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# Survey of factors contributing to the happiness of older persons: A cross-sectional study of associated worries, anxiety, and depression

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## Abstract:

**BACKGROUND:** Old age is associated with a greater prevalence of worry, anxiety, and depression when compared to the younger age groups. Age-specific stressors and comorbidities accumulate and negatively impact the well-being of older adults.

**AIMS/OBJECTIVES:** In this context, we intended to study the factors influencing the happiness of older adults.

**METHODS:** It was a survey through a questionnaire of older adults attending a public health conference on old age-related issues. We inquired about what makes them happy, their worries, and physical and mental health issues. We also assessed their depression through the Patient Health Questionnaire (PHQ-9), anxiety through the General Anxiety Disorder 7 (GAD-7) scale, and quality of life (QoL) using a scale of 0 being worst to 10 being best.

**RESULTS:** Factors that brought happiness to older adults were family and friends (25.7%), social activities (28.6%), traveling and sightseeing (11.4%), reading and writing (11.4%), meeting people (8.6%), and having time for self (8.6%). Besides these, 22.9% reported they enjoy working. A clinical level of anxiety (GAD-7 score of 10 or more) was present in 17.2% and depression (PHQ-9 score of 10 or more) in 28.6% of older adults. The anxiety and depression scores were positively correlated ( $P < 0.001$ ) in the sample studied. There were no differences between genders related to concerns, health, finance, relationships, memory, needs for help, QoL, and severity of anxiety or depression.

**CONCLUSIONS:** Older adults could identify various factors linked to their happiness, despite various concerns and mental health issues. The information might help family, informal, and professional caregivers to support activities that contribute to the well-being and happiness of older adults.

## Keywords:

Anxiety, depression, happiness, older persons, quality of life, worry

## Introduction

Happiness can take multiple forms. It can be seen as simple enjoyment of daily tasks, or greater fulfillment within core aspects of one's life, such as job or family. For many, it will often be a mix of many components, and it will be a major pursuit in their lives. People generally

want to live a happy fulfilled life and one where the level of happiness is continually growing and preserved.<sup>[1]</sup> Unhappiness, on the other hand, is an emotion that people do not want to experience, and it brings with it several issues for psychological well-being, including elements of depression and anxiety.<sup>[2,3]</sup> It is important to recognize that being happy is not simply the absence of

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sadness or depression; being happy is past the point of neutrality, where one is actively enjoying events in their life.

The emotion of happiness has many positive benefits to a person. Positivity, with a good mental attitude, can aid someone in being more resilient to life's challenges, content in everything they have, full of life in their day-to-day living, and being more satisfied overall in life. Happiness also has positive benefits to physical health and has potential constructive ties to our body involving, for example, the neuroendocrine, inflammatory, and metabolic systems. It also is interconnected with an individual's lifestyle, such as with their diet and exercise, which have knock-on positive effects on their physical health.<sup>[4]</sup> Overall, these positive lifestyle factors can lead to lower morbidity, mortality, and largely an increased health-related quality of life (QoL) in the elderly.<sup>[5-7]</sup>

Nowadays, it is recognized that happiness is not related to simply luck; rather, it is something that can be trained with advice and therapy, and it is a state that should be achievable with everyone regardless of background,<sup>[8]</sup> and health status. Numerous factors can play into ascertaining the level of happiness that someone has. It can be difficult to objectively measure this due to the subjective nature of the topic. Despite this, several factors are known to contribute to happiness in a population, both in a positive and negative sense.<sup>[9]</sup> Examples of potential factors are gender, health, marital status, amount of poverty, various parenting styles during development, educational achievement, and work-related stresses.<sup>[10]</sup> Many specific risk factors for the elderly population may impact their well-being and happiness, e.g., retirement and financial issues, hormonal and physiological changes leading to age-related physical vulnerabilities, and health issues with increased levels of comorbidities. Besides these, many of them have the stress of the health of spouses, bereavement, abuse, and neglect. From this background information, this study was conducted to identify factors that are associated with the happiness of the elderly.

## Objectives

In this study, we specifically intended to identify factors that provide happiness in elderly individuals, as reported by them. We also aimed to screen for concerns and symptoms relating to anxiety and depression in this population, and overall QoL which might influence the happiness. It was expected that this information would be helpful to understand the needs of older adults and to inform clinicians and policy-makers.

## Methods

This study was conducted through a survey using a questionnaire. This was given to older adults who

attended a public health conference on old age health issues.

## Sample

The target sample was all those aged above 50 attending an old age health conference in Bhubaneswar, India, in August 2019. Individuals who did not wish to be included in the study or could not participate for other reasons were excluded from the study.

## Tools

We designed a questionnaire to collect the data. It contained items with both closed and open-ended questions. The items covered included sources of enjoyment, sources of happiness, concerns/worries, whether the concerns are related to health, finances, relationship with family, memory problems, mobility, visiting places, etc., and areas to describe their worries in further detail. We also queried if they wished for specific help to improve their lives and the nature of that help.

Furthermore, depression symptoms were screened using the Patient Health Questionnaire (PHQ-9);<sup>[11]</sup> which is frequently used to screen, diagnose, and assess the severity of depression. Using PHQ-9, depression can be categorized as none (0–4), mild (5–9), moderate (10–14), moderately severe (15–19), and severe (20–27) based on the PHQ-9 scores.

Alongside this, anxiety was screened for using the General Anxiety Disorder 7 (GAD-7) scale.<sup>[12]</sup> This scoring tool can indicate a grade of anxiety depending on the outcome score: none (0–4), mild (5–9), moderate (10–14), and severe (15–21). Both PHQ-9 and GAD-7 are available in the Odia language and have been used extensively in the region for various studies as screening instruments.<sup>[13,14]</sup>

The QoL was also inquired through scoring on a global self-rating scale of 0–10, where 0 is worst quality and 10 is best quality.<sup>[15]</sup>

## Data collection

The questionnaires and the assessment tools were self-rated by the participants. The first author explained about the study and provided the questionnaires. All the authors interacted with the elderly participants and helped in the data collection process.

## Ethics

The project was approved by the ethics committee of the Quality of Life Research and Development Foundation. Voluntariness of the participation, anonymity, and option not to participate were highlighted; no identifiable details were collected during the data collection.

**Statistical methods**

Data were entered into an Excel sheet and quality checked. Statistical analysis was done through the SPSS (version 28, IBM Corp. Armonk, NY). Missing data were not analyzed. Results were presented with percentages, mean, and standard deviation. We used Chi-square, Fisher’s exact test (FET), *t*-test, and Pearson’s correlation to analyze. The significance was determined at *P* < 0.05.

**Results**

There were a total of 35 respondents. There were 28 (80%) male and 7 (20%) female participants. Their average age was 62.1 ± 8.3 and 58 ± 9.3 years (*P* = 0.26), respectively.

**Enjoyment and happiness**

The participants were asked to provide examples of things that they enjoy in their lives; commonly reported factors are presented in Table 1. The most reported source of enjoyment was social activities (45.7%); following this were spending time for self (31.4%), working (22.9%), reading and writing (22.9%), and traveling (11.4%). Other noted activities include politics (8.6%), charity (5.7%), religious activities (5.7%), exercise (5.7%), and painting (2.9%). When the participants were asked to specifically identify areas in their day-to-day life that brought them happiness, the responses were similar, for example, social activities (28.6%), family and friends (25.7%), traveling and sightseeing (11.4%), reading and writing (11.4%), meeting people (8.6%), and having time for self (8.6%).

**Concerns**

Along with the above, participants provided a list of their most pressing concerns [Table 1]. Major concerns were related to health (60.6%), relationships (29.4%), memory (26.5%), finances (17.6%), and mobility (14.7%). Most of the participants (62.9%) responded saying that they did need general help in day-to-day activities, and not getting help when needed was a concern for them. This was noted by a larger proportion of females (85.7%) than males (57.1%) (*P* = 0.22).

**Types of help needed**

Next, we inquired about the types of help that the older adults would like to have, which would benefit them. The most requested help was general advice, making up 56% of all responses. The other types of help needed were help with social circumstances and friends (10.5%), moral support (10.5%), routine help for personal care and work (5.3%), psychotherapy (5.3%), and psychological/emotional support (5.3%).

**Anxiety**

Based on the GAD-7 screening tool to assess anxiety levels, in the total population, 25 (71.4%) participants had

no anxiety, 4 (11.4%) had mild, 3 (8.6%) had moderate, and 3 (8.6%) had a severe level of anxiety [Table 2]. The average total score for males and females was 2.96 ± 5.4 and 7.14 ± 5.8, respectively (*P* = 0.079); however, more females (71.4%) reported anxiety compared to (17.9%) males (FET: <0.05). A clinical level of anxiety (GAD-7 score of 10 or more) was present in 17.2% of participants.

**Depression**

Depression based on the screening by PHQ-9 was not present in 11 (31.4%) in the group; however, 14 (40%) participants scored to have mild depression, 7 (20%) moderate, and 3 (8.6%) moderately severe depression [Table 2]. Here, the average total

**Table 1: Common factors for concerns, enjoyment, and happiness in elderly**

Factors	n (%)
<b>Factors for enjoyment</b>	
Social activities	16 (45.7)
Spending time for self	11 (31.4)
Working	8 (22.9)
Traveling	4 (11.4)
Writing literature	4 (11.4)
Reading	4 (11.4)
Politics	3 (8.6)
<b>Factors for happiness</b>	
Social activities	10 (28.6)
Family/friends	9 (25.7)
Traveling/sightseeing	4 (11.4)
Reading and writing	4 (11.4)
Meeting people	3 (8.6)
Spending time for self	3 (8.6)
<b>Factors for concerns</b>	
Overall concerns	22 (62.9)
Health	20 (60.6)
Relationship	10 (29.4)
Memory	9 (26.5)
Finance	6 (17.6)
Mobility	5 (14.7)

**Table 2: Degrees of anxiety and depression**

	Male, n (%)	Female, n (%)	Total, n (%)	FET
<b>Anxiety</b>				
None	23 (82.1)	2 (28.6)	25 (71.4)	0.012
Mild	2 (7.1)	2 (28.6)	4 (11.4)	
Moderate	1 (3.6)	2 (28.6)	3 (8.6)	
Severe	2 (7.1)	1 (14.3)	3 (8.6)	
<b>Depression</b>				
None	9 (32.1)	2 (28.6)	11 (31.4)	1.0
Mild	11 (39.3)	3 (42.9)	14 (40.0)	
Moderate	5 (17.9)	2 (28.6)	7 (20.0)	
Moderately severe	3 (10.7)	0	3 (8.6)	
Severe	0	0	0	

Considering lower numbers in the cells, we calculated no anxiety versus any degree of anxiety using FET. Similarly, no depression versus any degree of depression. FET=Fisher’s exact test

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score for males and females was  $6.93 \pm 5.3$  and  $6.00 \pm 4.4$ , respectively ( $P = 0.675$ ). A clinical level of depression (PHQ-9 score of 10 or more) was noted in 28.6% of older adults. The anxiety and depression scores were significantly correlated (Pearson correlation,  $r = 0.485$ ,  $P < 0.01$ ).

### Quality of life

The mean QoL of the male participants on a scale of 0–10 was  $7.44 \pm 1.1$ , compared to  $7.29 \pm 1.7$  in female participants ( $P = 0.772$ ). The QoL was negatively correlated with the anxiety ( $r = -0.26$ ,  $P = 0.15$ ) and depression ( $r = -0.04$ ,  $P = 0.83$ ) scores; however, these did not reach statistical significance [Table 3].

## Discussion

The study tried to evaluate happiness in older adults and the associated factors, including those of mental health factors and QoL. It also explored the concerns and the perceived needs or concerns, which might be influencing their well-being.

### Happiness

In this study, we identified several factors linked to the happiness of a population of older adults. The most prevalent of these were social activities alongside time with family and friends. Active socialization has been reported as one of the factors associated with happiness.<sup>[9]</sup> Similar to our findings, social support and family relationships have been reported to be associated with happiness in the elderly, along with self-esteem.<sup>[16]</sup> These suggest the significance that social hobbies and interpersonal relationships have on the level of happiness in older adults. Social hobbies can take many forms, from daily conversation and interaction with friends and family to organized groups and events that are available to people. In China, a study found a similar association of social connectedness as a factor in the happiness of individuals over 60 years old in urban areas.<sup>[17]</sup> Social engagement has been reported as significantly associated with happiness in the Malaysian elderly population.<sup>[18]</sup>

**Table 3: Correlation of age with quality of life, anxiety, and depression**

Variables	Stat	Age	QoL	Anxiety	Depression
Age	<i>r</i>	1			
	<i>P</i>				
QoL	<i>r</i>	-0.149	1		
	<i>P</i>	0.417			
Anxiety	<i>r</i>	0.004	-0.263	1	
	<i>P</i>	0.983	0.146		
Depression	<i>r</i>	-0.049	-0.039	0.465*	1
	<i>P</i>	0.778	0.832	0.005	

\*Correlation is significant at the 0.01 level (two-tailed). QoL=Quality of life, Anxiety=Total score of GAD-7, Depression=Total score of PHQ-9, GAD=General Anxiety Disorder, PHQ=Patient Health Questionnaire

It is also probable that individuals with a great social capacity may be able to access a wider support system, which helps to deal with hardships and maintain happiness.

### Challenges

The opposite side to social connectedness is loneliness, and this is an issue that is seen in many elderly persons. Loneliness in the elderly population is linked to several negative health issues, such as an increase in premature death, dementia, heart disease, stroke, depression, anxiety, and suicide.<sup>[19,20]</sup> There is a need for increasing the awareness of this and preventative measures. Lowering the levels of loneliness, such as by improving social hobbies and building good relationships, is a component of a happy life, and should be aimed to reduce these comorbidities.

However, the majority (62.9%) of the respondents in our study reported the need for help related to general day-to-day activities. A greater proportion of women reported needing more help with their day-to-day activities. The gender differences in care needs have been noted in the literature, with reports of women suffering more from mental health issues and elder abuse.<sup>[21]</sup> The ability to complete activities of daily living independently is important to maintain a better QoL, although it is expected that some elderly would require assistance. A situation where these cannot be independently completed may be unsafe, highlighting a poorer quality of living and ultimately leading to unhappiness.<sup>[22]</sup> Remaining physically active is another factor that contributes to happiness.<sup>[6,7,9]</sup>

This study recognized the need for general advice, personal care, and work, help with social circumstances and psychological support. A review looking at 40 studies that investigated the care and support needs of older people highlighted similar results with three focus areas: social activities and relationships, psychological health, and activities related to mobility, self-care, and domestic life. This highlights gaps in support of the older generation and possible avenues of improvement that should take place.<sup>[23]</sup>

Specific concerns expressed by the elderly in this study resembled those reported in the region.<sup>[24-27]</sup> Although major concerns were related to health, mobility, and relationships, a concern involving getting help when needed and access to health care were highlighted. There are increased comorbidities in the older age groups, which is well-known,<sup>[27]</sup> and this poses a challenge not only for the health-care systems but also for the family caregivers. Similarly, disabilities, frailty, and mobility issues have also been reported linked to unhappiness.<sup>[28]</sup> There may be many reasons for this concern, such as the elderly may struggle with physically getting to a hospital due to

mobility reasons, difficulty with financing any required treatment, and even stigma about certain diseases.<sup>[29]</sup>

### Anxiety and depression

Mental health issues negatively influence well-being and happiness, and this has been reported in the case of older adults as well.<sup>[28]</sup> A clinical level of anxiety (GAD score of 10 or more) was present in 17.2% and depression (PHQ-9 score of 10 or more) in 28.6% of older adults. While there were no gender differences for depression, it appeared more elderly women had anxiety in this study; however, considering the smaller sample size, these findings need validation in larger samples. It has been reported that a considerable proportion of older adults suffer from depression<sup>[30-32]</sup> and anxiety. In this study, we have shown that a proportion of the sample did have symptoms associated with depression and anxiety. There is a noteworthy fraction of participants with clinically significant levels of depression and anxiety. While we did not ascertain whether this was known to the patients and whether they were having treatment for this, it highlights the need for managing these conditions in the elderly population. There is other research showing similar prevalence; and contributing old age specific factors such as widowhood and living alone.<sup>[33]</sup>

Actions to prevent depression are crucial in older adults who are already identified as a vulnerable group. This is an area that needs further attention and support. Preventative factors that boost happiness and mental state are important to consider such as exercise and social interaction,<sup>[34]</sup> along with managing stress and even insomnia<sup>[35]</sup> which are well-known common triggers.

### Strengths and limitations

To the best knowledge of the authors, it is probably the first study in the region, to investigate the factors contributing to happiness in the elderly population, and provide some useful insight. However, it has several limitations which need to be considered. One of the limitations of this study is related to the sample; which was relatively small. The sample also had a very small number of female patients. These may suggest that results are more likely to be skewed, and potential psychosocial factors that affect females may be underrepresented. As all the participants were attendees of a health-related conference, it is highly probable that they are already health conscious and may be taking steps toward improving their health, and engaging in socialization which could be linked to happiness, more so when compared to the general population. This study was conducted in a city in India. The urban setting may contribute to a difference in lifestyle factors that can affect happiness in contrast to a rural population. The general livelihoods, support, community, and health awareness may be significantly different for this group. These limitations suggest

that future studies should have larger samples, from different habitats to make them representative of the population. In future studies, the QoL should be assessed through standardized instruments available in local languages, such as WHOQoLBREF,<sup>[36]</sup> EuroQoL,<sup>[37]</sup> or Recovering QoL,<sup>[38]</sup> specifically for people with mental health problems. It is also recommended that happiness is measured using standardized measures such as the Subjective Happiness Scale,<sup>[39]</sup> Interdependent Happiness Scale,<sup>[40]</sup> or a culturally adapted suitable happiness scale for the elderly in India.

### Conclusions

This study highlighted several factors contributing to an older person's mental well-being and happiness. Importantly, concerns and worries have been identified as well, in this population which need to be further addressed to maintain a healthy older life. Key points identified from these are maintaining a good social life, support with access to health care, and support with day-to-day activities and finances. A considerable proportion of older adults have clinical levels of anxiety and depression, which would require further intervention. These factors highlight the need for dealing with specific concerns, psychosocial stresses, and the management of the mental health problems of the elderly which might help improve the QoL and happiness in their life. A greater awareness of the positive aspects of life, activities which older adults enjoy, and factors associated with happiness might help family, informal, and professional caregivers provide better care for the elderly. There is a need for further research in this area to explore the possibility of improving the happiness of the elderly through interventions in these identified areas.

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### Conflicts of interest

There are no conflicts of interest.

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