

ORIGINAL ARTICLE

A perspective on how to improve the quality of life of elderly people living in rural areas

Ruchita Ramesh Khandre¹, Abhishek Raut², Subodh Gupta³

¹Department of Community Medicine, Bharatratna Atalbihari Vajpayee Medical College, Pune, Maharashtra

^{2,3}Department of Community Medicine, Mahatma Gandhi Institute of Medical Sciences, Kasturba Health Society, Sevagram, Wardha, Maharashtra

CORRESPONDING AUTHOR

Dr. Ruchita Ramesh Khandre, Assistant Professor, Department of Community Medicine, Bharatratna Atalbihari Vajpayee Medical College, Pune, Maharashtra 411011

Email: ruchakhandre@gmail.com

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ABSTRACT

Introduction: We are going to witness the demographic shift with the predictable trends of population ageing and thus need to understand healthy ageing. This study was aimed to understand factors that influence the quality of life (QOL) of the elderly. **Methods:** This was a qualitative study conducted in 4 selected villages including males and females of age group > 60 years of age. 20 elderly individuals and 10 elderly individuals were chosen for a free listing and pile sorting exercise respectively. Smith's index was calculated for a free listing. Multidimensional scaling and cluster analysis were conducted to do pile sorting of data. Data were analyzed using Flame v1.2 and Anthropac. **Result:** During free-listing, 54 salient items were identified. Financial stability, healthy living, self-sufficiency, and work engagement were the most frequent responses that came from the study subjects. 25 salient items that were repeated in the free-listing exercise were included for the pile-sorting. The piles generated ranged from 3-12. Later, 25 perceived items (factors) for improving quality of life were clustered into 5 groups (Role of harmonious family, healthy ageing, daily schedule activity, leisure time and external support). **Conclusion:** The elderly recognized that a harmonious family, healthy ageing, daily schedule with leisure activity, and Government support can all improve their quality of life.

KEYWORDS

Pile Sorting, Free Listing, Elderly, Quality of Life, Rural

INTRODUCTION

Introduction: Globally, the elderly population constitutes about 12% of the total population, which will have doubled to 2 billion, accounting for 22% of the worldwide population by 2050. (1) In India too, the size and percentage of the elderly population have been increasing in recent years and this trend is likely to continue

in the coming decade. (1,2) Population ageing is a dynamic process, demographers coined the phrase "old-age dependence ratio," which refers to the increasing elderly population. The high dependency ratio of the elderly reflects the considerable demand for care and support from working adults.(3) But, several elderly people are neglected, discriminated against, and rendered useless. (4) The elderly can make

significant contributions to society, but several kinds of issues impede their capabilities and affect their quality of life. As we understand, life expectancy has increased, the elderly should enjoy their additional years and enhance their quality of life. (QOL).

There are some services for the elderly but are neither accessible nor fully accepted by our society.(5) There is a need to understand and tackle this vulnerable group's medical and socioeconomic issues, as well as encourage healthy ageing with optimal quality of life.

Objective

To identify the factors improving the quality of life of the elderly from their perspectives.

MATERIAL & METHODS

Study design- This was an observational qualitative study including participatory research. The study used Participatory Learning Action (PLA) tools named free-listing and pile-sorting. Free-listing is an effective tool for rapidly understanding how people think about and describe a specific domain, and it is considered suitable for engaging communities and identifying shared priorities.(6,7) Individuals in a pile sort use a list of items pertinent to a specific subject and then group these items into related piles.(8) The purpose of this study was to examine whether there was any consistency in how participants grouped influencing factors related to having an optimal quality of life.

Study population- This study included elderly males and females (>60 years of age).

Study setting and Study period- This study was conducted for two months (Nov-Dec 2021) in selected four villages in Wardha district (Maharashtra)centra, which are also a field practice area of the medical college. All four selected villages cater population ranges from 2000 to 8000. Our institutional department operates fieldwork in all four villages including weekly clinics, participating in VHNSC (Village Health, Nutrition and Sanitation Committee) meetings, conducting school health, conducting health camp and many more.

Sample size and sampling technique- 20 elderly individuals and 10 elderly individuals were chosen for a free listing and pile sorting exercise respectively by purposive sampling technique. We purposely selected the elderly from the different four settings who communicated well and were present during our field work.

Method of selection

Inclusion criteria

- Apparently healthy individual
- An individual who gives consent

Exclusion criteria

- the elderly who was bed-bound
- had diminished hearing and visual sensations

Method of Data collection- 20 elderly for the free-listing exercise were chosen from the field practice area. Participants were asked a primary stimulus question to enumerate as many factors as they thought could improve their lives. The interviewer used to conduct face-to-face interviews, taking notes and compiling a list with the help of an assistant in the field. After collecting data from 15 elderly, the result was obtained. Later conducting five more exercises, we realized the saturation in the result. Thus, we stopped free-listing exercise in 20 elderly. The cards for pile-sorting were made up using top 25 Salient items/responses from the free list. Ten elderly people out of 20 were visited randomly, and pile sorting was done using those cards. The literate participants were chosen specifically for the exercise and asked to use a list of items pertinent to a specific subject and then group these items into related piles. During each pile sorting activity by a study subject, a photograph of the finalized piles was taken in order to compile the findings , which was necessary for the analysis part. The verbal informed consent was taken at the beginning of the study and the participants were made aware of the photographs of the final piles they would make.

Analysis- Free listing and pile sorting exercises were analyzed using Flame v1.2 excel based software (9) and Anthropic pilesort software (10) respectively to find out various factors to improve quality of life.

The freelisting analysis has three objectives: 1) to find the most salient items from multiple respondents' lists; 2) to offer only the terms on the list that the researcher believes are actually shared by the group or groups; and 3) to create a manageable, not-too-long list. Smith's S, or the salience index, is the most commonly used statistic for analysing freelists. This statistic takes into account both the frequency of an item on all respondents' lists and its rank order on these lists, reflecting the assumption that items mentioned early and frequently across respondents are the most salient.(6)

The goal of pile sorting is to understand a cultural domain or group cognition or "what goes with what". To accomplish this goal, we used multidimensional scaling (MDS) to create a spatial map of how items are related.(11) After the pile sorting exercise in the field, the text was prepared first, which consisted of the compilation of all participants and their arranged piles. Then the text was imported to the Anthropac software for analysis, including MDS and the generation of a cognition map. When evaluating an MDS picture, there are two things to look for: clusters and dimensions.(12) Clusters are collections of items that are more closely related to one another than to other items. When particularly tight, highly separated clusters appear in perceptual data, it may imply that each cluster represents a domain or subdomain that should be investigated separately. Dimensions are item attributes that appear to order the items

in the map along a continuum. The observed resemblance between items is supposed to be "explained" by the underlying dimensions. The implicit explanation of how the brain generates similarity judgments holds that things have varying degrees of quality, and that the similarity between items is determined by their similarity in scores across all categories.(12,13) Later the cognitive map generated in the Anthropac pilesort was exported to the document and the clusters were identified.

Ethical consideration- The current study was initiated only after approval from the Institutional Ethical Committee was obtained on 12 Oct 2019. The informed verbal consent was taken from the study participants before the study.

RESULTS

Sociodemographic details of all study participants are given in Table 1. A majority of the study participants were females (n=12). All study participants' age ranged from 60-72 years. There was a substantial variability in education: five participants had no formal education, seven had primary schooling, six had secondary schooling, and two had higher secondary schooling. The study participants included farmer (n=4), homemaker (n=5), retired (n=2) and others (who were not engaged in any kind of occupation) (n=9). Around half of the study participants belonged to nuclear family (n=12).

Table 1:- Socio-demographic details

Participants	Age/Gender	Occupation	Education (years of schooling)	Type of family
Participant 1	60/M	Farmer	2	Three-generation
Participant 2	65/F	Homemaker	2	Nuclear
Participant 3	67/M	Others	6	Nuclear
Participant 4	70/M	Retired	12	Nuclear
Participant 5	64/F	Homemaker	0	Three-generation
Participant 6	63/M	Farmer	4	Three-generation
Participant 7	60/F	Homemaker	5	Nuclear
Participant 8	67/F	Others	4	Three-generation
Participant 9	65/M	Retired	12	Nuclear
Participant 10	64/M	Farmer	0	Nuclear
Participant 11	68/F	Others	2	Nuclear
Participant 12	69/F	Homemaker	4	Three-generation
Participant 13	70/F	Others	7	Nuclear
Participant 14	70/F	Others	10	Three-generation
Participant 15	68/M	Others	0	Three-generation

Participants	Age/Gender	Occupation	Education (years of schooling)	Type of family
Participant 16	61/F	Farmer	7	Nuclear
Participant 17	61/F	Homemaker	0	Three-generation
Participant 18	69/F	Others	7	Nuclear
Participant 19	67/F	Others	0	Nuclear
Participant 20	72/M	Others	4	Nuclear

Free listing was conducted with 20 elderly to assess factors that they think can improve the quality of life. Free list of 54 salient responses with descending order of salience is shown in the table, with frequency, average rank,

Smith's salience value. (Table 2) Financial stability, healthy living, self-sufficiency and work engagement were the most salient responses that came from the study subjects.

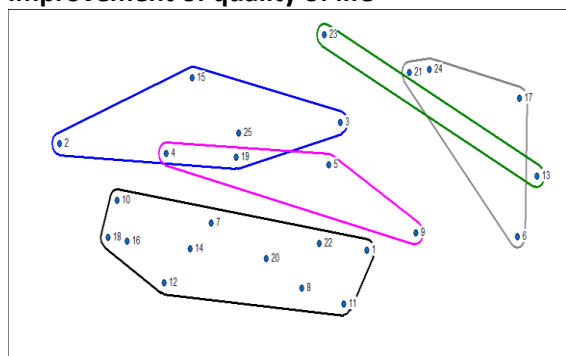
Table 2:- Free-listing Analysis: Factors for the improvement of quality of life (n=20)

Item's Name	Frequency	Average rank	Smith Index
Financial stability	8	3.625	0.210
Healthy living	6	1.833	0.256
Self-sufficiency	6	4.167	0.164
Engaging in work	6	4.000	0.179
Playing with grandchildren	5	3.000	0.171
Friend support	5	4.600	0.127
Happy family	5	3.000	0.160
Family support	5	2.800	0.178
Spending time with grandchildren	5	3.800	0.145
Care from children	4	3.000	0.129
Support from spouse	3	6.000	0.037
Support from children	3	3.333	0.090
Government schemes	3	3.333	0.088
Satisfaction	3	2.000	0.120
Absence of comorbidities	2	2.500	0.076
Independent children	2	3.000	0.058
Reading	2	3.000	0.065
Stable life of children	2	2.000	0.088
Emotional control	2	5.000	0.039
Own space	2	4.000	0.045
Entertainment	2	5.000	0.027
Respect	2	4.500	0.030
Free medicines	2	3.500	0.050
Creative activity	2	3.500	0.064
Positive attitude	2	4.000	0.050
Help from close ones	1	2.000	0.043
Emotional support and care from children	1	6.000	0.014
Future insurance	1	7.000	0.007
Health insurance	1	3.000	0.030
Relation with grandchildren	1	1.000	0.050
Availability of medicine	1	3.000	0.033
2 time meal	1	5.000	0.017
Peace at home	1	1.000	0.050
Children with no addiction	1	4.000	0.013
Support from grandchildren	1	5.000	0.010
Tension free attitude	1	6.000	0.014
Hobbies	1	2.000	0.045
Spirituality	1	6.000	0.025
Willingness to do things	1	9.000	0.010
No rude behaviour	1	2.000	0.044
Avoiding fights with family members	1	7.000	0.013
Accepting own mistakes	1	8.000	0.006

Item's Name	Frequency	Average rank	Smith Index
Good relation with daughter-in-law	1	1.000	0.050
Communication	1	2.000	0.040
No addiction	1	5.000	0.010
Physical activity	1	1.000	0.050
Healthy diet	1	2.000	0.040
Schedule	1	2.000	0.043
Adjustment with daughter-in-law	1	4.000	0.029
Adjustment	1	1.000	0.050
Less expectation	1	4.000	0.025
No burden to children and others	1	6.000	0.008
Thankfulness	1	3.000	0.030
Physically active	1	6.000	0.008

Pile sorting exercise was carried out with the participation of 10 elderly and analyzed by using visual Anthropac pile sort software. 25 salient items that were repeated in the free-listing exercise were included for the pile-sorting. The piles generated ranged from 3-12. Later, 25 perceived items (factors) for improving quality of life were clustered into 5 groups. (Fig. 1)

Fig. 1: - Cognitive map of the factors for the improvement of quality of life



Cognitive map of the factors for the improvement of quality of life (n=10)

Cluster 1: Important role of harmonious Family: (1,7,8,10,11,12,14,16,18,20,22): Financial stability, happy family, family support, care from children, support from spouse, support from children, satisfaction, independent children, stable life of children, own space, respect

Cluster 2: Healthy Ageing: (2,3,4,15,19,25): Healthy living, self-sufficiency, engaging in work, absence of co-morbidities, emotional control, positive attitude

Cluster 3: Daily schedule: (4,5,9,19): engaging in work, playing with grandchildren, spending time with grandchildren, emotional control

Cluster 4: Leisure activity: (6,17,21,24): friend support, reading, entertainment, creative activity

Cluster 5: External support: (13,23): Government schemes, free medicines

This study showed that the elderly considered the harmonious family role more important in their life (Financial stability, happy family, family support, care from children, support from spouse, support from children, satisfaction, independent children, stable life of children, own space, respect). The second finding as a cluster was related to healthy ageing (Healthy living, self-sufficiency, engaging in work, absence of co-morbidities, emotional control, positive attitude). The elderly in the study expressed that being self-sufficient without any comorbidity could allow them to be physically active and engage in work. The third finding as a cluster was related to their daily schedule (engaging in work, playing with grandchildren, spending time with grandchildren, emotional control). The elderly expressed that their time spent well in playing with their grandchildren, engaging in household chores. Keeping their negative emotions like whining and irritation aside, they could devote their time to their grandchildren and home responsibilities. The fourth cluster in the study finding was related to their leisure time (friend support, reading, entertainment, creative activity). Spending time with friends and engaging in fulfilling hobbies such as

reading, listening to music, watching dramas, painting, and wood crafting were some of the activities that afforded the elderly a sense of self-worth and happiness. The fifth cluster was about external support (government schemes, free medicine) from the government, which could help the elderly improve their lives.

DISCUSSION

The goal of the study was to figure out what factors the elderly considered would improve their quality of life. Many factors were reported in the research in a similar domain. Physical mobility, financial security, the environment, and care-related issues were all well-known factors.(14,15,16,17) Kar et.al, in their study, the QoL was significantly impacted by factors such as the sense of a lack of safety in the society, legal issues, changing family dynamics, discomfort and difficulty to adjust to changes in cultural attitudes and behaviour.(18) Another study focused on the perception of the elderly population on the quality of life which included both positive and negative evaluations by the elderly. They evaluated their quality of life positively in compared to others, based on social interactions, particularly with family and children, health, material situations, and activities. They emphasised dependency and functional limits, sadness, and fewer social interactions due to the loss of friends and family members when making negative evaluations. They believed that family, activities, and social contacts were the aspects that made their life meaningful. Different types of losses, such as illness and functional restrictions, were viewed as lowering quality of life. (19) A study (2003) stated, having health and enough money were the most frequent mentioned things by the elderly in respective of improves qualityof life.(20)

The elderly population is diverse for physical, social, and economic activity. With all other influences under controlled, a long period of good quality of life is possible.(19) A lack of driving force to healthy and good quality of life of the elderly in the society needs to get addressed.

Based on the finding following recommendations may help the elderly to improve their quality of life.

- Provision of social platforms to elderly or strengthening existing platforms like Kisan
- Manch (for farmers), Bhajan Mandal (Group singing devotional songs)
- Health promotive activities, nutritional education, health camp using the social platforms
- Engagement in intergenerational activities, Kutumb melawa (Family gathering) to strengthen the bond in the family at village level
- Generating awareness regarding their rights and available government schemes

The study focused on elements that can help improve the elderly's quality of life, which can serve as a baseline for developing different strategies. Another strength of the study was, the study participants were from different occupational backgrounds and types of the family so, there was a diversity in the study in relation to socio-economic status and family relations. The external generalizability of this qualitative study was limited. Another limitation of the study was the small number of participants. The study excluded bed-bound elderly people and those who had vision or hearing problems, so their perspectives on quality of life were not included.

The findings from the study can be useful for further research to get in-depth knowledge and understanding from the elderly by using other qualitative methods like in-depth interviews, focus group discussion.

CONCLUSION

The elderly recognized that a harmonious family, healthy ageing, daily schedule with leisure activity, and Government support can all improve their quality of life. We need to develop opportunities for community involvement, providing support in regular life and strengthening existing services and policies. Identifying gaps in existing services and the implementation, delivery, utilization should be addressed.

AUTHORS CONTRIBUTION

All authors have contributed equally.

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Nil

CONFLICT OF INTEREST

There are no conflicts of interest.

DECLARATION OF GENERATIVE AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The authors haven't used any generative AI/ AI assisted technologies in the writing process.

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