Achievement Motivation: A Case Study of the Students of Kermanshah University of Medical Sciences, Iran

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Abstract

Background: Motivation is defined as the development of an individual’s desire to succeed and participate in the activities in which success depends on personal effort and ability.

Objectives: The present study aimed to evaluate the status of achievement motivation in university students.

Methods: This cross-sectional study was conducted on 182 medical, dentistry, and pharmacology students at Kermanshah University of Medical Sciences (KUMS), Iran in 2018. The participants were selected via simple random sampling with a probability appropriate to the selected sample size. Data were collected using a self-report questionnaire. Data analysis was performed in SPSS version 16 using chi-square and t-test at the significance level of 95%.

Results: The mean age of the participants was 21.14 ± 1.68 years (age range: 19 - 25 years). The mean score of achievement motivation was 77.64 ± 7.35, which indicated that the participants obtained 66.93% of the maximum score. In addition, 89.5% and 10.5% of the students had moderate and favorable achievement motivation, respectively. Achievement motivation was significantly correlated with age (P = 0.031), male gender (P = 0.022), and maternal education level (P = 0.018).

Conclusions: According to the results, the achievement motivation of the majority of the KUMS students was moderate. Therefore, proper planning is required to improve the achievement motivation of these students.

Keywords: Achievement Motivation, Student, Medical Sciences, Kermanshah
succeed in performance and enjoy the satisfaction that accompanies success in performance (10). Achieving success and the proper performance of students is a major concern of academic organizations and institutions (11). Students have different degrees of motivation for academic achievement, as well as varying levels of effort (12).

According to the literature, students with a higher level of motivation tend to have more academic achievements (13). Several factors affect the development of academic motivation (14). In this regard, Bakhshandeh Bavarsad et al. evaluated the nursing students in Ahvaz Jondishopour University of Medical Sciences (Iran), reporting that the motivation of the students was most significantly influenced by achieving fellowship, opportunities to help their families, and living a dignified life (15). Furthermore, Kashfi et al. stated that extensive research is required to identify the main influential factors in the academic motivation of university students (16).

2. Objectives

Given the importance of achievement motivation in students and the lack of similar studies on the student population of Kermanshah University of Medical Sciences (KUMS), the present study aimed to evaluate the status of achievement motivation in the medical, dentistry, and pharmacology students of KUMS.

3. Methods

3.1. Study Design

This cross-sectional study was conducted on 182 medical, dentistry, and pharmacology students at KUMS, Iran in 2018. For sampling, we initially considered the medical, dentistry, and pharmacology schools of KUMS as clusters, and the participants were selected via simple random sampling with a probability proportional to the sample size in each cluster. Data were collected using a self-report questionnaire. Out of 182 selected students, 171 students participated in the study voluntarily (response rate: 93.9%).

The inclusion criteria of the study were being a medical, dentistry, or pharmacology student at KUMS and having completed a minimum of one semester at the time of the study. The exclusion criterion was unwillingness to continue participation in the research.

3.2. Measures

The questionnaire consisted of two sections; the first section contained demographic data (six items), including age (year), gender (male/female), school (medicine, dentistry, pharmacology), paternal education level (below diploma, high school diploma, academic), maternal education level (below diploma, high school diploma, academic), living in a dormitory (yes/no), and academic achievements (based on grade point average [GPA]).

The second section of the research instrument was the achievement motivation questionnaire (AMQ), which was developed by Hermans in 1970. Hermans initially prepared 91 items to compile the questionnaire and reduced the number of the items to 35 by researching a sample of first-year students in the fields of psychology, law, mathematics, and biology; the final questionnaire was developed with 29 items in subsequent research (17). The score range of AMQ is 29 - 116, and the achievement motivation scores are 58 - 29 (poor), 87 - 59 (moderate), and 116 - 88 (favorable) (18). In Iran, the reliability coefficient of the AMQ has been confirmed at the Cronbach’s alpha of 0.78 (19). In the current research, the reliability coefficient of the questionnaire was confirmed at 0.75, suggesting adequate internal consistency.

3.3. Statistical Analysis

Data analysis was performed in SPSS version 16 using chi-square and t-test at the significance level of 95%.

4. Results

The age range of the participants was 19 - 25 years, and their mean age was 21.14 ± 1.68 years. Table 1 shows the background variables of the students in detail.

According to the obtained results, the mean score of achievement motivation was 77.64 ± 7.35, which indicated that the participants could obtain 66.93% of the maximum score. In addition, 89.5% and 10.5% of the students had moderate and favorable achievement motivation, respectively. Table 2 shows the correlation between the background variables and achievement motivation of the KUMS students. Accordingly, achievement motivation was significantly correlated with age (P = 0.031), male gender (P = 0.022), and maternal education level (P = 0.018).

5. Discussion

The present study aimed to evaluate the status of achievement motivation in the medical, dentistry, and pharmacology students of KUMS. According to the findings, the mean score of achievement motivation was 77.64 ± 7.35, which indicated that the participants could obtain 66.93% of the maximum score. In a similar study, Noohi et
Table 1. Distribution of Background Variables Among KUMS Students

| Variables                  | No. (%) |
|----------------------------|---------|
| Gender                     |         |
| Female                     | 73 (42.7) |
| Male                       | 98 (57.3) |
| Marital status             |         |
| Married                    | 41 (24)  |
| Single                     | 130 (76) |
| Faculty                    |         |
| Medicine                   | 135 (78.9) |
| Dentistry                  | 18 (10.5) |
| Pharmacology               | 18 (10.5) |
| Job                        |         |
| Just student               | 147 (86) |
| Employed                   | 24 (14)  |
| Living in a dormitory      |         |
| Yes                        | 63 (36.8) |
| No                         | 108 (63.2) |
| Father’s education level    |         |
| Under diploma              | 18 (10.5) |
| Diploma                    | 68 (39.8) |
| Academic                   | 85 (49.7) |
| Mother’s education level    |         |
| Under diploma              | 36 (21.1) |
| Diploma                    | 68 (39.8) |
| Academic                   | 67 (39.2) |

al. assessed the students of Baqiyatallah University of Medical Sciences (Iran), reporting the mean score of achievement motivation to be 85.2 (20). Since achievement motivation plays a key role in predicting the academic and occupational success of students, extensive research is required on the predictors of achievement motivation in the students of KUMS. Such studies should be conducted by the Education Development Center (EDC) to identify the main influential factors in achievement motivation and design psychological interventions aimed at promoting achievement motivation.

In the present study, a significant difference was observed in achievement motivation between the male and female students. Psychological and educational evidence attest to the direct impact of gender on motivation for progress throughout history. Furthermore, preliminary studies have been conducted in this regard based on theories of success motivation, clarifying the reasons behind the difference between adult male and female students in terms of educational and professional efforts. Before the 1970s, more male than female students were able to obtain a college degree and pursue advanced education and high-paid jobs. Today, numerous high school students experience gender gaps in math and science performance (21), and studies show that women are more motivated to progress compared to men (22). Our findings are inconsistent with these studies, and further research is recommended to examine gender differences in terms of achievement motivation.

According to the results of the present study, achievement motivation was significantly correlated with maternal education level, which is consistent with the previous findings confirming the key role of parental education in motivating children’s progress (23-25). On the other hand, our findings indicated no significant correlation between the achievement motivation and GPA of the students. This is inconsistent with the studies conducted by Noohi et al. on the students of Baqiyatallah University of Medical Sciences students (20) and Rasoli Khorsidi et al. on the nursing students of Babol University of Medical Sciences (Iran) (26). In another study, Gupta et al. reported that achievement motivation could predict the academic achievement of students (27).

The findings of Garshasbi et al. also demonstrated a correlation between achievement motivation and academic achievement (28). Consistent with the present study, the results obtained by Emmanuel et al. in the students in Ghana indicated that despite the positive correlation between achievement motivation and academic achievement, the correlation was not statistically significant (29). In line with our findings, the study performed by Ergene on 510 high school students in Turkey showed no significant difference between achievement motivation and academic achievement (30). Given the discrepancy between the aforementioned studies, further research is recommended in different cultures and student populations.

One of the limitations of our study was that data were collected in a self-report manner, which might have led to bias and affected the results. Moreover, our findings cannot be generalized to other student populations due to non-probability sampling.

5.1. Conclusions

According to the results, the achievement motivation of the majority of the KUMS students was moderate. Therefore, proper planning is required to improve the achievement motivation of these students.
Table 2. Correlations Between Background Variables and Achievement Motivation

| Variables                  | Achievement Motivation | PValue |
|----------------------------|------------------------|--------|
|                            | Moderate, No. (%) | Good, No. (%) |        |
| Age                        | 21.23 (1.66) | 20.33 (1.64) | 0.031 |
| GPA                        | 17.60 (1.36) | 17.32 (1.35) | 0.397 |
| Gender                     |            |            | 0.022 |
| Female                     | 70 (95.9)  | 3 (4.1)    |      |
| Male                       | 83 (84.7)  | 15 (15.3)  |      |
| Marital status             |            |            | 0.568 |
| Married                    | 38 (92.7)  | 3 (7.3)    |      |
| Single                     | 115 (88.5) | 15 (11.5)  |      |
| Faculty                    |            |            | 0.216 |
| Medicine                   | 120 (88.9) | 15 (11.1)  |      |
| Dentistry                  | 15 (83.3)  | 3 (16.7)   |      |
| Pharmacology               | 18 (100)   | 0 (0)      |      |
| Job                        |            |            | 0.722 |
| Just student               | 132 (89.8) | 15 (10.2)  |      |
| Employed                   | 21 (87.5)  | 3 (12.5)   |      |
| Living in a dormitory      |            |            | 0.301 |
| Yes                        | 54 (85.7)  | 9 (14.3)   |      |
| No                         | 99 (91.7)  | 9 (8.3)    |      |
| Father’s education level   |            |            | 0.266 |
| Under diploma              | 18 (100)   | 0 (0)      |      |
| Diploma                    | 59 (86.8)  | 9 (13.2)   |      |
| Academic                   | 76 (89.4)  | 9 (10.6)   |      |
| Mother’s education level   |            |            | 0.018 |
| Under diploma              | 36 (100)   | 0 (0)      |      |
| Diploma                    | 56 (82.4)  | 12 (17.6)  |      |
| Academic                   | 61 (91)    | 6 (9)      |      |

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Footnotes

Authors’ Contribution: MMA, CJ, and FJ designed the research and wrote the manuscript. SS collected data and wrote the manuscript. NK analyzed the data and edited the manuscript. HK, NH, and LMA contributed to this article. All authors read and approved the edited manuscript.

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