



Relationship between happiness and homesickness among students: structural equation modeling

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Abstract

Happiness is an important factor influencing the individual's mental health. This is especially important for university students which lead to their academic achievement. The present study aimed to investigate the relationship between happiness and homesickness. It was descriptive-correlational. 250 university students was selected by using Morgan's table and random stratified sampling method. The Oxford happiness and the utrecht homesickness questionnaires has been used for data collection. The findings of the study revealed that the measurement model had acceptable validity and reliability. In the second stage, the results revealed that the model fit was adequate. Therefore, homesickness predicted happiness of the students. In the analysis of path coefficients, the results revealed that all the paths were confirmed except for missing friends and adjustment difficulties. The results also confirmed that homesickness differs based on the place of residence of the students and in terms of gender, no difference was found between girls and boys participants. Therefore based on the results of this study, homesickness can predict the students' happiness.

Keywords: Happiness, Homesickness, Medical Sciences, Students

Introduction

In fact happiness which is sought after by all men is an individual's appraisal of life [1]. Such appraisal may be cognitive in nature, say value judgments one makes every day in different situations; therefore, happiness can be argued as consist of life satisfaction, positive emotions, and the lack of negative emotions [2]. Happiness occurs when one is satisfied with surrounding environment [3]. Other factors which influence happiness include introversion and neurosis [4], financial status, familial life, physical health, and employment status [5], life

meaning [6], and religion [7].

Happiness is an important element of a student's life. Therefore it is important to identify factors influencing happiness. Every year many students leave their homes to enter universities; despite taking advantage of new opportunities, they face inevitable challenges and stressors. One of the factors affecting the happiness of students is missing family and friends as a result of leaving home [8]. Homesickness is a complex cognitive, motivational, and emotional state marked

by excessive obsessive preoccupation with thoughts of home and a tendency to return to it and accompanied by a depressive mood and various psychosomatic symptoms [9]. Based on the cognitive stress theory, predisposing factors (individual and situational factors) may lead to immediate and long-term consequences by means of mediating cognitive factors (appraisal and coping); therefore leaving home can disrupt the balance of personal coping resources and situational demands (adjustment difficulties), if this perceived as a threat, the individual attempts to cope with it, if person fails to do so (ruminations about home), the immediate consequence would be homesickness (loneliness), and if this continues so it eventually leads to depression and anxiety [10].

Various studies have been conducted on homesickness. For example, Yeenso's [8] and Archer et al.'s [11] revealed that homesickness can lead to the lack of reassuring relationships and a feeling of loneliness, in turn leading to depression, anxiety, and even suicide. Stroebe et al. [12] found that there is a relationship between homesickness and mental health. Goossens et al.'s [13] and Heinrich and Galoni's reported that a feeling of loneliness is a causal factor in the health and wellbeing of people, and it has serious immediate and long-term consequences for the mental health of people [14].

However, few studies have been conducted on homesickness in Iran. Based on above, the question of this study is that "can students' homesickness predict their happiness?"

Method

The statistical population consists of all students of Birjand university of medical sciences (1500 people) 250 participants was selected by using Morgan's table and random stratified sampling method. School of public health, school of nursing and midwifery, and school of medicine were selected among the schools of Birjand university of medical sciences. Then, first year students were selected randomly. Questionnaires were distributed among students after the end of their classes and were recollected there. The participants were allowed to quit the study at any

time, and they could choose not to answer the questionnaire. Moreover, those questionnaires filled out incompletely were removed. Data was collected through the Oxford happiness questionnaire and the utrecht homesickness scale.

The utrecht homesickness scale was developed by Stroebe et al. for assessing the complex cognitive, motivational, and emotional state of homesickness which marked by obsessive preoccupation with thoughts of home and a tendency to return to it. It consists of five subscales: "Missing family," "Loneliness," "Missing friends," "Adjustment difficulties," and "Ruminations about home." It was validated by Ezhei et al. [15] in Iran. It has 39 items. Each item is assigned a score from 1 to 5. The higher the score shows the higher the level of homesickness. Stroebe et al. [10] reported 0.90, 0.85, 0.87, 0.88, and 0.80 for the subscales respectively. For evaluating the validity, content validity and construct validity was used (Table 1). For evaluating reliability, Cronbach's alpha, composite reliability, and Average Variance Extracted (AVE) were used (Table 1). Cronbach's alpha values were determined as follows, 0.83 for Missing Family, 0.86 for tendency to return to home, 0.78 for adjustment difficulties, 0.80 for loneliness, 0.81 for missing family, and 0.93 for happiness. This indicated the high reliability of the measurement.

Oxford happiness questionnaire was developed by Hills and Argyle to measure level of happiness or unhappiness. It includes 29 items and uses a 5-point Likert type scale. The higher score shows higher happiness. Hills and Argyle reported the reliability coefficient as 0.91 [16]. It was validated by Najafi et al. [17] in Iran, and they reported the test-retest reliability coefficients as 0.90 and 0.79, respectively. For evaluation of the validity, construct validity was used was confirmed. Reliability was determined as 0.87 by Cronbach's alpha.

The data were analyzed by the structural equation modeling that two-stage partial least squares method proposed by Holland for

hypothesis testing, and model fit in PLS.

Results

The analysis of the participants showed that 212 students (%84) were girl and 38 students (%16) were boy. 187 students (%75) lived in dormitories and 60 students (%25) lived in personal houses. The mean age of participants was 20.73 and its standard deviation was 3.77. In the first stage, the research measurement model was determined by the results of the confirmatory factor analysis. Moreover, to evaluate convergent validity and determine correlations, composite reliability 2 and AVE tests were performed. Composite reliability value was higher than 0.8 and the square

root of AVE equal to at least 0.5 are the two prerequisites of convergent validity and inter-construct correlations [18]. According to Table 1, reliability for all the variables and the square root of AVE were all in the specified ranges, indicating a high convergent validity. Also, all the constructs had acceptable factor loadings, indicating high inter-construct correlations (Table 1). According to the Fornell-Larcker criterion, the factor loading of greater than 0.5 indicates adequate validity [18]. Based on the results, all the constructs had factor loadings greater than 0.48 and the maximum factor loading was 0.896 so indicates high correlations.

Table 1 Composite reliability and root square of average variance extracted

	Homesickness					
	Missing family	Tendency to return to home	Adjustment difficulties	Loneliness	Missing friends	Happiness
Composite reliability	0.87	0.88	0.89	0.84	0.87	0.93
Root square of AVE	0.62	0.46	0.31	0.41	0.62	0.34

The second stage dealt with path analysis, model fit indices, and model fit. The indices in PLS indicated an adequate fit of the model. That is, if each index's value is between zero and one, and if it is greater than 0.5 and closer to 1, so this indicates a desirable model fit. These indices

were called absolute index 1 and relative index 2 and also the external model and internal model, respectively [19]. Therefore, Table 2 shows the model fit to be desirable. Based on this result, path analysis results can be used for testing the hypotheses and their interpretation.

Table 2 Model fit indices

Index	Absolute index	Relative index	External model index	Internal model index
Value obtained	0.28	0.60	0.95	0.61

According to Table 2, model fit indices indicate that model fit is acceptable. Path coefficients and p-value has been shown on the lines of the

research structural model (Figure 2), where path coefficient value is indicated by (B) and p-value is indicated by (P).

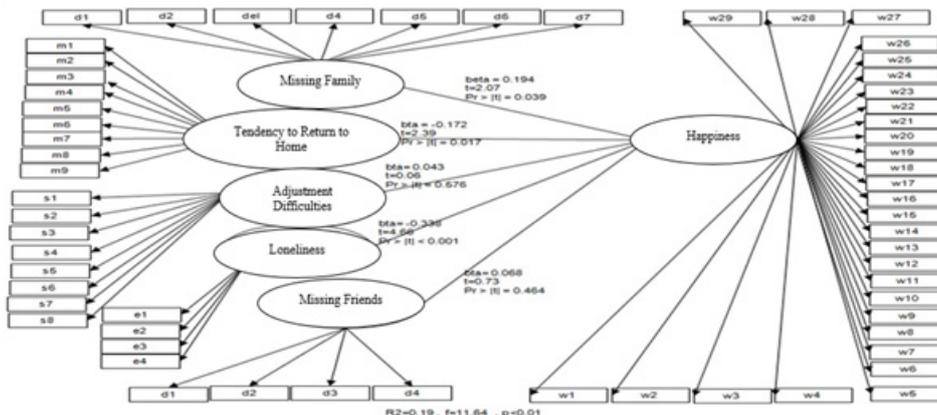


Figure 2 Research structural model with path coefficients and significance levels

Table 3 below shows the results of hypothesis testing using path coefficients and significance levels.

According to Table 3, Hypothesis 1 by the 0.19 effect size and 0.05 as significance level was confirmed. Hypothesis 2, by the 0.17 effect size and 0.05 as significance level was confirmed. Therefore, tendency to return to home can predict the happiness of the students. Hypothesis 3 by the 0.04 effect size and 0.05

as significance level was rejected. Therefore, adjustment difficulties cannot predict the students' happiness. Hypothesis 4 by the 0.34 effect size and 0.01 as significance level was confirmed. Therefore, loneliness can predict the students' happiness. Hypothesis 5 by the 0.07 effect size and 0.05 as significance level was rejected. This indicates that missing friends cannot predict the happiness of the students.

Table 3 Path coefficients and significance levels of the research hypotheses

Hypothesis		Regression coefficient	p	Result
Missing family	Happiness	0.19	0.04	Confirmed
Tendency to return to home	Happiness	0.17	0.02	Confirmed
Adjustment difficulties	Happiness	0.04	0.58	Rejected
Loneliness	Happiness	0.34	0.001	Confirmed
Missing friends	Happiness	0.07	0.46	Rejected

The multivariate ANOVA was used for the analysis of homesickness in terms of the place of residence (dormitories or personal houses). Box's M test and Levene's test showed the

equality of variances. Therefore, the students' homesickness significantly is different in terms of their place of residence. ($F_{(482,10)}=3.16$, $p=0.001$; Pillai's Trace=0.12; partial $\eta^2=0.065$).

Table 4 Students' homesickness in terms of their place of residence (dormitories or personal houses)

Independent variable	Dependent variables	Analysis results
Place of residence	Missing family	($F_{(2,244)}=4.85$, $p=0.009$, partial $\eta^2=0.038$)
	Tendency to return to home	($F_{(2,244)}=3.92$, $p=0.08$, partial $\eta^2=0.031$)
	Adjustment difficulties	($F_{(2,244)}=1.96$, $p=0.211$, partial $\eta^2=0.013$)
	Loneliness	($F_{(2,244)}=1.33$, $p=0.264$, partial $\eta^2=0.011$)
	Missing friends	($F_{(2,244)}=5.96$, $p=0.003$, partial $\eta^2=0.047$)

According to Table 4, in the analysis of all the dependent variables, significant difference was found only for the missing family and missing friends in terms of the place of residence. Therefore, it can be concluded that homesickness differs in terms of the place of residence and no significant difference was found in the analysis of homesickness in terms of gender. ($F_{(243,5)}=1.47$, $p=0.199$; Pillai's Trace=0.029; partial $\eta^2=0.029$).

Discussion

The results showed significant relationship between happiness and homesickness among students of Birjand University of Medical

Sciences. This means that homesickness can predict the students' happiness. This finding is consistent with Yeenso's [8] and Archer et al.'s [11] findings that showed homesickness can lead to the lack of reassuring relationships and a feeling of loneliness which in turn lead to depression, anxiety, and even suicide. In the same vein, Stroebe et al. [12] reported a relationship between homesickness and mental health and Goossens et al [13] and Heinrich and Galoni's reported that a feeling of loneliness is a causal factor in the health and wellbeing of people with serious immediate and long-term consequences for the mental health of people [14]. It is also in line with

the cognitive stress theory, which posits that the long-term consequences of homesickness include stress, anxiety, and depression [10]. Evidently, homesickness is closely related to mental health; since happiness is the main contributor to mental health. Therefore the findings of the study concerning happiness and homesickness among students seem reasonable.

The study also revealed that homesickness differs based on the students' residence. This finding is in contrast to Dehghan et al.'s [20] who did not find any significant relationship between the students' residence and their homesickness. But it is in line with Redmin's [21] who claimed that cultural changes as a result of leaving home can lead to homesickness, and also with Fritz et al.'s [22] who found that Asian and European students studying in America feel more homesick as a result of cultural effects. Since Birjand is farther from the central cities of Iran, and since it has no railway, therefore non-native students cannot easily commute to their home cities and feel more homesick. Moreover, since Birjand is a deprived region in the South Khorasan Province, this compounds the problem of homesickness of non-native students. Therefore, the findings of this study seem reasonable.

In the analysis of students' homesickness, no significant difference was found between boys and girls. This finding is consistent with study of Dunes [23]. But it is in contrast to Dehghan et al [11] who showed that girls feel more homesick in comparison to boys, and to Stroebe et al [12]. This can be due to the fact that nowadays girls are also free to choose their hobbies and are not too restricted in the past, hence they experience homesickness similarly. Therefore, it's seem that the results are reasonable.

One of the limitations of the study is that the population is restricted to Birjand university of medical sciences. The other limitation is the use of self-reports. Therefore, the results cannot be easily generalizable to other universities in Iran. Therefore, it is recommended that future studies use larger populations from diverse cultural and regional backgrounds.

Conclusion

Based on the results of the study, it can be concluded that homesickness can predict students' happiness. Therefore, considering the role of homesickness in predicting the criterion variable, it is recommended that the authorities provide appropriate cultural and recreational programs to alleviate the students' homesickness and improve their sense of happiness.

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Study design: MAB

Data collection and analysis: MAB

Manuscript preparation: MAB

Conflict of Interest

"The authors declare that they have no competing interests."

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