

RESEARCH ARTICLE

Elucidating the Association of Key Socio-demographic Factors Underlying Happiness and Well-being in the Eastern Indian Bengali Population

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Abstract

Background: Subjective happiness or well-being is an important aspect of positive psychology and is determined by several external factors, based on several of which, the World Happiness Report ranks the countries annually. India's happiness ranking has consistently declined over the years compared to the neighboring countries.

Methods: The present study considered relevant socio-demographic factors and assessed their association, if any, in subjective happiness using multiple linear regression analysis among the eastern Indian Bengali population. A total of 191 participants were recruited for the study and their subjective happiness scores were measured using a well validated Subjective Happiness Scale.

Results: The result showed a significant association of 3 factors viz. individual's 'choice to stay or work in a group or alone' ($p \leq 0.0001$); 'frequency of feeling sad in daily life' ($p \leq 0.0001$); and 'personal relationship satisfaction' ($p \leq 0.0001$) with subjective happiness scores in both males and females. Eight other variables showed a gender-specific association with happiness ($p \leq 0.05$).

Conclusion: These three socio-demographic factors might thus be the key determinants in regulating subjective well-being in this section of the world population. This information might thus be helpful in future counselling of individuals suffering from distress or severe

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Received Date: January 05, 2024, **Accepted Date:** January 23, 2024, **Published Date:** January 31, 2024

Citation: Dhauria M, Pyne T, Nandagopal K, et al. Elucidating the Association of Key Socio-demographic Factors Underlying Happiness and Well-being in the Eastern Indian Bengali Population. *Int J Bioinform Intell Comput.* 2024;3(1):26-44.



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depression and keep their better mental health.

Key Words: *Happiness; Well-being; Subjective happiness scale; Socio-demographic factors; Mental health*

1. Introduction

People's mental health depends on their positive psychological state, which in turn determines their overall happiness, well-being, and also the quality of life [1,2]. Abraham H. Maslow first invented the term positive psychology (happiness/well-being) in his book 'Motivation and Personality' [3], and it is this trait which can determine an individual's total health in addition to mental health [4]. Positive psychological research can enlighten us on how a person's positive psychological state can improve their quality of life [2]. Happiness is one of the foremost vital aspects of positive psychology.

Happiness can be determined by several external factors. Previous studies have in fact, deduced association with a few with the regulation of happiness like gender, age, relationship status, employment status, meditation, exercise, gaming preferences, music [5-8], while a few of them like group activity, frequency of negative thinking, relationship satisfaction, drug usage, personality type, and eating habits in a subconscious mind [9-14] although not yet been studied for their association with happiness or well-being, might well have a strong role to play in regulating happiness. In our study, we grouped these factors to study into three different criteria. First, the "personality and life choices" includes the variables such as, 'choice to stay or work in a group or alone'; 'frequency of feeling sad in daily life'; 'personal relationship satisfaction'; 'drug usage'; 'personality type (introvert/extrovert)'; and 'eating habits in the subconscious mind'. The factors of this group are linked differently with people's psychological state such as, group work sustaining positive mood [9], repetitive negative thoughts influencing sadness and depression [10], less relationship satisfaction or dissatisfied in the personal relationships causes depression [11], people with mental disorder are more prone to uses of the drug [12]. Introverted personality is a key determinant of depression, and which also decreases the quality of life of an individual [13]. Whereas, eating habits in the subconscious mind or eating habits that occur without full awareness can be a determinant of negative emotional states or affective disorders that can still take a role in mental and physical well-being [14]. Since all these factors are linked to regulating an individual psychological state, they may play a role in the regulation of individual happiness and well-being. Second, the "sociodemographic factors" that include 'age'; 'relationship status'; 'employment status'; and 'gender', might increase happiness by enhancing people's life satisfaction [5]. Third, the "activities" that include 'exercise and/or meditation'; 'gaming preferences' (computer and mobile games or outdoor games); and 'music listening' influence individual happiness in improving one's mood and health [6-8]. Most studies to date have shown the influences of several activities and sociodemographic variables on happiness. In our study, we have selected the other external factors based on individual personality and life choices and evaluated if these factors have any role to regulate happiness and well-being in a representative West Bengal population of India.

The World happiness reports based on an average ladder score dependent upon variables such as GDP per capita, social support, healthy life expectancy, freedom, generosity, and absence of corruption from 2013 to 2020 show a steady decline in India's happiness rank. De facto, upon collecting data from the world happiness report and creating a year-wise correlation graph with the average ladder score of India, we found a significant negative

correlation (Figure 1). Also, India ranks worse in comparison to the neighbors of similar socio-demographics like Pakistan and Bangladesh (worldhappiness.report/ed/2013-2021).

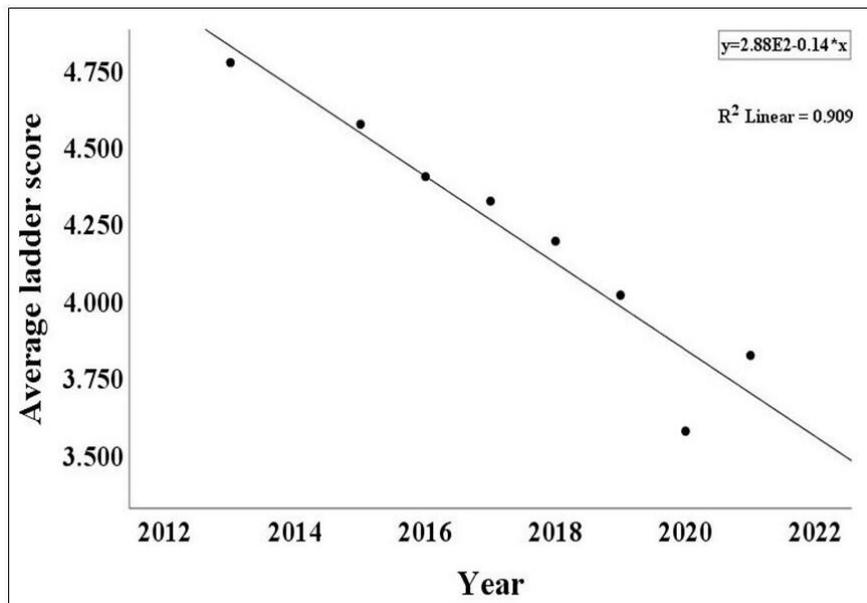


Figure 1: Year-wise correlation graph showing the strong negative correlation of the India's average ladder score among 2012-2022. The proportion of the variation in the dependent variable was predicted by calculating R^2 .

Therefore, it is important to examine the factors that are causing India's happiness to continue declining by collecting data from various regions of the country. India is known for its diversity in geography, ethnicity, culture, language, food habits, and fashion, among other things [15]. This diversity can significantly influence the overall happiness of the nation [16]. With these statistics in mind, the purpose of this research was to explore the connection between happiness and the external factors that play a significant role in determining it within the representative population. Individual quality of life depends on their positive psychological states like happiness and well-being, whereas happiness itself is determined by several factors. So, the proper identification of those determinants can also help people to know how to improve their positive psychological state in association with happiness and also help them to improve their mental health and quality of life.

2. Methods

2.1. Sampling and phenotyping

2.1.1. Participants

The participants (students and scholars; $n=191$, male=88, female=103) were recruited from the university campus with a mean age of 26 ± 4 . This sample size met the minimum requirement for statistical constraints necessary for the chosen confidence level (95%), which was confirmed by a sample power calculation [17]. The participants suffering from any type of affective disorder or actively exposed to psychiatric medicines were excluded from our study. The ethical clearance for recruiting the participants in our study was obtained from the institutional ethical committee where the study has been conducted.

2.1.2. Sample power calculation

We calculated the sample power by using the R tool 'pwr' package [17] to check if this sample size is enough to pick up the minimum effect sizes of the studied covariates.

2.1.3. Happiness measurement

To measure subjective happiness, we took resort to the worldwide validated Subjective Happiness Scale (SHS) [18] which was also validated in the study population earlier by our team [19]. SHS is a four-question-containing happiness scale, of which three questions refer to the positive psychological state of an individual, in contrast, the remaining one (number 4th) refers to the negative psychological state. The number of individuals considered for this study and their happiness assessment is a part of the validation study as already stated above [19].

2.1.4. Description of the predictor variables

Along with the SHS questionnaire/scale, participants were given a case sheet with a total of 13 variables (See the supplementary data). Out of 13 variables, 6 were from "personality and life choices", 4 from "sociodemographic factors" and left 3 from the "activities" criterion (Table 1). Except for 'age', (factor with continuous numerical responses), each variable was comprised of two or more categorical responses. These 13 variables were used as predictor variables to find out their relationship with happiness.

2.2. Statistical analysis

2.2.1. Scoring and scale reliability

The mean happiness score of individuals was calculated by reversing the 4th question's response and then summing all four responses (responses of the question number 1, 2, 3 and reverse response of number 4) and dividing this sum by 4 [18]. The mean happiness scores for total participants, males, and females were calculated, and the scale reliability was checked by computed Cronbach's α value [20] with the help of SPSS [21].

2.2.2. Regression analysis

The association of variables and happiness was done by linear regression analysis using SPSS V25. In regression analysis, we selected, mean happiness score as a dependent variable and 13 variables as predictor variables, in which one predictor variable has quantitative (age) and the remaining have categorical responses, and the association was measured for each category/ies in respect of the reference category for each predictor variable (Table 2). This was done for total, male and female participants separately. The p-value selected as a cutoff for association was ≤ 0.05 .

2.2.3. Association plots for predictor variables with the mean happiness scores

To find out the pattern of changes in the happiness score for each category in respect of the reference category for each categorical variable we generated a chart plot using Microsoft Office Excel 2013 and created a scatter plot for the variable (age) that had a continuous

numerical value using ggpubr package of R tool. Each plot shows an association of mean happiness score and its predictor variables for total, male and female participants (Figure 2).

Table 1. Description of the predictor variables of happiness and their categories.

Variable Criteria	Variables	Categories of Each Variable
Personality and life choices	Choice to stay or work in a group or alone	Alone# In a group
	Frequency of feeling sad in daily life	Never For some time# Most of the time
	Personal relationship satisfaction	No# Yes
	Drug usage	Medicinal drug# Abuse drug No drug usage
	Personality type	Introvert# Extrovert
	Eating habits in the subconscious mind	Never Occasional# Most of the time
Demographic factors	Age	NC
	Relationship status	Single/separated/divorcee# In a relationship/Married
	Employment status	Unemployed# Self-employed/service/professional/fellowship holder
	Gender	Female# Male
Activities	Exercise and/or meditation	Regular Sometime# Never
	Gaming preferences	Computer and/or mobile game# Outdoor game
	Music listening	Rock music All types of music# Sad music

NC=No category, # denotes to reference category

3. Results

3.1. Phenotyping and scale reliability

The mean happiness score on the SHS scale was 4.7 ± 1.16 for all participants, 4.7 ± 1.16 for males, and 4.7 ± 1.15 for females. The mean happiness scores were initially measured and validated in our initial study [19] and this is a part of the study where we only related the sociodemographic variables with happiness. No gender differences in mean happiness scores were thus found. The Cronbach's α value for scale reliability was 0.74 which was similar to the Cronbach's value (0.73) of our earlier validation of the SHS scale [19], and this value fell within an acceptable range [22].

3.2. Sample power

Sample power analysis showed the sample power is 0.99 and effect size is 0.5 at a 0.05 level of significance. It means, the present sample size for the study was sufficient enough to pick up the minimum effect sizes of the selected environmental covariates on the outcome variable (happiness).

3.3. Association study

3.3.1. Association of predictor variables with subjective happiness

We found that the three predictor variables ('choice to stay or work in a group/alone'; 'frequency of feeling sad in daily life'; and 'personal relationship satisfaction') were strongly associated with happiness for both male and female participants ($p \leq 0.001$) (Table 2 and Supplementary Figure 1). Seven variables were found to have a gender-specific association ($p \leq 0.05$). A few of them were associated with happiness for male participants ('personality type', 'age', 'relationship status', 'employment status') (Table 2, Supplementary Figure 2, Figure 2c, and Supplementary Figure 3) and others were associated with female happiness ('drug usage'; 'exercise and/or meditation'; 'gaming preferences') (Table 2, Supplementary Figure 2, and Supplementary Figure 4). For another variable "eating habits in the subconscious mind", the results showed a significant association for the 'most of the time' category for total participants ($p=0.002$), males ($p=0.022$), and females ($p=0.038$). However, the category 'never' showed gender specific association and the results showed significant only for the total participants ($p=0.002$) and female ($p=0.002$) but not for the males ($p=0.165$) (Table 2 and Supplementary Figure 2). The remaining two variables ('Gender' and 'Music listening') (Table 2, Supplementary Figure 3, and Supplementary Figure 4) were found no association with happiness. The categories of the predictor variables showed negative β values ($-\beta$), indicating they are negatively correlated with happiness. In a regression model, the beta coefficient measures the estimated change in the dependent variable for a one-unit change in a predictor variable. It shows the strength and direction of the relationship between each predictor variable and the dependent variable. The beta values for the variables in Table 2 showed that some categories had negative β values, while others had positive values. This indicates whether a variable has a positive or negative relationship with the outcome variable of subjective happiness. For example, the variable "frequency of feeling sad in daily life" has three categories: 'never', 'for some time', and 'most of the time'. The β value for the 'never' category is 0.359 for all participants, 0.459 for male participants, and 0.418 for female participants. This means that for each unit increases to the no sad feelings or never feeling sad, the happiness increases by an average of 0.359 units for all participants, 0.459 units for

males, and 0.418 units for females. On the other hand, the 'most of the time' category has negative β values (-0.414 for all participants, -0.39 for males, and -0.439 for females), indicating a reverse relationship with happiness. This means that for each unit increase in the frequency of feeling sad, the happiness decreases by an average of 0.414 units for all participants, 0.39 units for males, and 0.439 units for females (as shown in Table 2 and Supplementary Figure 1b). The results of other variables in Table 2 also follow the same interpretation. In all cases, a p -value ≤ 0.05 indicates a significant result.

3.3.2. Happiness and its predictor variables relationship plots

All the chart plots show the relationship and pattern of changes of the mean happiness score with the categories of each predictor variable. Figure 2a shows how the mean happiness score changes with each category in respect to the reference category of each predictor variable from the “personality and life choices” criterion. Figure 2b-c shows the relationship of “demographic factors” with happiness. Furthermore, Figure 2d shows the relationship between the “activities” criterion and happiness. In comparison to all the plots, interestingly we found the major changes of the mean happiness score of each category/ies in respect to the reference category for three predictor variables (‘choice to stay or work in a group/alone’; ‘frequency of feeling sad in daily life’; ‘personal relationship satisfaction’) (Figure 2a). The scatter plot in Figure 2c of the variable ‘age’ versus happiness shows the age-wise changes of the mean happiness score for both male and female participants. Here we found, age-wise increases of the mean happiness score for males but the reverse was found for the female participants. However, the linear regression result showed this relationship between ‘age’ and happiness was only significant for males but not for females.

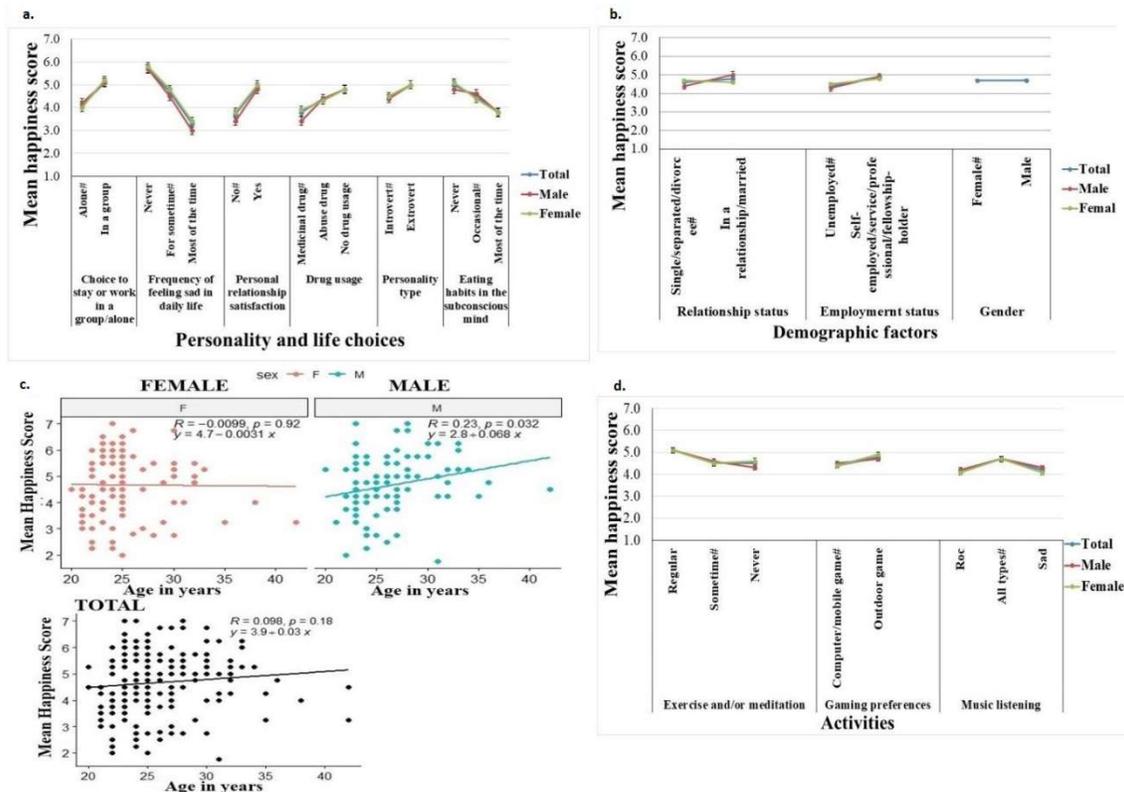


Figure 2. Determination of happiness with socio-demographic variables relevant to (a) personality and life choices, (b-c) demographic factors, and (d) activities.

Table 2: Linear regression analysis results show the association of predictor variables with mean happiness scores for total, male and female participants. $P \leq 0.05$ was selected for the level of significance of the test.

Variable Criteria	Predictor Variables	Total (n=191)			Male (n=88)			Female (n=103)		
		β	SE	p-value	β	SE	p-value	β	SE	p-value
Personality and life choices	Choice to stay or work in a group or alone									
	Alone#									
	In a group	0.437	.152	0.000	0.378	.229	0.000	0.486	.204	0.000
	Frequency of feeling sad in daily life									
	For some time#									
	Never	0.359	.225	0.000	0.459	.266	0.000	0.268	.418	0.006
	Most of the time	-0.414	.25	0.000	-0.39	.451	0.000	-0.439	.305	0.000
	Personal relationship satisfaction									
	No#									
	Yes	0.418	.195	0.000	0.403	.342	0.000	0.441	.243	0.000
	Drug usage									
	Medicinal drug#									
	Abuse drug	-0.112	.209	0.122	-0.123	.268	0.253	-0.11	.36	0.271
	No drug usage	0.21	.187	0.004	0.175	.261	0.102	0.247	.275	0.012
Personality type										
Introvert#										
Extrovert	0.223	.174	0.002	0.268	.241	0.012	0.189	.259	0.056	
Eating habits in the subconscious mind										
Occasional#										
Never	0.228	.165	0.002	0.149	.245	0.165	0.295	.224	0.002	
Most of the time	-0.223	.288	0.002	-0.244	.395	0.022	-0.205	.425	0.038	
Age										
		0.1	0.022	0.167	0.23	.031	0.031	-0.008	.031	0.938
Demographic factors	Relationship status									
	Single/separated/divorcee#									
	In a relationship/Married	0.086	.169	0.237	0.273	.242	0.01	-0.068	.232	0.497
	Employment status									
	Unemployed#									

Activities	Self-employed/service/professional/fellowship holder	0.193	.166	0.007	0.257	.248	0.016	0.147	.23	0.139
	Gender									
	Female#									
	Male	-0.001	.169	0.988	NA	NA	NA	NA	NA	NA
	Exercise and/or meditation									
	Sometime#									
	Regular	0.199	.196	0.006	0.186	.289	0.083	0.209	.269	0.034
	Never	-0.072	.206	0.322	-0.148	.303	0.17	-0.01	.283	0.922
	Gaming preferences									
	Computer and/or mobile game#									
	Outdoor game	0.153	.17	0.034	0.1	.255	0.353	0.197	.231	0.046
	Music listening									
	All types of music#									
	Rock music	-0.085	.419	0.241	-0.106	.487	0.324	-0.065	.84	0.517
Sad music	-0.123	.293	0.09	-0.11	.387	0.306	-0.139	.457	0.162	

The bold β and p values denote significant association. SE: Standard error of the estimate, NA: Not applicable, β : standardized beta coefficient, Negative β values ($-\beta$) indicate negative association of the predictor variables with the dependent variable (happiness), # denotes to reference category, and concerning this reference category the remaining categories of each predictor variables showed their association with the dependent variable.

4. Discussion

This study aimed to examine the relationship between happiness and 13 external variables that have previously been identified to influence human behaviors and positive or negative psychological traits. To the best of our knowledge, this study is the first of its kind to reveal that 11 predictor variables are associated with happiness in the representative Indian sample set. Out of those, 3 personality and life choice variables: a) choice to stay or work in a group/alone b) the frequency of feeling sad in daily life and c) personal relationship satisfaction are associated with and thus have a significant impact on happiness in both men and women (Figure 3).

With respect to the first variable i.e. 'choice to stay or work in a group or alone' it was revealed that people who prefer to work or stay in a group tend to be happier than those who prefer to be alone. Both philosophically and intuitively it seems obvious that individuals who enjoy being part of a group and spending time with others tend to have stronger social connections and ability to share more. Thus, they may experience less of sadness and depression compared to those who prefer solitude and have fewer social connections [23]. It is worth mentioning here that dearth of social connections has been linked to an increased risk of developing chronic heart disease [24] and higher mortality rates [25].

Regarding the second variable i.e. 'frequency of feeling sad in daily life', the study revealed that the people who experienced minimal or no sad feelings in their daily lives were considerably happier compared to those who had a higher frequency of such thoughts. Again, intuitively, this specific variable and happiness goes hand in hand as continuous feeling of sadness is indicative of negative psychological states like depression and anxiety [26].

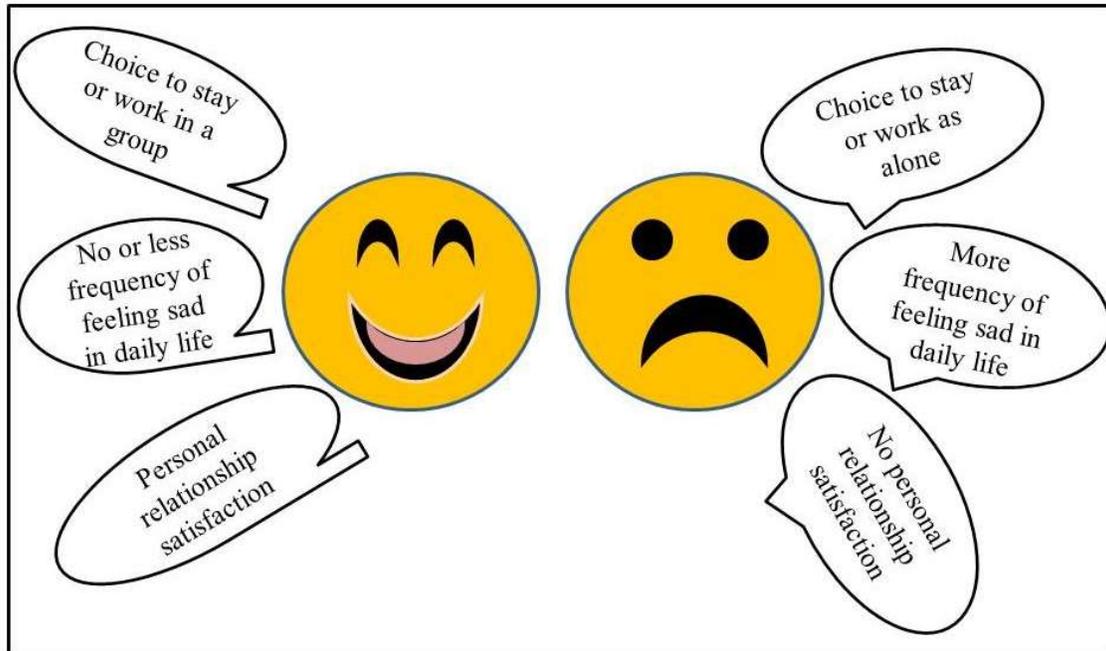


Figure 3: The key external factors that determine whether a person is happy or not in either sex.

For the third variable i.e. 'personal relationship satisfaction', it was found that Individuals who reported being satisfied with the personal relationship are happier than those who are not. Just as a satisfying relationship can predict a person's cheerful life [27], conversely, an inferior friendship leads to low life satisfaction and thus elicits anxiety [28].

Interestingly, a 8 predictor variables from the 3 variable criteria used in our study viz. 'personality and life choices', 'demographic factors' and 'activities' had gender-specific associations with happiness. To discuss the predictor variables criterion-wise, let us first take the example of 'drug use' within 'personality and life choices.' People resort to drugs to stay fit, and often to be helped to relax, relieve boredom and get over career, peer and social pressure, and to enhance performance. Drugs are consumed more in social isolation and during financial burden too; and most often than not only out of curiosity and experimentation. However, it has been shown to create potential physical, physiological and most importantly psychological damage [29]. Thus, 'drug usage' could well deemed to be a good predictor of individual happiness. In this study, we found that people who never used any drugs were happier. This association was again, true in the females but not in males. Females have been shown in some studies to be more prone to substance abuse disorders and related mental hazards compared to males [30]. This is in some concordance to our finding that while happiness in males is not associated with drug usage, it is associated with the females. It's a thought provoking question that why the same drugs would have differential impacts on different sexes. 'Personality type' is also a good predictor in any psychological assessment. Individuals with different personalities could be the reason behind individual differences in their positive psychological state like happiness and well-being. People with introverted

personalities generally have less social connection and they can't share thoughts with others. In contrast, extroverts are more social which help them to release their stress better than introverts [31]. Our study revealed extroverts to be happier than the introverts among the male participants; the females, however, only showed a trend ($p=0.056$). Another significant predictor variable we found a gender-specific association with happiness was 'eating habits in the subconscious mind'. Typically, individuals tend to eat subconsciously when they feel low or experience negative emotions. Likewise, a study revealed that eating habits during a negative mental state are linked to a decline in overall mental well-being [32]. Consistently, our findings demonstrated that people who frequently eat in their subconscious mind are less happy compared to those who only do so occasionally or never as well. However, one category of this variable shows gender specific association but increasing the sample size might give the significant result.

Within '*Demographic factors*', the predictor variables 'Age', 'Relationship status' and 'Employment status' were found to be significant determinant of happiness in a gender specific manner. We found significant positive correlation of happiness with age in the males. This finding is consistent with a previous study that indicated happiness increases with age in men but declines in women [33]. Although a trend of negative correlation was observed in our female participants, it was not significant. Being in a relationship has been shown to reduce stress that leads to better life satisfaction and increases well-being. A previous study found that men experience higher levels of marital happiness compared to women [34]. Similarly, our study also showed that men who are in a relationship reported higher levels of happiness than women. However, relationship satisfaction (as previously mentioned) shows its strong association with happiness in both the sexes. Therefore, it proves the fact that satisfaction in relationship has a greater impact on a person's well-being than just being in a relationship. Like 'Relationship status', 'Employment status' is a key demographic variable in psychological assessment. Being employed gives a person a sense of security and thus a greater life satisfaction. According to this study, employed men had considerably higher mean happiness scores than unemployed men. Although a previous study had revealed that unemployed females are more stressed and had much lower mental and physical well-being than their male counterparts [35], no significant association was found between happiness and employment status in the female participants of our study, which is thought provoking. Within the variable criterion: '*Activity*', 'Exercise and/or meditation' is a key predictor variable that helps people to keep physically fit and reduces stress. Meditation has been known to improve well-being through positively regulating mental health [36]. In our study, it was found that people engaged in regular 'exercise and/or meditation' were happier than the people who never resort to or infrequently do exercises. However, this association was found only among female participants. While exercise and meditation are beneficial for both men and women, but it has been postulated that women get more benefits of exercise in terms of improving their mood and thus decrease negative affect and depression [37]. 'Gaming preferences' of outdoor or computer games is another crucial factor that can enhance a person's subjective level of happiness and well-being. Playing outdoor games has been shown to help people become more socially engaged, improve their mental health by strengthening their connection to nature and their peers. Outdoor sports provide a kind of physical activity that keeps people fit. However, all these are at a miss for people always likely to play computer/mobile game. In fact, they have been found to develop a variety of behavioral problems [38]. In this study, we found that females who play outdoor games were happier than those who opt to play computer/mobile games. A previous study revealed that girls who engage in outdoor games have lower prevalence levels of psychological symptoms, while no such link was identified for males [39]. However, this does not tell us the basis of non-association of the parameter concerned with the males.

Thus, only two of the 13 variables we selected to assess in our study i.e. 'listening to music' and 'gender' had no association with happiness. Music is a significant aspect that may improve our mood and hence increase our happiness. Since we didn't find any link between 'music listening' and happiness, we need to investigate further by expanding the sample size and focusing on specific types of music that people enjoy. Regarding gender, while a previous study reported that there is no gender difference in happiness and well-being [40], another study showed an association [41]. Because of this apparent conflict, we had selected this variable to study in our population but found no association.

The limitation of this study, no doubt, is the small number of samples. Increasing the sample number further can help to get better association results for each category of the predictor variables.

5. Conclusion

Psychologically, our mental state and behaviors have been hypothesized to be shaped by numerous external factors and choices. Accurately identifying specific variable predictors that directly or indirectly influence happiness can also help an individual to be positive and happy that in turn may lead him to avoid stress induced depressive symptoms. In the present study, we identified 11 external factors or life choices that may significantly contribute to people's happiness and will assist in future evaluations of happiness and well-being. Three key personality and life choice parameters viz. 'choice to stay or work in a group or alone'; 'frequency of feeling sad in daily life'; and 'personal relationship satisfaction' were found to be significantly associated with happiness in both the sexes while 8 other predictors viz. 'drug usage', 'personality type', eating habits in the subconscious mind', 'age', 'relationship status', 'employment status'; 'exercise and/or meditation'; and 'gaming preferences' were found to have a gender-specific association with happiness. While intuitively these parameters have been associated with happiness for long, to our knowledge, this is the first of its kind of study to statistically correlate these variables with individual happiness scores measured through established questionnaire in the Indian population. Considering the limitation of sample number in this study, this exercise needs to be validated in a bigger sample pool for a stronger inference. Nevertheless, the information retrieved from this study might be extremely helpful in future counselling of individuals suffering from distress or severe depression and keep their better mental health.

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Supplementary Information

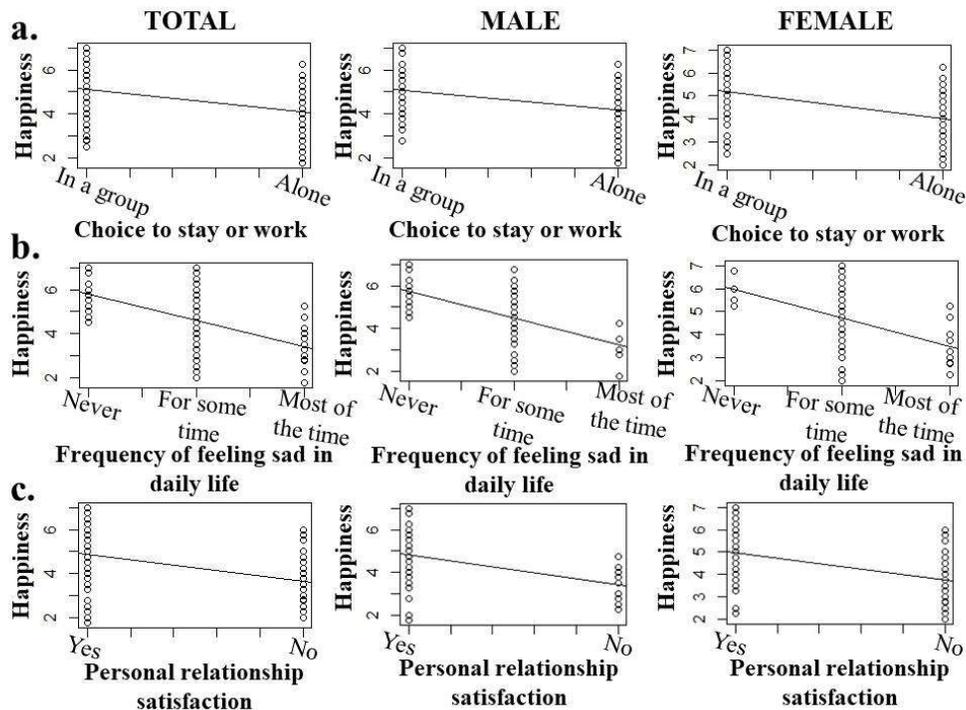
Case Sheet

Please fill in the blank and mark the correct option for the following parameters that are most appropriate to you.

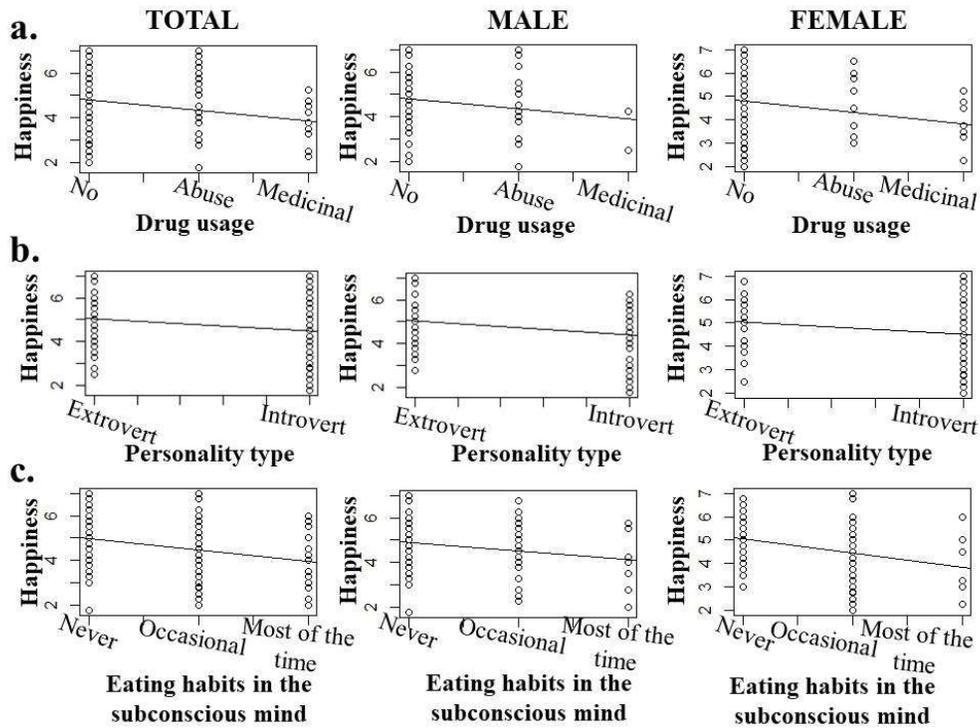
1. Age _____
2. Gender
 - a) Male
 - b) Female
3. Choice to stay or work in a group or alone
 - a) In a group
 - b) Alone
4. Exercise and/or meditation
 - a) Regular
 - b) Sometimes
 - c) Never
5. Drug usage
 - a) Abuse drugs (nicotine and alcohol)
 - b) Medicinal drug
 - c) No drug usage
6. Frequency of feeling sad in daily life
 - a) Never
 - b) For sometime
 - c) Most of the time
7. Personality type
 - a) Extrovert
 - b) Introvert
8. Music listening
 - a) Rock music
 - b) All types of music
 - c) Sad music
9. Relationship status
 - a) In a relationship
 - b) Married
 - c) Single
 - d) Separated
 - e) Divorcee
10. Personal relationship satisfaction
 - a) Yes
 - b) No

11. Gaming preferences
 - a) Outdoor games
 - b) Computer and/or mobile games
12. Eating habits in the subconscious mind
 - a) Never
 - b) Occasional
 - c) Most of the time
13. Employment status
 - a) Self-employed
 - b) Service
 - c) Professional
 - d) Fellowship holder
 - e) Unemployed

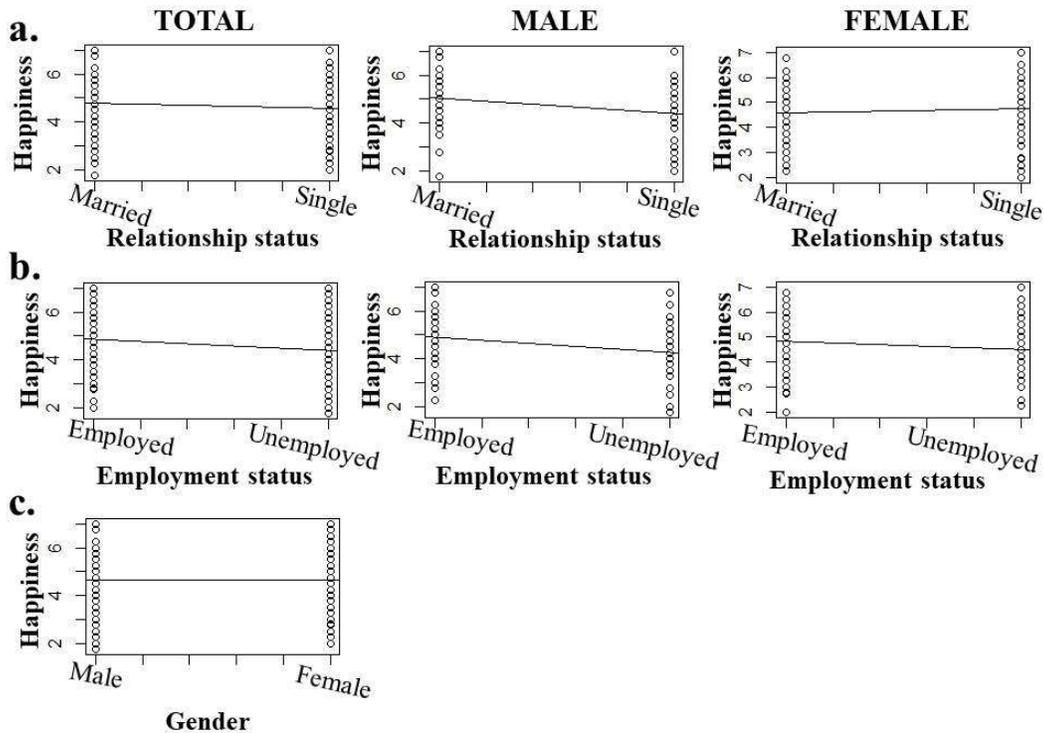
Supplementary figures



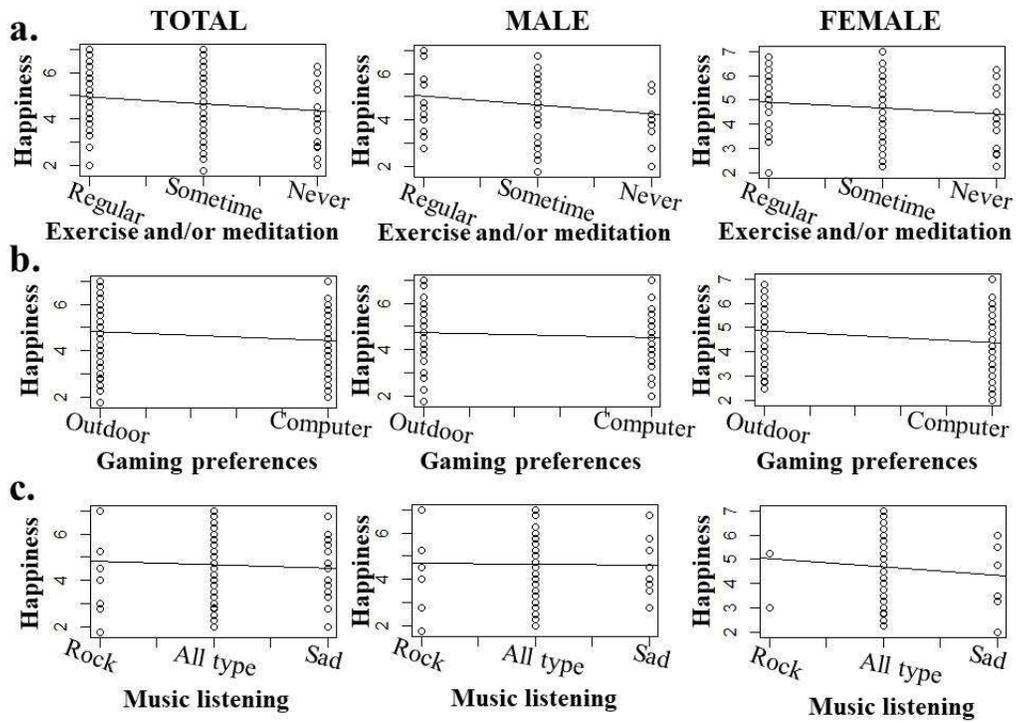
Supplementary Figure 1: Regression plots displaying the relationship between happiness and its predictor variables such as 'Choice to stay or work in a group or alone', 'Frequency of feeling sad in daily life', and 'Personal relationship satisfaction' with happiness.



Supplementary Figure 2: Regression plots displaying the relationship between happiness and its predictor variables such as 'Drug usage', 'Personality type', and 'Eating in the subconscious mind' with happiness.



Supplementary Figure 3: Regression plots displaying the relationship between happiness and its predictor variables such as 'Relationship status', 'Employment status', and 'Gender' with happiness.



Supplementary Figure 4: Regression plots displaying the relationship between happiness and its predictor variables such as 'Exercise and/or meditation', 'Gaming preferences', and 'Music listening' with happiness.