

# Students' Aggression and Its Relevance to Personal, Family, and Social Factors

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## Abstract

**Background:** Aggression is defined as behaviors intended to hurt, harm, or injure another person. Aggression is by no means a new concern in human society, especially in youth. Universities are among the institutions in which most of the members are young people and because of facing with various personal and social stressors, the students usually experience high level of stress.

**Objectives:** This study aimed to determine aggression among university students and its association with their personal, family, and social characteristics.

**Materials and Methods:** This cross-sectional, analytic study was conducted on a representative sample (n = 809) of university students (1 state university and 2 private universities) locating in Gonabad, Iran in 2012. Using proportional to size stratified sampling, we selected the respondents and gathered the required data using a valid and reliable questionnaire. The data were entered into SPSS (version 20) and analyzed through t test, ANOVA, and regression model.

**Results:** A total of 381 (47.2%) male and 428 (52.8%) female students participated in the study. Mean (SD) age of the respondents was 21.79 (2.86) years. Overall mean aggression score (SD) in the students was 72.45 (15.49) and this score for in dorm and out of dorm students was 74.31 (15.59) and 70.93 (15.23), respectively. There were significant associations between the mean aggression score of dormitory students and sex (P = 0.004), age (P = 0.044), and type of the university (P = 0.039). On the other hand, there was no significant association between all independent factors and mean aggression score of students living out of dorm.

**Conclusions:** Regarding the control of aggressive behaviors, paying attention to male, young students living in dormitory, especially in non-governmental universities has the highest priority.

**Keywords:** Aggression, University, Private Sector

## 1. Background

Aggression is defined as behaviors intended to hurt, harm, or injure another person (1). It is rooted in an overall structure which could appear in the forms of anger, violence, physical, verbal, and relational aggression (2, 3). Aggression could be a product of our interactions with individuals in our environment (4) which, its severity greatly differs across countries and cultures (5). There are various studies indicating relations between aggressive behaviors and sex (6-11), household income (8-11), marital status (12), and age (7, 10, 13). Aggression is by no means a new concern in human society, especially in youth. Aggressive behaviors in the young people are complex, heterogeneous with diverse etiologies and consequences. So, no single term is adequate to capture all variegated and divers presentations of such behaviors in youth (14).

Moreover, universities are among the institutions in which most of the members are young people (14) and because of facing with various personal and social stress-

ors, the students usually experience high level of stress (15). Evidence indicates that aggressive behaviors are seen among university students (16). They are a particular group of people in a critical transitional period (17). Many reasons such as academic stress, new community relation, and changing in life conditions could increase possibility of the students' aggressive behaviors (18). It is also indicated that student aggression would be related with type of university (19) and level of education (20). This study aimed to evaluate potential associations between students' aggression and their personal, family, and social characteristics.

## 2. Objectives

This study aimed to determine aggression among university students and its association with their personal, family, and social characteristics.

### 3. Materials and Methods

#### 3.1. Design

This analytic, cross-sectional study was conducted in Gonabad, a collegiate city in eastern Iran in 2012.

#### 3.2. Participants and Setting

There are 3 universities in the city with more than 10000 students, as the research population. The inclusion criteria were the students' willingness to participate in the study, having no obvious mental and physical disorders, and studying in the first semester of 2011 - 2012 academic year. We excluded any participants who failed to complete the questionnaire as well as those who were not willing to continue the study.

#### 3.3. Sampling and Data Collection

Using the following formula, a minimum size of 784 the participants was determined. However, to gain a higher validity, in case of potential problems during the study process, the required sample size increased to 860.

$$(1) \quad N = \frac{pq \left( z_{(1-\frac{\alpha}{2})} + z_{(1-\beta)} \right)^2}{d^2}$$

Where,  $p = 0.5$ ,  $q = 0.5$ ,  $Z(1 - \alpha/2) = 1.96$ ,  $Z(1 - \beta) = 0.84$ , and  $d = 0.05$ .

The relevant official permits were issued to perform the sampling and accomplish the research. We first selected each university, as a stratum. According to the performed coordination, the sampling frame was used. Using probability proportional to size stratified sampling, we selected 860 students of Gonabad University of Medical Sciences (GMU) ( $n = 120$ ), Islamic Azad University (Gonabad branch) ( $n = 380$ ), and Payame Noor University (Gonabad branch) (360), based on their sex and marital status in each stratum. Later, 51 participants were removed due to filling incomplete questionnaire

#### 3.4. Measurement Tools

We applied Bass-Parry aggression questionnaire (21, 22) concentrating on physical aggression (9 items), verbal aggression (5 items), anger (7 items), and hostility (8 items). Buss and Perry reported a Cronbach  $\alpha$  coefficient at 0.89 and test-retest reliability at 0.80 (21). This is a bias free (23), self-report questionnaire, which is used in most countries (24) and consisting of 29 sentences valued at a Likert scale from 1 (Extremely uncharacteristic of me) to 5 (Extremely characteristic of me). This questionnaire is validated in Iran (2) via Cronbach  $\alpha$  coefficient (0.89). To collect the data, we first distributed the questionnaires among the participants. Then, the fulfilled questionnaires were gathered 1-2 days later. The students who did not return the questionnaires were replaced by other participants. We continued the process until collecting the required questionnaires.

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#### 3.5. Data Analysis

Using SPSS (version 18), we analyzed the gathered data via t test, ANOVA, and linear regression model. We checked normality assumptions of the variables via P-P plots. There were not any considerable deviations from the normality line. Regarding the regression assumption, the distribution of aggression scores was independent. Besides, the distribution of errors was normal and using Durbin-Watson, errors independency was acceptable. In this study,  $P < 0.05$  was considered as significance level.

#### 3.6. Ethical Consideration

This study was approved by Student Research Committee of Gonabad University of Medical Sciences. Before starting the study, the authors legitimized the universities' authorities. Furthermore, the participants were informed about the goals of the study. After receiving the participants' verbal consent, the questionnaires were distributed among them. Participants' privacy and confidentiality principles concerning the gathered data were observed by the authors. Moreover, all respondents were free to leave the study in each phase.

### 4. Results

We analyzed the data of 809 fulfilled questionnaires out of 860 (response rate: 94%). Table 1 shows the students' characteristics which was investigated in this study.

The mean aggression score of the students was 72.45 (SD = 15.49). The average age of the respondents was 21.78 (SD = 2.86) years. There was no significant association between age and aggression ( $P = 0.065$ ). Relations of the respondents' aggression score and variables under study are seen in Table 2.

According to the results, the mean score of aggression among students who lived in dormitory (in-dorm) was significantly higher than those students who lived out of dorm. Since P value for age and sex was less than 0.200, we entered these variables with residency status in a linear regression model, simultaneously. Table 3 shows the results of the model.

The results showed that, after controlling age and sex, there was no difference between mean aggression score of the students in terms of residency status. Then, we evaluated mean score of aggression of the students in terms of residency status. Tables 4 and 5 show the results.

The mean aggression score in male students who lived in dorm was significantly higher than female students residing in dorm. Meanwhile, the mean score of aggression in Gonabad Medical University students who lived in dorm was significantly lower than in dorm students of other universities. There were no significant differences between aggression scores and the independent factors among out-of-dorm students.

We can see in Table 5 that a significant, inverse association exists between age of the students living in dorm and their aggression scores. According to the results, residency status can be considered as a confounder in this research. So, we should analyze the data in two separate levels in terms of residency status. As it is seen, there

was no association between the mean aggression score of the respondents who lived out of the dorm and their sex, marital status, residency situation, university, and age. In contrast, there were significant association between aggression scores of the students lived in dorm and their sex, university, and age.

**Table 1.** Frequency Distribution of Characteristics Among the Respondents<sup>a</sup>

Variables	Frequency
<b>Gender</b>	
Male	382 (47.3)
Female	427 (52.7)
<b>Marital status</b>	
Single	633 (78.7)
Married	171 (21.3)
<b>Residency situation</b>	
Hometown	342 (45.1)
Not hometown	417 (54.9)
<b>University</b>	
Gonabad University (GMU)	108 (13.43)
Islamic Azad University	356 (44.1)
Payame Noor University	345 (42.6)
<b>Residency status</b>	
In dormitory	378 (47.2)
Out of dormitory	424 (52.8)
<b>Education term</b>	
Below 5	406 (55.8)
5 and over	321 (44.2)

<sup>a</sup>Data are presented as No (%).

**Table 2.** The Respondents' Aggression Score and its Association With Their Characteristics

Variables	Mean ± SD	P Value
<b>Gender</b>		0.106 <sup>a</sup>
Male	73.35 ± 14.87	
Female	71.59 ± 15.97	
<b>Marital status</b>		0.618 <sup>a</sup>
Single	72.61 ± 15.58	
Married	71.94 ± 15.07	
<b>Residency situation</b>		0.602 <sup>a</sup>
Hometown	72.15 ± 16.09	
Not hometown	71.55 ± 15.07	
<b>University</b>		0.266 <sup>b</sup>
Gonabad University (GMU)	70.75 ± 14.11	
Islamic Azad University	73.33 ± 14.92	
Payame Noor University	72.08 ± 16.44	
<b>Residency status</b>		0.002 <sup>a</sup>
In dormitory	74.31 ± 15.59	
Out of dormitory	70.93 ± 15.23	
<b>Education term</b>		0.664 <sup>a</sup>
Below 5	71.81 ± 15.74	
5 and over	71.30 ± 15.32	

<sup>a</sup>t test.

<sup>b</sup>ANOVA.

**Table 3.** Association Between the Respondents' Aggression Score and Their Characteristics

Variables	Unstandardized Coefficients		Standardized Coefficients		P Value
	B	Std. Error	Beta		
Residency status	-1.963	1.208	-0.063		0.105
Gender	-0.889	1.245	-0.028		0.475
Age	-0.378	0.208	-0.070		0.0710

**Table 4.** The Respondents' Aggression Scores and Their Characteristics in Terms of Residency Status

Variables	Residency Status					
	In Dorm			Out of Dorm		
	No. (%)	Mean ± SD	P Value	No. (%)	Mean ± SD	P Value
<b>Gender</b>			0.004 <sup>a</sup>			0.706 <sup>a</sup>
Male	139 (36.87)	77.27 ± 13.97		238 (56.13)	71.18 ± 14.96	
Female	238 (63.13)	72.48 ± 16.19		186 (45.87)	70.61 ± 15.61	
<b>Marital status</b>			0.056 <sup>a</sup>			0.201 <sup>a</sup>
Single	311 (82.71)	75.01 ± 15.95		317 (75.30)	70.41 ± 14.90	
Married	65 (17.29)	70.94 ± 13.50		104 (24.70)	72.61 ± 15.92	
<b>Residency situation</b>			0.156 <sup>a</sup>			0.571 <sup>a</sup>
Hometown	77 (23.05)	75.44 ± 17.38		263 (62.62)	71.30 ± 15.56	
Not hometown	257 (76.95)	72.30 ± 15.37		157 (37.38)	70.43 ± 14.64	
<b>University</b>			0.039 <sup>b</sup>			0.813 <sup>b</sup>
Gonabad University (GMU)	104 (27.51)	71.00 ± 14.04		3 (0.71)	68.67 ± 14.04	
Islamic Azad University	206 (54.50)	75.60 ± 14.64		146 (34.43)	70.34 ± 14.69	
Payame Noor University	68 (17.99)	75.47 ± 19.63		275 (64.86)	71.27 ± 15.54	
<b>Education term</b>			0.075 <sup>a</sup>			0.220 <sup>a</sup>
Below 5	192 (59.08)	74.11 ± 16.44		210 (52.90)	69.76 ± 14.78	
5 and over	133 (40.92)	70.93 ± 14.83		187 (47.10)	71.64 ± 15.70	

<sup>a</sup>t test.<sup>b</sup>ANOVA.**Table 5.** Relation Between Aggression Score of the Respondents and Their age in Terms of Residency Status

Variable	Living in Dormitory				Living out of Dormitory			
	Unstandardized Coefficients		Standardized Coefficients	P Value	Unstandardized Coefficients		Standardized Coefficients	P Value
	B	Std. Error	Beta		B	Std. Error	Beta	
Age	-0.805	0.397	-0.112	0.044	-0.173	0.233	-0.037	0.459

## 5. Discussion

This study aimed to evaluate the students' aggression and its association with their personal and social characteristic. Based on the study results, paying attention to aggressive behaviors among the students as well as recognizing some potential associations would be useful to control and diminish aggression among them.

According to the results, there were significant relations between students' aggression and their sex and residency status, while there were no such associations with the respondents' sex, level of education, marital status, and residency condition. After controlling the potential confounding effect of residency status (in-dorm, out-of-dorm), aggression score of those students who lived out of dorm had no significant relation with their characteristics. Among in-dorm students, however, there were significant associations between their aggression score and sex, age, and university.

Our results indicated that mean score of aggression for in-dorm students was higher than those students who lived out of dorm. This finding is justifiable as these students usually live in a stressful condition and far from their home. So, they may have low tolerance threshold against stressors and could not manage well such conditions. Besides, aggression would be a product of interactions with individuals in an environment (4). Therefore, living in dorm would increase aggressive behaviors among students because of personal contacts as well as maladaptive behaviors. There are various studies concentrating on aggressive behaviors and some of the causes among students who lived in dorm (25).

Our results showed the aggression mean score of the male students was significantly higher than the female students who lived in dormitory which was comparable with many studies (26-28), except Anderson et al. results (29). Differences between the students' age groups as well as using different tools to evaluate their aggression could probably be potential reasons for discrepancy of the results.

We found an association between aggression and the students' university; mean score of students' aggression who lived in dorms of Gonabad Medical University which is a state university, was significantly lower than those in-dorm students of the private universities (i.e. Islamic Azad and Payame Noor universities). Our result was not comparable with Hadibahrami et al. result (19). This may be because of controlling residency status, as a confounder, in our study.

According to our results, there was a significant and inverse association between the in-dorm students' age and their aggression score which was similar to Swanson (12) findings. Our result was not comparable with Hess and Hagen (30) as well as Mousavi et al. (31) results probably because of difference between the study groups.

We did not find any relation between the respondents' education term and their aggression score. Contrary to our finding, Sharma (20) indicated that mean scores of

master students in anger scale were significantly lower than those of bachelor students. One of the potential causes to this discrepancy would be the use different tools for evaluating aggression.

Our results did not show any association between aggression and marital status. Swanson et al. (12), however, showed that aggression score of married persons was significantly more than that of singles. Surprisingly, Grassi et al. (32) found that single individuals had more aggressive behaviors than married persons. Although use of different tools to evaluate aggression as well as research on different study groups would be potential causes of these discrepancies, more studies to discover the potential associations are recommended.

### 5.1. Limitations

One of the limitations of this study is the method of gathering data which was self-report. The researchers, albeit, offered required comments when the questionnaires delivered to the respondents. Besides, this study was conducted on university students; so, our results could not be generalized to all young people. To determine aggression condition between student and nonstudent youth, appropriate research is recommended.

### 5.2. Strong Points

Research on relevant sample size and sampling method as well as a separate analysis among in-dorm and out of dorm students are strong points of our study. Indeed, one of the important points of our study was considering the living condition of students (in-dorm, out of dorm) as a confounding variable.

According to our results, we recommend holding educational programs related to stress management for students as well as providing more facilities with respect to cultural and exercise activities for refreshing students, especially for in-dorm students. These activities would fill both their leisure time and reduce their stress affecting aggressive behaviors.

Increasing the number of day shift university students implicitly indicates the necessity of recognizing students' characteristics and their relational problems as well as finding methods to diminish these difficulties. Therefore, our results could be beneficial for policy makers as well as deans of the Iran universities.

In conclusion, this study showed that mean aggression score of in-dorm students was significantly higher than those students who lived out of dorm. Besides, aggression score of the male students was higher than the female students. There was also an inverse association between the students' age and their aggression score. So, regarding the control of aggressive behaviors, paying attention to male, in-dorm students, especially younger ones has more priority. Besides, relation between the

participants' aggression score and type of the university in terms of state and private would be a proxy of family, social, and economical discrepancies. More assessment concerning the latter association is recommended.

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## Footnote

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