Happiness inequality in young adults: a nationwide cross sectional study from Iran

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Research note

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Abstract

Objective The correlation between happiness and health is well established. This study aimed to measure happiness and its correlates among a sample of young adults in Iran. As such a national cross sectional study was conducted and the Oxford Happiness Questionnaire (OHQ) was administered to measure happiness. We performed logistic regression analysis to examine the relationship between happiness and independent variables. **Results** In all 14292 young adults (7702 female and 6590 male) were completed the questionnaire. The mean happiness score for the study sample was 4.09 (SD = 0.57) out of 6; indicative of a condition that is named as 'rather happy; pretty happy'. The results obtained from multiple logistic regression analysis showed insignificant association between happiness, age, gender, and education whereas the association between happiness and income [OR for poor/very poor= 1.69, 95% CI: 1.51-1.90] and employment status [OR for unemployed = 1.88, 95% CI: 1.53-2.32] was significant. In addition separate analyses for men and women showed that income and employment still were significant for men but for women only income was significant.

Introduction

Although happiness is not associated with longevity in sick population and does not have direct effect on mortality, it does protect against becoming ill [1,2]. As such it has been suggested that 'public health can be promoted by policies that aim at greater happiness of a greater number' [1] and the need for the study of happiness in both content and methodology is well justified [3].

The association between happiness and health or association between happiness and some health related behaviors are well documented. For instance a review on subjective well being (popularly referred to as happiness or satisfaction) reported that higher subjective well-being was associated with good health and longevity, better social relationships, work performance and creativity [4]. Also a recent study from 15 European countries reported that compared to inactive people, there was a positive dose-response association between physical activity volume and happiness [5]. However studies showed that the contribution of health to happiness is indirect and small. A study investigated the influence of health perception on the association between leisure time physical activity and happiness and found that health had a small significant indirect influence on the relationship between leisure time physical activity and happiness [6]. A scholarly document on happiness and health concluded that 'nevertheless, this field shows great potential, with the promise of establishing a favorable effect on population health' [7]. Therefore, understanding happiness and its correlates in different societies and at different stages of life require continuous efforts in order to make people feel healthier. Thus this study aimed to measure happiness in young adults in Iran in order to contribute to existing knowledge on the topic and provide evidence that will inform policy.

Methods

We conducted a national cross sectional study to measure happiness and its correlates among a representative sample of young adults in Iran, in 2017. Young adults are usually healthy and young adulthood is considered to be the healthiest time of life [8]. Happiness was measured using the Oxford Happiness Questionnaire (OHQ). The questionnaire contains 29 items that are rated on a 6-point Likert scale. The total score on the questionnaire also ranges from 1 (not happy) to 6 (too happy) [9]. The interpretation of the questionnaire reads as follows: 1–2 = not happy; 2–3 = somewhat unhappy; 3–4 = not particularly happy or unhappy; 4 = somewhat happy or moderately happy; 4–5 = rather happy, pretty happy; 5–6 = very happy; 6 = too happy. Logistic regression analysis was performed to assess the relationship between happiness and demographic and socioeconomic variables. As such we merged scores to categorized participants into two groups: happy and unhappy.

Results

In all 14292 young adults (7702 female and 6590 male) were completed the questionnaire. The mean age of respondents was 32.1 (SD = 5.1) years. The characteristics of the study sample are shown in Table 1.

The mean (SD) happiness score for the study sample was 4.08 (0.57) suggestive of a condition that is named as '*rather happy, pretty happy*'. The mean (SD) happiness score for males was 4.07 (0.56) and it was 4.09 (0.58) for females ($P = 0.05$). In addition, proportional to mean score 51.1% ($n = 7306$) of the respondents were 'happy' and the remaining 48.9% ($n = 6986$) were 'unhappy'.

In multiple logistic regression analysis no significant association was observed between happiness, age, gender, and education whereas the association between happiness and income [OR for poor/very poor = 1.69, 95% CI: 1.51–1.90] and employment status [OR for unemployed = 1.88, 95% CI: 1.53–2.32] was evident (Table 2). However, in further separate analysis for men and women we found that income and employment still were significant for men but for women the association only for income was significant. The detailed results are shown in Table 3.

Discussion

More than a decade ago there were controversial discussions as whether a nation's income inequality does affect its happiness inequality or not. The full debates on the topic could be find elsewhere [10–13] and evidently are out scope of the current study. However, the findings from this study indicated that inequality in happiness is real and is highly depends on some socioeconomic factors that are also responsible for other sorts of inequalities. As such recently Kyriopoulos *et al.* provided evidence that a strong relationship exist between happiness and self-reported health among lower educated and those from lower socioeconomic status [14].

The findings showed a relatively high overall mean score for happiness among young adults in Iran (mean score of 4.09 out of 6.0). It is argued that such findings might be biased and might differ from

what one could see in the real world. It is argued that ordinal (bounded) scales are associated with higher reported happiness and thus overstatement bias in happiness data must be considered [15]. However, a study from Chilean college students found that being female and younger was associated with a higher happiness, self-reported daily physical activity, having lunch and fruits and vegetables each day [16]. Similarly a cross-sectional survey among university students from 24 countries reported that higher sedentary behavior was associated with poorer life satisfaction and lower happiness [17]. These observations might indicate that such significant difference in happiness level among young individuals has a route in socioeconomic status of these young people as we also observed this in the current study.

Conclusion

The findings from current study indicated that happiness, to a large extent, was correlated with socioeconomic factors. In fact this is inequality in income and employment that make people feel unhappy and in turn perhaps feel ill. It seems that although young adults in Iran reported that they feel rather happy, happiness inequality exist and should be eliminated on the basis of equal distribution of opportunities and wealth.

Limitations

This was a cross-sectional study in nature and thus the results should be interpreted with caution. In addition the study did not include any measures of health. As such relating happiness to health in this population needs further investigation.

Abbreviations

OHQ: Oxford Happiness Questionnaire; OR: odds ratio; SD: standard deviation

Declarations

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Authors' contributions

AM was the grant holder and designed the study, contributed to analysis and drafted the manuscript. MT and AHM contributed to literature search, analysis and writing process. JS, FF, FM, AA, RM contributed to

design, analysis and writing. All authors read and approved the study.

Ethics approval and consent to participate

The ethics committee of the Iranian Academic Center for Education, Research and Culture (ACECR) approved the study. All participants were informed about the study and written informed consent was obtained from all the participants.

Consent for publication

Not applicable.

Availability of data and materials

The data set is available for the corresponding author.

Competing interests

The authors declare that they have no competing interests.

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Tables

Table 1: The characteristics of the study sample.

	Female (n = 7702)		Male (n = 6590)		All (14292)	
	Number	%	Number	%	Number	%
Education						
0-5	1450	18.8	763	11.6	2213	15.5
6-9	1280	16.6	1290	19.6	2570	18.0
10-12	2898	37.6	2359	35.8	5257	36.8
13 and over	2074	26.9	2178	33.1	4252	29.8
Occupation						
Employed	940	12.2	6003	91.6	6943	48.8
Housewife	6577	85.6	0	0	6577	46.2
Students	156	2	75	1.1	231	1.6
Unemployed	11	0.2	477	7.3	488	3.4
Income						
Very good/good	1854	24.3	1439	22.0	3293	23.2
Fair	4694	61.5	3941	60.2	8635	60.9
Poor	1083	14.2	1164	17.8	2247	15.9
Setting						
Urban	5217	67.7	4406	66.9	9623	67.3
Rural	2485	32.3	2184	33.1	4669	32.7

Table 2: The results obtained from logistic regression analysis indicating odds ratio for unhappiness

	Unadjusted odds ratio (95% CI)	P	Adjusted odds ratio (95% CI)	P
Age	0.99 (0.98-1.00)	0.036	0.99(0.98-1.00)	0.18
Gender				
Male	1.00 (ref.)		1.00 (ref.)	
Female	1.71 (1.00-1.14)	0.040	1.10 (0.88-1.15)	0.88
Education (years)	0.98 (0.98 (0.97-0.99)	<0.0001	0.99 (0.99-1.00)	0.53
Occupation				
Employed	1.00 (ref.)		1.00 (ref.)	
Housewife	1.02 (0.78-1.33)	0.869	1.3 (0.78-1.37)	0.78
Students	1.82 (1.10-1.26)	<0.0001	1.48 (0.99-1.32)	0.05
Unemployed		<0.0001	1.88 (1.53-2.32)	0.001
Income				
Very good/good	1.00 (ref.)		1.00 (ref.)	
Fair	1.08(1.00-1.17)	0.049	1.05 (0.96-1.14)	0.22
Poor	1.78 (1.68-2.09)	<0.001	1.69 (1.51-1.90)	<0.001
Setting				
Urban	1.00 (ref.)		1.00 (ref.)	
Rural	0.94 (0.85-0.98)	0.012	0.89 (0.91-1.05)	0.62

Table 3: The results obtained from multiple logistic regression analysis indicating odds ratio for unhappiness by gender

	Male (n = 6590)		Female (n = 7702)	
	Adjusted odds ratio (95% CI)	P	Adjusted odds ratio (95% CI)	P
Age	0.99 (0.98-1.00)	0.08	0.99 (0.99-1.00)	0.84
Education (years)	0.98 (0.97-1.00)	0.07	1.00 (0.99-1.01)	0.53
Occupation				
Employed	1.00 (ref.)		1.00 (ref.)	
Housewife	-	-	1.11 (0.96-1.29)	0.15
Students	1.55 (0.96-2.49)	0.06	0.84 (0.60-1.21)	0.38
Unemployed	1.92 (1.54-2.39)	<0.001	0.86 (0.14-5.20)	0.87
Income				
Very good/good	1.00 (ref.)		1.00 (ref.)	
Fair	0.92 (0.81-1.045)	0.20	1.16 (1.03-1.29)	0.08
Poor	1.47 (1.24-1.74)	<0.001	1.87 (1.59-2.20)	<0.001
Setting				
Urban	1.00 (ref.)		1.00 (ref.)	
Rural	1.00 (0.90-1.12)	0.90	0.96 (0.86-1.06)	0.45