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## **Original Research Article**

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# Are rural adults happy? An observational study of happiness and its determinants

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### **ABSTRACT**

**Background:** Happiness has been defined as the degree to which an individual judges the overall quality of his or her life as favourable. The happiness of a society, depends on its individual members. So, the study was designed to assess happiness among rural adults and to identify various socio- demographic, family and health determinants affecting happiness.

Methods: It was a cross sectional study conducted in the field practice area of Department of Community Medicine, KMC Manipal. The study included 403 permanent residents of field practice area, aged ≥20 years, of both gender and willing to participate in the study. Information pertaining to socio-demographic characteristics, details pertaining to co-morbidities, habits and family particulars were collected by personal interviews using a pre-designed questionnaire. Happiness was assessed using the Oxford happiness questionnaire.

**Results:** A total of 403 subjects participated in the study and among them 82% of the respondents were happy and 17.6% were unhappy, as per the Oxford happiness questionnaire. Over half of the participants belonged to 30-60 years and two-thirds were females (66.5%). There was no gender difference in reported happiness. Almost all the people who had cordial relationship with family members (99.1%) and neighbourhood (97.9%), owning a house (94%) and being without co-morbidities (56%) were happy. Past hospitalization, concerns about child marriage and employment made people less happy.

**Conclusions:** Good relationship with family members and neighbourhood, absence of co-morbidities was positive determinants of happiness, while hospitalization, concerns about employment and marriage of their children contributed to unhappiness.

Keywords: Happiness, Determinants, Rural, Adults, Community

## INTRODUCTION

Subjective well-being and satisfaction with life are important domains of life. Positive emotions promote creative actions, ideas and social bonds, which in turn, build an individual's personal resources; ranging from physical and intellectual resources, to social and

psychological resources.<sup>2</sup> Psychological well-being and health are closely related, and this relation may become more prominent with advancing age and its association with chronic illnesses. The issues of maintaining well-being is challenge in view of the increasing life expectancy and advancement of treatment facilities.<sup>3</sup> Quantifying psychological wellbeing is a tough task; one

of the many ways of doing so, and probably the simplest would be to assess happiness.

Aristotle and his successors defined happiness as the state that results from having lived a virtuous life; they regarded happiness as the summum bonum of the human condition, the supreme good. But recent thinkers have associated happiness with many other factors like sociodemographic variables, quality of life, financial security, health concerns, personality traits and environmental concerns, to name a few. 4-6

Positive well-being and a sense of happiness plays a crucial role in coping with life situations and negative events. Objective assessment of happiness may be done for specific disease conditions, change of environment, and launch of newer initiatives but usage of different scales for assessment might be difficult to collate. The most commonly used tool for assessment of happiness is the Oxford happiness questionnaire (OHQ). Owing to limited literature on happiness, available in the geographical area, the present study was designed to assess happiness among rural adults and to identify various sociodemographic, family and health determinants affecting happiness.

### **METHODS**

## Study design and participants

A cross sectional study was conducted over a period of three months during 2016, in the Field Practice area of Department of Community Medicine, of a University Medical College. The permanent residents of field practice area, adults aged ≥20 years, of both gender and willing to participate in the study were included as the study subjects while individuals with speech and hearing disabilities and severely ill, bed ridden patients who were unable to provide answers to the questionnaire were excluded from the study.

### Sample size calculation

Considering 50% (p) of the population to be happy (q being 1-p) with a relative precision of 10% (d) and using the sample size formula  $(4 \text{ pq/d}^2)$  for cross sectional studies, the sample size was calculated to be 400.

## Study variables and instruments

Institutional ethical clearance (*IEC 117/2016*) was obtained prior to the initiation of the study. Written informed consent was obtained from all the participants. The study was conducted in accordance with the declaration of Helsinki. All participants were informed that their names would not be published and due efforts will be made to conceal their identity. The study was conducted in a village called Udyavara under field practice area of Community Medicine Department. The selection of the village and the participants was based on

purposive sampling. The study subjects were identified and line listed with the help of auxiliary nurse midwives (ANMs) and medico social workers (MSWs) in the selected area. The study participants were explained about the purpose of the study through subject information sheet and those who gave written informed consent were recruited into study. Information pertaining to socio-demographic characteristics, details pertaining to co-morbidities, habits, and family particulars were collected by personal interviews using a pre-designed questionnaire.

Happiness was assessed using the Oxford Happiness Questionnaire, which consists of 29 items scored using a Likert Scale (1="strongly disagree" to 6="strongly agree"). Reverse scoring was done for 12 items marked with an "R" in the questionnaire. Then the scores for all 29 questions were added (using the converted numbers for the 12 items that are reverse scored). The sum was then divided by 29 to give the happiness score.

## Interpretation of happiness score<sup>9</sup>

1.00-1.99: Not happy; 2.00-2.99: Somewhat unhappy. 3.00-3.99: Not particularly happy or unhappy 4.00: Somewhat happy or moderately happy. Satisfied; 4.01-4.99: Rather happy; pretty happy; 5.00-5.99: Very happy; 6.00: Too happy.

Finally, for ease of analysis the categories were merged into two categories, happy (4-6.00) and not happy defined by a score of 1-3.99.

## Statistical analysis

Data was entered and analyzed using Statistical Package for Social Sciences (SPSS) version 15.0. The results were summarized as percentages and proportions. Chi-square test was used for univariate analysis. A p-value of <0.05 was considered to be statistically significant.

### **RESULTS**

A total of 403 subjects participated in the study and among them 82% of the respondents were happy and 17.6% were unhappy, as per the Oxford Happiness Questionnaire. Table 1 describes about the sociodemographic characteristics of the study population. Most of the study subjects belonged to the age group of 30-60 years (59.3%) followed by >60 (25.1%) and <30 years (15.6%). Two-thirds of the participants were females 268 (66.5%) which could be attributed to the timing of the survey done during working hours, when most of the men go out for work. Predominantly the study participants were Hindus (83.9%).

Over half of the study subjects (58.1%) had studied till primary/secondary school. Illiterates constituted only 10.2%. One third of the respondents were homemakers (31.5%). Most of the participants were married (71.5%).

Socio-economic status assessed as per Modified Udai Parikh scale, identified 75% of the study population in the middle socio economic class followed by 18.6% in the low and 7.2% in the high socio-economic category.

Table 1: Socio-demographic characteristics of the study participants (n=403).

Socio demographic characteristics	Frequency n (%)		
Age group (years)			
<30	63 (15.6)		
30-60	239 (59.3)		
>60	101 (25.1)		
Gender			
Male	135 (33.5)		
Female	268 (66.5)		
Religion			
Hindu	338 (83.9)		
Muslim	18 (4.5)		
Christian	44 (10.9)		
Others	03 (0.7)		
Education			
Illiterate	41(10.2)		
Primary/Secondary (Grades 1-10)	234 (58.1)		
Pre-university (Grades 11 & 12)	61 (15.1)		
Graduate	67 (16.6)		
Family type			
Nuclear	196 (48.6)		
Joint	145 (36.0)		
Three generation	62 (15.4)		
Present occupation			
Professional	19 (4.7)		
Skilled/Semi skilled	103 (25.6)		
Unskilled	20 (5.0)		
Housewife	127 (31.4)		
None	134 (33.3)		
Marital status			
Married	288 (71.5)		
Divorced	04 (1.0)		
Widowed	55 (13.6)		
Single	56 (13.9)		
Socio Economic status			
Low	75 (18.6)		
Middle	299 (74.2)		
High	29 (7.2)		

Table 2 depicts the association of happiness and various socio-demographic characteristics. In the age group of 30-60 years, 62% reported to be happy as per the Oxford Happiness Questionnaire, while 48% of individuals who were not happy also belonged to the same age group. There was no gender difference in reported happiness. Literacy levels and occupation across happy and unhappy group was comparable. Since the majority of the study participants belonged to the middle socio-economic category, the proportion of reported happiness and unhappiness among these groups were also higher. Among the participants who were happy, nearly half (48.8%) belonged to nuclear families, 36% were from joint and 15% belonged to three generation family. Statistically significant association was noted only

between socio-economic status and happiness. Over 98% of happy respondents had good relationship with family members and neighbourhood and reported frequent visits by friends and relatives. Age or illness related dependency on others was a negative contributor to happiness.

Table 3 describes other determinants of happiness, identified in the study. Statistically significant determinants of happiness included, absence of comorbidities (56%), owning a house (94%) and living in a pucca house (91%). Those who were hospitalised in the previous three months, and those who had concerns about marriage of their children or their employment were significantly less happy (p<0.05) than their counterparts.

Table 2: Socio-demographic determinants of happiness (n=403).

Socio demographic characteristics	Proportion of happy participants' n=332, n (%)	Proportion of not happy participants' n=71, n (%)	P value (chi-square test)	Unadjusted OR (95% CI)
Age group (years)				
<30	50 (15.1)	13 (18.3)	0.085	1.00
30-60	205 (61.7)	34 (47.9)		1.2 (0.48-3.13)
>60	77 (23.2)	24 (33.8)	-	0.57 (0.30-1.08)
Gender				
Male	110 (33.1)	25 (35.2)	0.782	1.09 (0.6 - 1.8)
Female	222 (66.9)	46 (64.8)		
Education				
Illiterate	31 (9.3)	10 (14.1)		1.5 (0.43-5.61)
Primary/Secondary (Grades 1-10)	186 (56.0)	48 (67.6)	0.055	1.8 (0.69-4.38)
Pre-university (Grades 11 & 12)	55 (16.6)	06 (8.5)		0.73(0.22-2.41)
Graduate	60 (18.1)	07 (9.9)		1.00
Present occupation				
Professional	18 (5.4)	01 (1.4)	0.66	1.00
Skilled/Semi skilled	84 (25.3)	19 (26.8)		0.33 (0.40-2.83)
Unskilled	16 (4.8)	04 (5.6)		1.06 (0.52-2.16)
Housewife	106 (31.9)	21 (29.6)		0.83 (0.24-2.85)
None	108 (32.5)	26 (36.6)		0.91 (0.47-1.78)
Socio - economic status				
Low	51 (15.4)	24 (33.8)	0.001	1.00
Middle	254 (76.5)	45 (63.4)		4.22 (0.85-20.91)
High	27 (8.1)	02 (2.8)		2.17 (0.47-9.86)

Table 3: Factors influencing Happiness among study participants (n=403).

Variables	Proportion of happy participants' n=332, n (%)	Proportion of not happy n=71, n (%)	P value (chi-square test)	Unadjusted OR (95% CI)
Current alcohol consumer	31 (9.3)	04 (5.6)	0.365	1.72 (0.58-5.05)
Current tobacco consumer	28 (8.4)	06 (8.5)	0.996	0.99 (0.39-2.50)
Usage of sleeping pills	08 (2.4)	04 (5.6)	0.237	2.41 (0.70-8.26)
Having a good night sleep	298 (89.8)	61 (85.9)	0.346	0.69 (0.32-1.48)
Co-morbidities				
Absence	186 (56.0)	30 (42.3)	0.035	1.74 (1.03-2.92)
Presence	146 (44.0)	41 (57.7)		1.00
Hospitalisation in the last 3 months	19 (5.7)	9 (12.7)	0.036	2.39 (1.03-5.53)
Concerns about marriage of their child	27 (8.1)	12 (16.9)	0.023	2.29 (1.10-4.79)
Concerns about employment	18 (5.4)	12 (16.9)	0.001	3.54 (1.62-7.75)
Housing				
Pucca	302 (91.0)	56 (78.9)		1.00
Kutcha	03 (0.9)	3 (4.2)	0.042	0.78(0.33 - 1.85)
Mixed	27 (8.1)	12 (16.9)	0.020	2.50 (0.34- 18.08)
Ownership of house				
Own	313 (94.3)	62 (87.3)	0.036	0.41 (0.18-0.96)
Rented	19 (5.7)	09 (12.7)		1.00

## **DISCUSSION**

Contentment in life stems from happiness. Although monetary concerns are important, happiness depends on

many more factors like good health, favourable living conditions, family and friends, to name a few. The current study aimed to gauge happiness among rural residents and identify determinants of the same. A cross-

sectional community based survey among 403 respondents identified 82% to be happy and 18% to be unhappy, as per the Oxford happiness questionnaire. The results were higher in contrast to studies done in China and Turkey where participants were found to be moderately happy. Demographic characteristics, such as age in our study showed a peak of both happiness and unhappiness in the age group of 30-60 years as compared to less than 30 years and more than 60 years. This gives an inverted U shaped curve which moderates with the study of Richard Easterlin and others. Very happy citizens were younger as per a study from Croatia, while another study done in Korea identified a reverse relationship of age with happiness. 14,15

There is conflicting evidence against gender and happiness. Larger representation of women in the present study, could have led to the higher proportion of women in both the happy and not so happy categories. In the reported literature males report to be happier, probably because of their ability to hide their emotions, as against women who readily admit to negative feelings. <sup>13,14,16</sup> But studies from rural India and elsewhere have also reported men to be less happy than females. <sup>17,18</sup>

In the present study no differences were noted due to literacy and occupation parameters but these were contrary to studies from other countries. 13,17,19 The probable explanation would be that, less educated people had more leisure time to engage themselves in other activities which could be the source of happiness. Education may also lead to higher expectations from life which sometimes becomes more difficult to attain and hence leads to dissatisfaction in life. Statistically significant association was noted between different socioeconomic groups and happiness. Studies have shown that wealthier people are more happy as they can fulfil most of their demands. 13,14,16,19,20 Income aspirations appear to be related to subjective well-being in a non-linear fashion, according to a study from rural India.<sup>17</sup> Married people were found to be happier than widowed/single/divorced in the current study. This positive relation between marriage and happiness has been constantly identified in national and international studies. 13,15,20

People who were healthy or had no co morbidities were found to be happier than the people with co morbidities in the study, which paralleled with studies done within India and outside. <sup>16,17,19-23,25</sup> Individuals who met their friends and relatives regularly or were a part of a social group were found to be happier than the lonelier ones and this result was statistically significant. This finding was well supported by reported literature as well. <sup>13,14,17,18,25</sup>

Individuals who did not smoke or ex-smokers were happier although the results were not statistically significant in the current study. Higher levels of nicotine dependence was associated with lower levels of happiness, as reported from the former Soviet Union,

while a work place study from New Zealand reported smoking to be negatively associated with happiness. <sup>23,26</sup>

Happier individuals (94.3%), in the current study lived in the security of their own homes. This was similar to studies done from China, Latin America where home ownership was identified as a strong predictor of happiness. 18,24,27

The present study was an attempt to quantify and identify determinants of happiness in a rural community. Attempts at gauging happiness have its own limitations in a cross-sectional design, as the answers are limited to the current or recent past life experiences. A survey done during working hours also captures data only from people available at home, like homemakers and elderly populace; the working population is invariably missed. But to make a beginning, the study ascertained the association between sociodemographic characteristics, influence of family, presence of co-morbidities, usage of tobacco and alcohol on happiness. The real picture of happiness in the society would emerge when the modifiable determinants of happiness are addressed and periodic re-evaluation in the same population is done.

#### **CONCLUSION**

Good relationship with family members and neighbourhood, absence of co-morbidities were positive determinants of happiness, while hospitalization, concerns about employment and child marriage contributed to unhappiness.

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