non-vegetarian food, and 46.7 per cent provide only vegetarian food. Old age homes provide food for

inmates as per different criteria like 11.5 per cent of them see the preference of inmates, 21.2 per cent of them know the availability of food, 21.2 per cent see the cost of food, 25.0 per cent keep in mind the nutritive value of food and 21.2 see the ease of preparation. The residents were tried to be given tasty and nutritious food. Their age, health condition and personal preferences were considered, ensuring their individuality was respected. The residents would become happy and content if the food quality were good and less spicy. Food was prepared in a manner that was readily eatable, and old age homes tried to give a variety of healthy food items at correct time intervals and in adequate quantity. To make food healthy, it attempted to make it balanced and nutritive. There were fixed hours for food supply, considering the residents' differential preferences in food matters, differences in their health conditions and changes in climatic conditions. Efforts were made not to waste food.

Around 60 per cent of the old age homes mentioned that sweeping and mopping of homes are done daily, 26.7 per cent of them do it on alternate days, and 13.3 per cent do it weekly. If we look at cleaning toilets and bathrooms, 86.7 per cent of them do it daily, 13.3 per cent do it on alternate days, and none do it weekly. The toilets and bathrooms were made suitable for people with arthritic legs, obese bodies, failing vision, etc. Poorly planned and maintained toilets and bathrooms could become the cause of accidents in old age homes, which was found in some old age homes with free facilities of stay. There were separate bathrooms and toilets for men and women in almost all the old age homes. The toilet in old-age homes was generally of European type, which was convenient for older persons to use; it was found in most medium-sized and luxury old-age homes but less in free old-age homes. The wash basins were so high that a wheelchair could quickly be settled. In some old age homes hygiene was given utmost importance. Three levels of hygiene were visualized individual hygiene, institutional hygiene and environmental hygiene. Residents of old age homes come from different walks of life and have different senses of hygiene. To change them was very difficult. Old age homes found it necessary to

educate them in ways that contribute to hygienic life. All the old age homes do the pest and insect control after more than a week, 80 per cent of old age homes do the disposal of garbage daily, and 20 per cent of them do it on alternate days. Around 73.3 per cent of old age homes mentioned that the clinic or hospital facility is nearby or in a reachable distance to the old age homes. 26.7 per cent have the hospital facilities inside the premises of old age home.

When asked about the charges taken for the medical treatment of inmates' 60 percent of the old age homes take the fees for the medical treatment and 40 percent of them bear the cost by themselves and does it free. The major local facilities around most of the old age homes are markets, banks, health clinics/hospitals, post offices, parks/gardens, bus stands, taxi stands, auto/cycle rickshaw stands and other facilities. When asked about the type of accommodation provided to inmates' 39.3 per cent of old age homes provide dormitory type rooms, 32.1 per cent provide triple occupancy rooms, 21.4 per cent provide double sharing rooms, and only 7.1 per cent of them give the facility of single occupancy rooms. There were different types of rooms in an old age home. In a single room, the older person had complete privacy, sufficient storage space, and a sense of safety and in double or triple occupancy, there were most of the advantages of an individual room, and at the same time, it was economical too, but the old age inmates had to share it with two to three people. A dormitory was a big room where 6 to 10 older persons could be accommodated. Each older person was provided with a bed space, a storage space and maybe some sitting space. There were separate rooms and dormitories for men and women.

In some old age homes, there was an isolation room with a few beds for patients who were bedridden or needing end-of-life care. The ward also accommodated persons with contagious diseases and those who needed palliative care. A guest room for visiting relatives was provided in old age homes. It was located adjacent to a bathroom for general use by the residents and visitors. The hand staircase was easy to climb without a long flight of steps, with rails fitted on both

sides of the stair flights. Around 16.7 per cent of the old age homes had separate toilets and bathrooms for males and females, 35.7 per cent had both Indian or western style toilets, and 19.0 per cent only had Indian-style washrooms. The good old age institution trained the staff to follow the rules of behaviour on hygiene. Bathrooms, toilets, kitchen, dining room, dormitories, veranda, staircases and all the premises, including the compound, were channelled through the drainage and septic tanks. In regards to the safety and security measures for the elderly, 19.1 per cent of them have 24-hour security guards, 31.9 per cent of them have fire safety kits installed, 17 per cent have unique bells for emergencies for elderly inmates, and 31.9 per cent have locker facilities for inmates to keep their valuables. Precautions were taken to avoid people trespassing into the old age home. For this, there were strong walls or barbed wire fencing and a gatekeeper at the gate 24 hours a day. Precautions were also taken on residents going out without permission. Verandas and balconies of higher floors were covered with grills to prevent possible jumping away.

Residents were not permitted to keep knives, weapons or other dangerous items in their possession. The movements of residents from the home and back home were watched. Care was taken to see that they did not bring any dangerous substances or items into the institution. Institutions for the old provided barrier-free movement in all places in the building. Bathrooms and toilets had non-slippery floors and handrails. Steps were avoided and ramps were provided in their place. Buildings having steps had the height of the steps adjusted to the comfort of the old. If there was more than one floor, the old ones were accommodated on the ground floor. If they had to be moved upstairs, then convenient ramps were constructed. Major recreational facilities available to inmates were television in 16.7 per cent, newspaper/ magazines in 19.2 per cent, bhajans/ kirtans, entertainment programs and radio in 9.0 per cent, trips/picnics, movies in 12.8 per cent, arrangement of sports and games in 14.1 per cent old age homes. Reading spiritual magazines, books and newspapers was an important

part of the indoor recreational activities of the inmates in the recreation room. There were facilities for outings as well. Important individuals were sometimes invited to give talks to the residents on various topics of interest to them.

All these old age homes provide the elderly with different types of entertainment to keep them interestedly occupied. Apart from recreation in the old age home, the elderly have also stretched their domain of entertainment outside the aged home by going on outings and visiting restaurants, parks, etc. occasionally. Leisure time activities preferred mainly by the elderly were making handicrafts, letter writing, listening to music, gardening, talking and discussing with fellow inmates or caretakers, reading, and indulging in religious practices regularly or occasionally. gardening, cooking, hobby classes, physical activities, yoga, evening walks, meditation, kirtan/ bhajans, and organizing management committees. Some elder lies were involved in social services for the benefit of the local community near old age homes, like providing tuition classes, hobby classes like painting, handicrafts making, learning music and playing instruments, etc. Birthdays and anniversaries of residents were celebrated. Seminars and participatory sessions to discuss issues of importance to senior citizens were also organized in some homes. Collaboration was made with nearby schools and colleges to enable students to spend time in community service with these senior citizens. In good old-age homes, the management staff involved the elderly residents in running the home by organizing them into committees such as catering, public relations, health care, promoting talent and hobbies, and a cultural committee. Many elderly inmates used to participate in the day-to-day activities of the home, which involved anything from cooking to maintaining the cleanliness of the home. Residents could also periodically organize celebrations of various festivals and social events. The resident's committee, elected by all residents from among themselves, was appointed by the warden through which residents could express themselves on various matters.

In regards to clothing-related services for elderly inmates, 25 per cent of the old age homes used to take clothes from outside as donations, 42.9 per cent did the purchasing of clothes, and 32.1 per cent of the clothes were given by family members of elderly inmates. The supply of clothes was made available by the homes in the majority of cases. Also, the homes accepted public contributions in this respect. All the homes tried to provide adequate clothing to the inmates except a few. Since the inmates belonged to different religions, and some liked to wear dresses according to their traditions, they could meet at fixed times and days only in 24.5 per cent of old age homes and not at other times. Inmates could go outside with permission to meet and stay with family, friends and relatives. Telephone contact was allowed in 30.6 per cent of old age homes, respectively, and relatives could stay with inmates only in 6.1 per cent of old age homes. A smaller number of families were very much connected to the elderly. Many elderlies used to go to meet and stay with their family members once or twice a month. They got gifts from the family members. Otherwise, destitute elderlies hardly got to see anyone and no one used to come asking about their whereabouts. Staff reported even such incidents where people came to take the elderly if they got to know that they were alive, to kill the elderly or to pressurise them for writing the property on their names. So, the management was very careful about sending the elderly with anyone or even if they used to send, they followed proper procedures before sending the elderly. This could bring a bad name to the old age home, and many times, it could become a criminal case.

Residents were encouraged to hold correspondence with their relatives as this strengthened their bond. Relatives also could correspond with them. Letters coming to the residents were promptly delivered to them. Parcels received by the residents through post or courier service were opened in the warden's presence after receipt. If any resident runs away from the institution for any reason reasons. The incident was supposed to be immediately reported to the institution warden. The warden immediately reports the matter to

the police, stating his/her name, address, age, body marks of identification, time of notice of the event, and a copy of the elderly photo kept in his/her file. The matter should also be reported immediately to the chairman of the managing committee. In case he or she is located and brought back to the institution, the officer used to take statements from the culprit and from the person who brought him or her. The elderly were produced before the police immediately and taken back after completion of the police formalities. He/she should be then produced for a medical examination. The Elderly are then put in a safe place, subjected to counselling and watched closely for a reasonable time. There were also facilities where inmates could help in daily work of old age homes like kitchen work in 23.3 per cent of old age homes, gardening in 25.6 per cent, washing clothes in 7.0 per cent of old age homes, cleaning in 20.9 per cent of old age homes etc.

Conclusion

Improving old age homes in India requires a multi-dimensional approach that addresses the diverse needs of senior citizens, ensuring their well-being, dignity, and quality of life. This approach involves policy reforms, financial support, infrastructural development, healthcare, and social engagement. These changes should be driven by a commitment to enhancing the dignity and quality of life of the elderly population. Integrating the needs of elderly individuals into the larger social and health framework of the country will lead to a more compassionate and sustainable system of elderly care. Several policy recommendations are for enhancing the condition of old homes in Mumbai. The government should introduce comprehensive standards for old age homes, covering infrastructure, hygiene, safety, healthcare, nutrition, and staffing. This ensures consistency in the quality of services provided. Regular inspections and audits of old-age homes are conducted to ensure compliance with national standards. Independent bodies can carry out these audits and result in transparency and accountability. There should be a provision for subsidising old-age home costs, especially for low-income families.

Government-backed financial support or subsidies can help make these services more affordable for the elderly, particularly in rural areas. Encourage the establishment of tiny, community-based homes that offer personalised care. These could be supported through government grants, tax incentives, and NGO partnerships. Every old age home should have a qualified nurse or caregiver available 24/7 and regular doctor visits to address health issues promptly. This includes managing chronic conditions like diabetes, arthritis, and heart disease.

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A Study of Social Problems of Elderly Patients

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ABSTRACT

This quantitative and descriptive study aimed to assess and compare the social problems of 30 senior citizens, ages varying from 55 to 75 years, of both sexes equal in number, selected by purposive sampling method from selected hospitals in Salem. Demographic data of the sample was collected by using a questionnaire. The Likert scale consists of 15 questions with three options, always, sometimes, and never, with the scores 1, 2, and 3, respectively, which were used to assess the social problems of the participants of this study. Along with the Likert Scale, a structured interview schedule was also used to determine the social problems of senior citizens in a selected hospital. This study also compared the association between the social problems of senior citizens and their selected demographic variables (marital status and payment). The finding revealed no significant relationship between the social problems of senior citizens and their demographic variables (marital status and payment). Based on the present findings, the male and female senior citizens were experiencing social

problems and had no significant association with selected demographic variables such as marital status and payment. However, there finding underscore the need for further research.

Keywords : Social problems, Elderly males, Elderly female

The research question that guided this study was: What are the social problems faced by male and female senior citizens in a selected hospital in Salem? The high and growing number of people above 60 poses Challenges to Indian society. Besides health, older people's problems include social and economic issues stemming from the lack of an organised social security system in many Western cultures.

For senior citizens, relationships within the family change and may even get strained. As children grow older, they have their interests and are more interested in their families. The generation gap manifests itself, and adjustment becomes essential to maintain a cordial relationship. As age advances, seniors, close relatives, friends, and other dear ones pass away. Children may move away or even migrate abroad. This generates a feeling of isolation and maybe a painful period in one's life.

Most individuals age 65 or older live alone, with a spouse, and sometimes with relatives. At any one time, fewer than 5 per cent of people in this age group live in institutions. This percentage increases dramatically with age. Forty-four per cent of all women in this age group were widowed because women live longer than men to marry men older than themselves and face different types of social problems in this society.

Understanding and addressing the social problems faced by senior citizens is paramount. This study aims to shed light on these issues, providing valuable insights for healthcare professionals, researchers, and policymakers.

The concept of "old" has changed drastically over the years. The assured food supply, changes in food production, better housing

conditions, and more progressive medical and sanitation facilities have contributed to population growth, a declining mortality rate, and substantial increases in longevity. An increase in the average lifespan without financial dependence and familial separation aggravates the social problems in old age (Murray and Zentner, 2001).

Erickson (1963) described the primary task of old age as being able to see one's life as having been lived with integrity. Without achieving that sense of living well, the older adult risks becoming preoccupied with regret and despair.

As various physical, psychological, and social changes occur in old age, providing exceptional care for older people becomes increasingly important. Historically, many women have derived a good deal of their self-esteem from their families- birthing them, rearing them, and being good mothers. Likewise, many men have achieved self-esteem through work-related activities- creativity, productivity, and earning money. With the termination of these activities, a loss of self-worth may result in an unsatisfactory social life.

It was found that 10 per cent of older individuals are victims of neglect or abuse. "Granny-bashing" is a prevalent and severe form of social violence (yelling, insulting, intentional & unintentional neglect, threats, isolation). The older adult is unwilling to disclose information because of the fear of retaliation, embarrassment about the existence of abuse in the family, protectiveness towards family members, and unwillingness to instate legal action. For this reason, detection of abuse in older people is difficult at best (Sadock & Sadock 2003).

Hospitals are crucial in promoting our health status from illness. Healthcare professionals, with their competitive skills, play a pivotal role in providing holistic care, addressing the physical, psychological, and social aspects of the patients. Among psychological treatments, counselling is an effective tool for combating the social problems of age. It can be best utilized by involving the family and older people without expensive machines. This study underscores the importance of healthcare professionals in addressing the social problems of senior citizens.

The study aimed to assess the social problems among senior citizens (both males and females) in a selected hospital.

Method

Sample

The sample consisted of 30 senior citizens (15 male and 15 female), selected by nonprobability purposive sampling technique, ages 55 to 75, admitted to Shanmuga Hospital Salem.

Tools Used

1. A questionnaire was used to collect all the relevant demographic information such as age, gender, education, marital status, number of children, employment status, monthly income, and living companionship of the senior citizens from the participants of this study.
2. A 3-point Likert scale assessed the social problems among male and female senior citizens. The Likert scale consists of 15 questions with three options: always, sometimes, and never, with scores of 1, 2, and 3, respectively. For the negative items, the scores are reversed and calculated accordingly.

Procedure

After obtaining written permission from the concerned authority, the study was conducted in Shanmuga Hospital, Salem. The data collection was done within the hospital premises. The sample was ensured confidentiality. The researcher selected the senior citizen to gather information according to the eligibility criteria. After explaining the purpose of the study, written consent was obtained from each subject. The questionnaire was provided to the samples. The data were collected by using the demographic tool and structured interview schedule. The researcher clarified the doubts the subjects asked in between, and the relevant data were collected from the samples. Each subject was allotted 15 to 20 minutes to fill in the appropriate data. The accuracy of the data was checked. Scoring and grading are done.

Findings and Discussion.

Table 1

Frequency and percentage distribution of samples based on their demographic variables.

n=30

S. No	Demographic variables	Male senior citizens		Female senior citizens	
		Frequency	percentage	Frequency	Percentage
1.	a. 55-59 years	4	27	3	20
	b. 60-64 years	5	33	4	27
	c. 65-69 years	4	27	6	40
	d. 70 & above	2	13	2	13
2.	Gender				
	a. Male	15	100	-	-
	b. Female	-	-	15	100
3.	Educational status				
	a. No formal education	5	33	5	33
	b. Primary education	5	33	5	33
	c. Secondary education	5	34	3	20
	d. Higher education	—	—	2	14
4.	e. Graduate				
	Marital status				
	a. Married	10	67	7	47
	b. Unmarried	1	7	1	7
	c. Divorced/ Separated	2	13	4	26
5.	d. Widow / Widower	2	13	3	20
	Number of the children				
	a. None	2	13	1	7
	b. One	2	13	1	7

	c. Two	6	40	4	26
	d. Three	4	27	7	47
	e. Four & more	1	7	2	13
6.	Employment status				
	a. Unemployed	6	40	10	67
	b. Retired	7	47	3	20
	c. Employed	1	7	2	13
	d. Business	1	6	-	-
7.	Monthly income				
	a. Nil	3	20	9	16
	b. Below 5000	8	54	5	33
	c. 5000-10,000	2	13	1	7
	d. Above 10,000	2	13	-	-
8.	Living companion-ship				
	a. Alone	3	20	1	7
	b. With son	7	47	6	40
	c. With daughter	2	13	4	27
	d. With spouse	3	20	4	26
9.	Diagnosis				
	a. Medical	11	73	9	60
	b. Surgical	4	27	6	40
10.	Payment				
	a. Self	3	20	2	13
	b. Family	1	6	11	73
	c. Company	1	6	-	-
	d. Insurance	10	67	2	14

Table-1 shows that, in males 4(27%) were belongs to 55-59 years, 5(33%) of them belongs to 60-64 years, 4(27%) were belongs to 65-69 years, 2(13%) were belongs to 70 years and above. In female 3(20%) were belongs to 55-59 years, 4(27%) were belongs to 60-64 years, 6(40%) of them belongs to 65-69 years, 2(20%) of them belongs to 70 years and above.

According to gender, 15(100%) of them were male, and 15(100%) were female.

Among males, 5(33%) of them had no formal education, 5(33%) had primary education, and the remaining 5(33%) of them had secondary education. In female among 15 samples 5(33%) had no formal education, 5(33%) had primary education, 3(20%) had secondary education and remaining 2(14%) were graduate.

According to marital status, In males among 15 samples, 10(67%) of them were married, 1(7%) was unmarried, 2(13%) were divorced/separated, and 2(13%) were widows/widowers. In females among 15 samples majority 7(47%) were married, 1(7%) was unmarried, 4(26%) were divorced / separated, 3(20%) were widow/ widower.

In number of children, males among 15 samples 2(13%) were having no children, 2(13%) having one child, 6(40%) having two children, 4(27%) having three children, 1(7%) having four or more. In female among 15 samples 1(7%) having no children, 1(7%) having one child, 4(26%) having two children, 7(47%) having three children, 2(13%) having four and above.

According to employment status, in male majority 7(46%) were retired, 6(40%) were unemployed, 1(7%) employed and 1(7%) doing business. In female majority 10(67%) were unemployed, 3(20%) were retired, remaining 2(13%) were employed.

Among monthly income, male 3(20%) were not having income, 8(54%) were having below Rs. 5000 as monthly income, 2(13%) were getting Rs.5000-Rs.10000, 2(13%) are getting above Rs.10000 as monthly income. In female 9(60%) were not having income, 5(33%) were getting below Rs.5000 and remaining 1(7%) getting Rs.5000 – Rs.10000 as monthly income.

In living companionship, among male 3(20%) were living alone, 7(47%) are living along with son, 2(13%) were living along with daughter, 3(20%) were living along with spouse. In female 1(7%) living alone, 6(40%) were living along with son, 4(27%) were living along with daughter, remaining 4(26%) were living along with spouse.

According to diagnosis, 11(73%) of males had medical cases, and 4(27%) had surgical cases. In females, the majority (9 (60%) had medical cases, and 6(40%) had surgical care.

In male majority 10(67%) were paid by insurance, 3(20%) paid by self, 1(6%) paid by family, 1(6%) paid by company. In female majority 11(73%) paid by family, 2(13%) paid by self, 2(13%) paid by insurance.

Table- 2

Mean, Standard deviation, and mean unpaired ‘t’ score on social problems of male and female senior citizens

N=30

S. No	Groups	Mean	SD	Unpaired ‘t’ value	Degree of freedom
1	Male	24	10.2	0.1 ^{NS}	28
2	Female	24			

NS – Not significant at P<0.05 level; table value=2.05

Table 2 shows that the mean score of male and female senior citizens was 24, respectively, and their standard deviation was 10.2. The unpaired ‘t’ value 0.1 was less than the table value 2.05, which indicates that it was not significant at p<0.05 level of freedom

Table 3

Chi-square value for selected demographic variables such as marital status, payment and the social problems of senior citizens.

n=30

Demographic variables	df	Chi-square analysis	Table value
Marital status	6	8.79 ^{NS}	12.59
Payment	6	1.19 ^{NS}	12.59

NS - Non Significant at P<0.05 level

Data presented in Table 3 reveals that the calculated chi-square value(1.19) was lesser than the table value(12.59), indicating no significant association between the social problems of a senior citizen and their payment.

Conclusion

The study findings clearly revealed that the senior citizens had experienced social problems. Nurses and other healthcare professionals are responsible for caring for senior citizens who have social issues. For that, the nurse needs to educate the family members about the ageing process and the sociological needs of the old age population. Nurses are responsible for making old age individuals realise the ageing process and their sociological needs. Hospitals can use this study as a reference and plan for many interventions like health education and counselling. These interventions may help the senior citizens to reduce the social problems.

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