



The comparison of eating attitude and general health among native and non-native girl students of Tehran City universities, Iran

Mansoureh Shahriari-Ahmadi¹, Tiraje Javini², Razieh Kazemi²

1 Department of Psychology, School of Psychology, Central Tehran Branch, Islamic Azad University, Tehran, Iran

2 Department of Psychology, School of Psychology and Educational Sciences, Alzahra University, Tehran, Iran

Original Article

Abstract

BACKGROUND: The purpose of this study was to compare the attitude toward nutrition and general health in native and non-native students.

METHODS: The statistical population of this study included all female students with emphasis on the students who were studying at Islamic Azad University of Tehran, Iran, in the year 2017-2018. According to the Morgan's table, a sample of 320 people was selected using the convenience sampling method and was divided into two groups of 160 people. Regarding the purposefulness of the emphasis on the indigenous and non-homogeneous nature of the students by matching the groups (in order to control the variables of gender, economic status, marital status, age, and educational level), the non-native group was first identified and then the native group was matched. In this research, Eating Attitudes Test (EAT) (Garner and Garfinkel, 1979) and General Health Questionnaire (GHQ) (McDowell et al., 1996) were used. To analyze the data obtained from independent t-test, multivariate analysis of variance (MANOVA), and multivariate regression, SPSS software was used.

RESULTS: There was no significant difference between attitude toward nutrition and general health in native and non-native students.

CONCLUSION: Higher attention should be paid to non-native students' nutrition.

KEYWORDS: Nutritional Status; Health; Students

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Introduction

Students are considered to be at a high risk due to changing of their place of residence and sudden separation from family and thus, social planning for them is of high importance because any disruption in their lives prevents the growth and prosperity of their talent. Attending classes, participating in exams, doing homework and projects, roving, heavy expenses and living costs, family and university expectations, being away from the family, and ambiguous future are of the public

health threats among the students.¹ In this regard, students' type and style of nutrition and nutritional attitude may also change. Given the wide variety of food promotions and the willingness of women and girls to stay slim, nutritional attribute can affect the general health of students. The nutritional attitude has a psychological-cognitive structure that addresses the habits people have in their eating and this can affect the person's health (mental and physical).² Since the age group of 18-24 years is moving from adolescence to adulthood and it affects the health status of the next generation, so dieting is not attractive in this age group.³ Eating disorders first begin with mild conditions such as disturbed

Corresponding Author:

Tiraje Javini; Department of Psychology, School of Psychology and Educational Sciences, Alzahra University, Tehran, Iran

Email: tiraje.javini73@gmail.com

nutritional attitudes and an abnormal attitude toward eating which includes abnormal attitudes toward the current and ideal weight, mental image of the body and eating behaviors, mental attitudes towards food and their metabolism in the body, and methods of nutrient excretion from the body, which ultimately result in severe and almost non-returnable moods, such as anorexia and nervous overeating.⁴ Most students feel the need for a change in diet; they think about nutritional aspects of foodstuff and agree with the option to get information about healthy nutrition.⁵ In a study, nursing and midwifery students showed positive thoughts in terms of steps to change the desired nutritional behavior and attitudes toward nutrition among them.⁶ In another investigation, it was shown that a large percentage of adolescents were at risk of eating disorders and were more likely to develop nutritional disturbances, while this problem was more common among girls.⁷

Besides, non-native students are typically away from their family for a long time. Change in the order of life in addition to emotional problems due to economic burden can affect other issues such as general health.⁸ General health is the feeling of goodness and assurance of self-efficacy, self-reliance, competition capacity, intergenerational attachment, and self-actualization of potential intellectual and emotional capabilities.⁹ General health is a knowledge helping people to adapt to their environment and choose the right solutions for problems by developing accurate psychological and emotional ways.¹⁰ General health is a function of various social and cultural factors. After entering the university, the student faces a new environment that is different from his/her previous life and past social environment, and during his/her education, he/she will encounter many problems, each of which can impose down the general health of this stratum. Entering a new environment, staying away from the family, and the difference between mental models of

life and existing facts are examples of stressors and anxieties that need to be balanced by providing the appropriate environment and conditions for achievement of students' general health.¹¹ Otherwise, it will result in academic failure, individual, social, and communicative problems, and lack of prosperity in talents.¹² University students compose the young generation of society and are considered to be active members of the community. Having a good level of general health (mental-physical) is effective on various aspects of life, including personal, social, educational, and occupational dimensions.¹³ In a statistical study, it was reported that 39% of students were suspected of physical or mental disorder, and the rate of depression and social function disorders in non-native students was higher.¹⁴ However, another work reveals that no difference exists between dormitory and non-dormitory students in terms of mental health.¹⁵ In addition, students, today, face more psychological problems compared to the past, and these issues cause such problems as class absenteeism, disorientation in logical thinking, and academic failure.¹⁶

As it can be seen in the society, women are exposed to various physical illnesses. However, having a nutritional attitude and a suitable level of general health at a young age can prevent the occurrence of many diseases in older ages. Addressing this issue and finding differences in terms of nutritional attitude and general health among native and non-native students can be different ways of helping to achieve better ways to raise the level of health. Besides, investigations on health, its dimensions, and its predictive, preserving, and promoting factors have constantly been considered in personal and social life, and now, with respect to changing of effective patterns on health, recognition of factors which affect physical, psychological, and social health is highly important. Accordingly, we tried to examine following hypotheses in this study:

- There is a difference between native and

non-native female students in terms of nutritional attitudes.

- There is a difference between native and non-native female students in terms of general health.

Materials and Methods

Present study is a practical and causal-comparative work in terms of objective and research method, respectively. The statistical population included all female students studying in Islamic Azad University of Central Tehran Branch, Tehran, Iran, in 2017-2018. The total number of these students is 1500 people. Given the Krejcie and Morgan's table on sample size determination, the acceptable sample size was 306. However, in order to enhance validity of study, a sample of 320 was selected using convenience sampling. Given the objective on being native or non-native, the samples were divided into two groups of 160. In other words, primarily, 320 students including 160 native and 160 non-native ones were selected based on convenience sampling. Here, Garner and Garfinkel's Eating Attitudes Test-26 Item (EAT-26)¹⁷ and McDowell et al.'s General Health Questionnaire (GHQ)¹⁸ were used for measurement and data collection, which are described as follows:

EAT-26: EAT has 26 items and three subscales including dieting, bulimia and preoccupation, and oral control which measure affairs associated with attitude, habits, and behaviors of eating.¹⁷

The questions are scored based on Likert's method as "never and rarely", "often", "usually", "always" (0-3). The maximum score is 78 and the score of 20 or higher is defined as a disturbed eating attitude. Question 26 is scored in reverse order. In a study conducted on 161 Brazilian women, the Cronbach's alpha coefficient for each item was reported to be 0.75.¹⁹

The validity of the test was obtained with a Cronbach's alpha coefficient of 0.82. Moreover, to examine the reliability of this test, the split-half method was used whose coefficient was

reported in the range of 0.69-0.73.¹⁹ Mollazadeh et al. implemented this inventory on 110 students to calculate its validity and reliability; the corresponding validity and reliability were found to be 0.76 and 0.86, respectively, through Cronbach's alpha and correlation test, indicating a reasonable reliability and validity.²⁰

GHQ: This instrument is a single-factor test with 28 items. The questionnaire has a 4-point Likert scale (from far less than usual to more than usual), and each item has a value in the range of 1-4 given by respondents. Validity of the questionnaire was confirmed by the scholars and professors and its reliability was proven through a Cronbach's alpha of above 0.70.²¹

Results

In order to analyze the data obtained by questionnaires, descriptive and inferential statistics and indicators were used to derive the frequency, percentage, mean, and standard deviation (SD). After ensuring establishment of parametric test assumptions, according to the purpose of the research to compare the variables between native and non-native groups of students, independent t-test and multivariate analysis of variance (MANOVA) were used based on the single-factor or multi-factor mode of the questionnaires using the SPSS software (version 22, IBM Corporation, Armonk, NY, USA).

In this section, by computing the core indicators and dispersion, characteristics of the sample group and the distribution way and information contained in the variables of this research were compared between female native and non-native students of Islamic Azad University of Tehran. The results are reported as follows:

As reported in table 1, 320 students participated in this study, 160 of whom were native and 160 were non-native students. The average age of the native group was 22.86 years with a SD of 7.33, while that of non-native students was 23.53 years with a SD

of 6.77. Also, the highest percentage of participants belonged to the grade of Bachelor of Science (BSc) in both groups and a low number studied in doctorate grade.

Table 1. The participants' educational status/grade and their main age

Grade	Native students	Non-native students
BSc [n (%)]	120 (75.00)	132 (82.50)
MSc [n (%)]	32 (20.00)	26 (16.25)
Doctorate [n (%)]	8 (5.00)	2 (1.25)
Total [n (%)]	160 (100)	160 (100)
Age (mean \pm SD)	22.87 \pm 7.33	24.53 \pm 6.77

SD: Standard deviation

As it can be seen, table 2 presents the mean and SD for the variable of eating attitude and its subscales, as well as general health among native and non-native students.

Hypothesis 1: There is a difference between native and non-native female students in terms of eating attitudes.

To analyze this hypothesis, MANOVA was used (due to the inclusion of eating attitude subscales in the analysis). Table 2 reports the P-values as well ($P > 0.050$).

Furthermore, variances equality assessment showed that variance analysis could be used to examine this hypothesis. Consequently, table 3 reports the results of MANOVA.

The results of MANOVA showed that there was no significant difference between native and non-native students in terms of eating attitude and its subscales ($P > 0.050$).

Hypothesis 2: There is a difference between native and non-native female students in terms of general health.

Regarding the establishment of parametric

test assumptions, as well as the questionnaire's single-factor status, independent t-test was used to examine this hypothesis. The results of variances equality test showed that variances were not equal in the two groups ($P < 0.050$, $F = 278.10$). Therefore, the t-value was used for the groups with heterogeneous variance.

Table 3. Results of multivariate analysis of variance (MANOVA)

Test	Statistics	F	P	Eta
Wilk's Lambda	0.925	0.699	0.561	0.075

Independent t-test results for assessing general health among native and non-native students ($P = 0.520$) indicated no significant difference between native and non-native students in terms of general health ($P > 0.050$).

Discussion

University students are considered to be at high risk because of the change in their place of residence and sudden separation from the family. Therefore, social planning is important to them. In this regard, the type and style of nutrition and the eating attitude and general health of students may change. For this purpose, the present study was developed to compare native and non-native students in terms of eating attitude and general health. In so doing, since nutrition and general health are of high importance and correlated among academic students, the present study tried to investigate these issues simultaneously.

Table 2. Comparison of eating habits and general health between native and non-native groups

Variable	Group	Mean \pm SD	Minimum	Maximum	P
Eating attitude	Native	16.40 \pm 9.66	3	38	0.754
	Non-native	16.26 \pm 11.51	3	41	
Dieting habits	Native	7.93 \pm 6.38	0	20	0.941
	Non-native	9.06 \pm 7.11	1	25	
Bulimia and preoccupation	Native	2.93 \pm 3.28	0	9	0.179
	Non-native	2.00 \pm 2.85	0	9	
Oral control	Native	5.53 \pm 3.39	0	11	0.077
	Non-native	5.20 \pm 4.61	0	12	
General health	Native	81.06 \pm 7.70	71	93	0.520
	Non-native	78.20 \pm 15.10	52	97	

SD: Standard deviation

Here, each presented hypothesis and the relevant results will be discussed.

Hypothesis 1: Given the above results, the hypothesis was not approved. Accordingly, it can be noted that the non-native students' eating attitude is consistent with the nutritional standards and culture of the residents of Tehran. In general, living environment of native and non-native students was the same. Native and non-native students often spend their eating time together at the university, and the close friends' nutritional habits and attitudes coincide.

Barati *et al.* indicated a significant relationship between attitude and the variables of being on a diet, weight loss, and place of residence. They also suggested that eating fast foods was more common among boys as well as students living in dormitories.²²

Hypothesis 2: Independent t-test results showed no significant difference between native and non-native students in terms of general health ($P > 0.050$). Therefore, this hypothesis was not supported. Accordingly, flexibility and compatibility of non-native students with the new conditions and the new city can be pointed out. Studying in a metropolitan area like Tehran is one of the educational priorities of those living in other cities. These students are willing to tolerate such issues as distance from home and family due to educational facilities, higher quality of universities, and attractions in Tehran, and maybe these conditions will boost the sense of personal autonomy and self-sufficiency and therefore, their general health will not be affected by these conditions. This finding is in line with Afshari and Rakhshani's study, where the factors associated with new university students' mental health were evaluated. The results indicated no significant difference between native and non-native students in terms of their mental health.²³ This finding is also in parallel with Dehghan's study in which no significant difference was

found between native and non-native university students of Shiraz University of Medical Sciences, Shiraz, Iran, in terms of psychological well-being.²⁴ In contrast, finding of the present study is not in line with the study of Nuri and Shokri, in which female native and non-native university students were compared in terms of cultural intelligence, loneliness, academic burnout, and mental health and it was shown that mental health of native students was better than that of non-native ones.²⁵

The collective and group life, especially in university student dormitories, is an environment in which the student encounters problems by entering the meta-family space and getting ready to form an independent life and the future community.²⁵

It is suggested to conduct this topic in a broader way (other gender and universities) and compare the results. In other words, it is proposed to be conducted in multiple academic centers with no gender limitations.

Same as all studies, the present work faced following limitations: The sample group in the present study consists of native and non-native female students of Islamic Azad University, Central Tehran Branch, and the results cannot be generalized to all female academic students since the sampling was not done from multiple centers and it was conducted based on convenience approach. Thus, it may not be generalized to native and non-native women of entire society.

Conclusion

Given the results, it is necessary to address the students' issues in this period. Despite the problems and issues of non-native students, the results of present study showed that eating attitudes and general health were not significantly different among native and non-native students. In explaining these findings, the desirability of recreational facilities for non-native students in Tehran Metropolis, the

same education level to native students, and the desirable quality of education can be pointed out.

Conflict of Interests

Authors have no conflict of interests.

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