

## GENDER DIFFERENCES IN ATTRIBUTION TO SUCCESS AND FAILURE IN EXAMS: STUDENTS' PERSPECTIVE

Tehmina Munir

HITEC Institute of Medical Sciences/National University of Medical Sciences (NUM) Taxila Pakistan

### ABSTRACT

**Objective:** To study was to determine the gender difference in the various factors attributed to success and failure in exams.

**Study Design:** Cross sectional study.

**Place and Duration of Study:** The study was carried out at Army Medical College, from Sep 2018 to Oct 2018.

**Methodology:** The study was carried out on 400 undergraduate students of Army Medical college (3rd and 4th year MBBS). A pretested and self-administered questionnaire was prepared and given to the students after explaining the details of its contents and how to answer them. The responses to each item were added using a Likert scale.

**Results:** Out of 400 participants 324 completed the study. There were 200 (61.7%) male students and 124 (38.3%) female students with age range of 21-23 years and average age of 21 years. Personal interest and good teacher instruction, 148 (45.7%) and 147 (45.4%) respectively, were the attributions most frequently selected by the students for their success in exam. Whereas personal ability and good coping ability were stated to be the next frequently stated responses by the students, 140 (43.2%) and 141 (43.5%) respectively. In this study (80%) male students stated their personal ability to be the reason for their good results as compared to only 66% (females who stated their own ability to be the reason for their good performance ( $p$ -value of  $<0.05$ )).

**Conclusion:** There was a significant difference between males and female students mentioning ability, task difficulty and good preparation as factors attributable to their success and failure in exams.

**Keywords:** Coping ability, Medical educations, Medical students.

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### INTRODUCTION

Attribution by definition means ascribing something as the cause or effect of another thing. According to Heider theory of attribution, people give explanations for success and failures depending on what they perceive or think rather than what happened<sup>1</sup>. Weiner grouped various attributions into various causal dimensions viz locus of control, stability and controllability<sup>2</sup>. The locus may be internal because of a person's own behaviour or an external one, stability: whether it is stable or unstable and likely to change with effort, and controllability meaning whether it is within a person's control or not. Ability is described as an internal, stable and uncontrollable factor, effort is said to be an internal,

controllable and unstable, task difficulty as stable, external and uncontrollable whereas luck as an external, unstable and uncontrollable factor. Personal ability and effort on part of the learner, as well as task difficulty and luck are the four causes which influence a learner's attribution to success and failure<sup>3</sup>. Every student has a different perception about his learning ability which may help or hinder his learning<sup>4</sup>. Students who make internal attribution to their success and failure are likely to be motivated to achieve their goal as compared to those who do not believe in the importance of their own behaviour in their performance. If the students think that their failure is due to lack of their ability they are not likely to put in enough effort in future. The students incorrectly attribute their failure to inability rather than to lack of their own effort. If they attribute their failure to inadequate effort they are likely to put in their maximum effort to

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**Correspondence:** Dr Tehmina Munir, Pathology Department, HITEC-IMS, Taxila Pakistan

Email: [tehmunir\\_doc@yahoo.com](mailto:tehmunir_doc@yahoo.com)

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succeed<sup>5</sup>. It has been seen that making an internal attribution for any behaviour is likely to change peoples’ attitude as well as beliefs about themselves and a change in behaviour to a more desirable one. Hence what students believe about themselves and their success and failure in exams has an effect on their future behaviour as well<sup>6</sup>. Gender is said to be a factor which can affect a person’s motivation for achievement, however this difference has been seen to be decreasing in the field of science<sup>7</sup>.

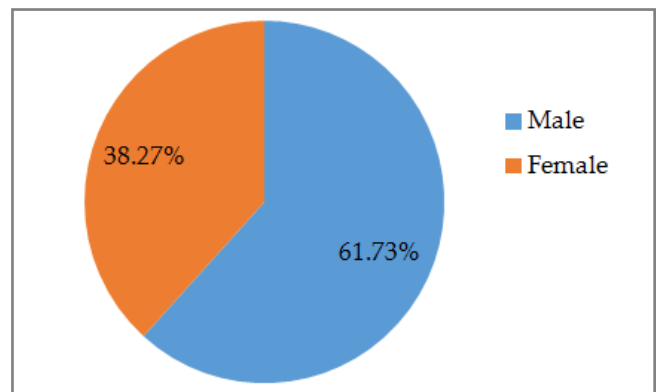
This study was aimed to know the gender difference in attribution factors to success and failure in exams and the underlying reason for various attribution factors. An attempt may then be made to motivate the students to modify their behaviour to develop a positive attitude and opinion about their abilities and improve performance for achieving their goal.

**METHODOLOGY**

This cross sectional study was done at Army Medical College, from September 2018 to October 2018 after the approval was given by the Ethical Review Committee of the Institution. The participants were selected by non-probability convenience sampling and informed written consent from all the participants was obtained before collecting the data. The study was conducted on 400 undergraduate male and female students of Army Medical College. The number of participants for the study was determined by using the sample size table (confidence interval 95% and 5% margin of error). All the students who passed their 1st and 2nd professional examination in either first or second attempt were included in the study. Students who did not pass the professional examination even on second attempt or who did not want to participate in the study were excluded. Out of 400, 324 students completed the questionnaire (response rate 81%). A self-administered questionnaire consisting of twenty questions was prepared out of which 9 questions were selected depending on our study requirement and were pilot tested on twenty students of 3rd year MBBS. The selected ques-

tions were given to students after explaining the details of its contents and how to answer them. Also ambiguity or problem was reported by the students in their written feedback, this questionnaire was used in the study. In the questionnaire the students were asked about their liking/disliking of the subject, the standard of examination, their beliefs about their own capability, the hard work that they put in to prepare for the exams, role of teachers’ instruction and the role of anxiety and stress they experienced during the exam. The responses to each item were added using a Likert scale.

The data were analysed using SPSS-23. Frequency and percentage were calculated for categorical variables, mean and standard deviation were calculated for numerical values. Pearson chi square test was done to determine any significant



**Figure: Percentage of female and male students in the study.**

difference between males and females giving various attributing factors for their performance in the exams. The *p*-value of <0.05 was taken as significant.

**RESULTS**

Four hundred students were enrolled in the study out of which only 324 agreed to participate in the study. Out of 324 participants, there were 200 (61.7%) male students and 124 (38.3%) female students with age range of 21-22 years and average age of 21 years (fig-1). The frequency of causal attributions to success for all the students (male as well as female) was determined. Table-I

shows the results of all the students' causal attributions for success in final examination.

Personal interest and good teacher instruction, 148 (45.7%) and 147 (45.4%) respectively, were the attributions most frequently selected by the students for their success in exam. Whereas

performance in exams. In the study (80%) male students stated their personal ability to be the reason for their good results as compared to only 66% (females who stated their own ability to be the reason for their good performance (*p*-value of <0.05). When the students were inquired about

**Table-I: Results of all the students' (male and female) causal attributions for success in final examination.**

	SA (%)	A (%)	U (%)	D (%)	SD (%)
Interest	61 (18.8)	148 (45.7)	62 (19.1)	33 (10.2)	20 (6.2)
Ability	38 (11.7)	140 (43.2)	91 (28.1)	36 (11.1)	19 (5.9)
Effort	41 (12.2)	133 (41)	49 (15.1)	74 (22.)	27 (8.3)
Luck	25 (7.7)	67 (20.7)	60 (18.5)	113 (34.)	59 (18.2)
Task	13 (4)	76 (23.5)	63 (19.4)	127 (39.2)	45 (13.9)
Strategy	23 (7.1)	108 (33.3)	84 (25.9)	70 (21.6)	39 (12)
Instruction	62 (19.)	147 (45.0)	42 (13)	56 (17.3)	17 (5.2)
Preparation	17 (5.2)	125 (38.)	82 (25.3)	73 (22.5)	27 (8.3)
Coping ability	69 (21.3)	141 (43.5)	42 (13)	47 (14.)	25 (7.7)

SA-strongly agree, A-agree, U-undecided, D-disagree, SD-strongly disagree

**Table-II (a): Gender based difference in various factors attributed to success in examination.**

	Interest (%)	Ability (%)	Effort (%)	Luck (%)	Task (%)	Strategy (%)	Instruction (%)	Preparation (%)
<b>SA</b>								
Male	36 (18)	31 (15.5)	27 (13.5)	18 (9)	13 (6.5)	17 (8.5)	44 (22)	16 (8)
Female	25 (20.2)	7 (5.6)	14 (11.3)	7 (5.6)	-	6 (4.8)	18 (14.5)	1 (0.8)
<b>A</b>								
Male	96 (48.2)	81 (40.5)	79 (39.5)	44 (22)	47 (23.5)	65 (32.5)	89 (44.5)	72 (36)
Female	52 (41.9)	59 (47.6)	54 (43.5)	23 (18.5)	29 (23.4)	43 (34.7)	58 (46.8)	53 (42.7)
<b>U</b>								
Male	31 (15.5)	55 (27.5)	27 (13.5)	28 (14)	44 (22)	45 (22.5)	24 (12)	45 (22.5)
Female	31 (25.0)	36 (29)	22 (17.7)	32 (25.8)	19 (15.3)	39 (31.5)	18 (14.5)	37 (29.8)
<b>D</b>								
Male	21 (10.5)	19 (9.5)	47 (23.5)	70 (35)	70 (35)	47 (23.5)	30 (15)	48 (24)
Female	12 (9.7)	17 (13.7)	27 (21.8)	43 (34.7)	57 (46)	23 (18.5)	26 (21)	25 (20.2)
<b>SD</b>								
Male	16 (8)	14 (7)	20 (10)	40 (20)	26 (13)	26 (13)	13 (6.5)	19 (9.5)
Female	4 (3.2)	5 (4)	7 (5.6)	19 (15.3)	19 (15.3)	13 (10.5)	4 (3.2)	8 (6.5)
<i>p</i> -value	0.12	0.046	0.50	0.08	0.01	0.27	0.21	0.02

SA-Strongly agree, A-Agree, U-Undecided, D- Disagree, SD-Strongly disagree

personal ability and good coping ability were stated to be the next frequently stated responses by the students, 140 (43.2) and 141 (43.5) respectively. The students disagreed that the examination was very easy 127 (39.2%) or they succeeded in the exam because of sheer luck 113 (34.9%).

Table-II (a and b) shows the various factors stated by male and female students for their

the task difficulty 60 (30%) male students agreed that the examination was easy and 29 (23%) female students said that the examination was easy, whereas 96 (48%) males 76 (61%) female students disagreed with the statement that the examination was easy. There was a significant difference in the response of the males and females about the perception of difficulty of task (*p*-value=0.01) as a reason for their success in

examination. When the students were asked about whether they were well prepared for the exams, 88 male students (44%) whereas 54 female students (43%) cited their good preparation for the exams as the reason for their performance however 67 (33.5%) males and 33 females (26.6%) disagreed with the statement that they were well prepared for the exam ( $p$ -value=0.02). However there was no significant difference in the response of the male and female students when they

**Table-II (b): Gender based difference in various factors attributed to success in examination.**

	Preparation	Coping
<b>SA</b>		
Male	16 (8%)	43 (21.5%)
Female	1 (0.8%)	26 (21%)
<b>A</b>		
Male	72 (36%)	90 (45%)
Female	53 (42.7%)	51 (41.1%)
<b>U</b>		
Male	45 (22.5%)	26 (13%)
Female	37 (29.8%)	16 (12.9%)
<b>DD</b>		
Male	48 (24%)	28 (14%)
Female	25 (20.2%)	19 (15.3%)
<b>SD</b>		
Male	19 (9.5%)	13 (6.5%)
Female	8 (6.5%)	12 (9.7%)
$p$ -value	0.02	0.85

SA-Strongly agree, A-Agree, U-Undecided, D- Disagree, SD-Strongly disagree

were inquired about the role of personal interest, luck, good strategy used for preparation of examination, teachers' instructions and their good coping ability as the reasons given for their success in the exams ( $p$ -value>0.05). One hundred thirty three (66%) male students and 77 (62%) female students said the good coping ability to overcome stress and anxiety during examination was the reason for their success whereas 41 male students (20.5%) and 31 (25%) female students disagreed that good coping ability played a major role in their success. There was a significant difference between males and females citing their good preparation for their success in exams ( $p$ -value 0.02), however there was no significant difference in the opinion of the male and female

students attributing the good coping ability as their success in examination ( $p$ -value >0.85) (table-IIb).

**DISCUSSION**

In our study a greater number of male students attributed their success to internal factors like ability as compared to females. In a study carried out by Afsane *et al* also, students attributed their success to their own ability as compared to luck as was the case in our study<sup>8</sup>. Borukovitch (2004)<sup>9</sup> also concluded that students attributed success to their own ability as compared to other factors. Fatemi and Asghari<sup>10</sup> however, presented the results of their study which stated that the students attributed success as well as failure to external factors like luck and task difficulty more as compared to their own ability. Their results also revealed significant differences between male and female in ability as an internal attribution and luck as an external contribution, males attributing their success to internal controllable factor (ability) as compared to females who cited luck as an important factor for their success in exams. In our study however the difference between male and female students mentioning luck as a contributing factor to their success was not significant. A study carried out by Sylvia<sup>11</sup> (1998) mentioned that males attributed their success to their strong ability whereas females attributed their success to their own effort. Pishgadam and Motakefi<sup>12</sup>, however, found that there was no significant difference in males and females mentioning different factors for their success in exams.

There was a significant difference between males and females mentioning their proficiency as well as easy task in the exams to be an important attribution factor with males in a majority to mention their well preparedness as well as easy examination questions to be an important attribution factor for their success. Adiba<sup>13</sup> also carried out a study which showed that highly proficient students attributed their success and failure to their own effort that they put in to prepare for the exams and the easy questions that they had to

answer in the exams. A study carried out by Yilmaz<sup>14</sup> in 2012, however, did not show any correlation between student's efficiency and their examination result. Our study did not show any significant difference in the strategy used by male and female students to study and prepare for the exams. A study carried out by Mahmud and Nur<sup>15</sup> in 2018 also did not show a significant difference in the strategy used by male and female students for their learning Oxford (1990)<sup>16</sup> and Wang (2009)<sup>17</sup> also found different learning strategies used by male and female students to learn and prepare for the exams. Hashim *et al*<sup>18</sup> 2014 also mentioned the use of strategy as an important factor for good performance of students. He also concluded that students attributed their failure to poor effort because of lack of interest in academic activities. Basturk<sup>4</sup> (2016) mentioned the role of inner ability as well as their own effort and task difficulty to be the important attribution factors for students performing good or bad in exams. Task difficulty with associated stress and depression were found to be major factors contributing to low performance and failure of students in an undergraduate medical college in India<sup>19</sup>.

There have been variable reports of gender difference in the causal attributions to success and failures. Some studies have, whereas others have not found a significant difference in attributions to success and failures among males and females<sup>20</sup>.

## CONCLUSION

There was a significant difference between male and female students mentioning ability, task difficulty and good preparation as factors attributable to their success and failure in exams with more males mentioning these factors to be reason for the performance. However, there was no significant difference between male and female students mentioning interest, effort, luck and strategy as major contributing factors to the performance in the examination.

## CONFLICT OF INTEREST

There was no conflict of interest to be declared in this study.

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