Study Factors Affecting Academic Achievement among Female Students at Ibn Sina National College

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ABSTRACT

Background: A good social environment is a key strategy to improve the level of education and achievement in medical college students. However, survey data from Jeddah, Saudi Arabia have indicated that a large number of medical students are affected negatively by their social status. This article comparatively explores the impact of four main factors: Social class/Background, Students' Personality, Health Status, and Psychological health on their achievement. Data were collected as part of a program of qualitative and quantitative research investigating the prevalence of bad environment effect on the psychological level of the students.

Objectives: To study the four main factors Social class/Background, Students' Personality, Health Status, and Psychological health affecting academic achievement among Female Students at Ibn Sina National College.

Methods: The study was conducted among 1315 female students attending colleges of Ibn Sina-Jeddah-Saudi Arabia between 1st of April – 31th of May 2016. An open-ended questionnaire was developed to cover the objectives.

Conclusion: After assessment of the factors and variables across the targeted sites about the academic achievement were often conclude that overall achievement were very good regardless the factor.

Keywords: social factors; increase academic achievement

INTRODUCTION

Students are the most essential asset for any educational institute; therefore many empirical studies are carried out to explore factors affecting college students' academic achievement and performance, yet the challenge remains that measuring of academic performance of students can be influenced by a variety of factors such as *Social class/Background;* A college education was seen as a means of escape and a pathway toward social mobility in colonial times and the early 19th century for low-SES (Socio Economic Status) students [1], a sentiment that became ingrained in the American dream [2].Moreover, Parent educational status is considered one of the most important aspects of Socio Economic Status (SES) because it is typically established at an early age and tends to remain the same over time [3].

Second factor is *Students' Personality Traits and Academic Performance*; Educators, researchers, and psychologists have been constantly searching for parsimonious set of variables that predicts patterns of students' behaviors and their relationship to academic achievement [4]. A meta-analysis of personality-academic performance relationships, based on the Five-Factor Model (FFM), with cumulative sample sizes ranging to over 70,000 revealed that academic performance was found to correlate significantly with Agreeableness, conscientiousness, and openness. Academic level (primary, secondary, or tertiary), average age of participant, and the interaction between academic level and age significantly moderated correlations with academic performance [5]. There is a debate as to which personality traits are typical of students in medical studies as compared to students in other academic majors [6]. and which specific personality traits predict medical student performance in the pre-clinical years [7].

Third factor *Health and Academic Achievement*; Health status can be affected by many factors such as Nutrition [8-9]. Disabilities [10], and Chronic Illness [11].

Fourth factors *Psychological health;* Medical students experience depression, burnout, and

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mental illness at a higher rate than the general population, with mental health deteriorating over the course of medical training[12]. Medical students have a higher risk of suicidal ideation and suicide[13] higher rates of burnout and a lower quality of life than age-matched populations[14]. Medical students are less likely than the general population to receive appropriate treatment despite seemingly better access to care [15]. The medical school curriculum of the College of Medicine, King Saud University, Riyadh, Saudi Arabia, has been developed to graduate competent and professional physicians to serve their community efficiently. Medical education is perceived as being stressful, as it is characterized by many psychological changes in students. Studies have shown that medical students experience a high level of stress during their undergraduate course [16-17]. High rates of psychological morbidity among medical students, such as anxiety and depressive symptoms, have been reported in several studies from different western countries [16-17] as well as from other parts of the world.

MATERIALS AND METHODS

Methodology

Study subjects and setting:

Data samples are taken from different female medical departments in the college of Ibn Sina-Jeddah- Saudi Arabia.

Study design:

A cross-sectional study was chosen to conduct this study.

Socio-demographic variables:

1. Distribution of the female Student (medical – pharmacy – dentistry – nursing)
2. academic achievement (excellent - very good – Good – Fair)
3. Past history of high school grade (excellent - very good – Good – Fair)
4. Education of the father (Non educated – Basic – University - Higher Education)
5. Education of the mother (Non educated – Basic – University - Higher Education)
6. Family income (<4000 – 4000 to 10,000 - >10,000)
7. Family size (<3 – 3 to 5 - >5)
8. Residence during academic year (with family - university accommodation - separate private flat - shard private flat).
9. Way of study (separated – with friends)
10. Average time of study per day (1 hour – 2 hours – 3 hours – 4 hours)
11. Spending spare time (play sport - watch TV - spend time with friends - use computer & internet)
12. History of chronic disease (chronic disability – bronchial asthma – hypertension – Diabetes – hypo or hyperthyroidism – arrhythmia – blood disease - hearing defect – vision defect)

Data collection:

Data collection took place between 1st of April – 31th of May 2016. A structured questionnaire was developed to cover the research objectives. Students were approached and given a brief description of the study. If they agreed to participate, the student administered the questionnaire verbally. Almost 10 minutes were needed to complete the questionnaire for 1315 participants.

RESULTS

As shown in table (1), Socio-demographic Characters of 1315 participant were obtained from different departments "female" in Ibn Sina national colleges, 519 (39.47%) were medical students, 225 (17.11%) were pharmacy students, 405 (30.80%) were Dental students, and 166 (12.62%) were nursing students .Overall 480 (36.50%) of the participants had excellent achievement and 638 (48.52%) had very good achievement. Most of the participants 652 (49.58%) has university educated father and 618 (47%) has the same for mother. Moreover, most of the percipients 782 (12.47%) has more than 10,000 SR income while only 116 (8.82%) has less than 4,000 SR. Results show 933 (70.95%) their residency during academic year is with family and 1108 (84.26%) are non-smokers. Finally 697 (53%) has no chronic disease

Regarding table (2), Study strategy among the participants; 1028 (87.17%) were studying alone, 532 (40.46%) of them were studying for 2 hours.

In table (3), distribution of studied females according to academic year's achievement and level show that regardless the program attended; higher level of education had lower achievement in relation to the lower level of education (first and second year) who most of them had excellent achievement.

In Table (4), Distribution of studied female according to academic achievement and college; overall, most of the students in the mentioned programs had a very good level of achievement. Represented as female medical student 242 (46.6%), female pharmacy student 109 (48.4%), female dentistry student 195 (48.1%), and female nursing student 92 (55.4%).

As regard table (5), distribution of studied females according to academic achievement and grade in High school; 1083 (82.35%) of total

participants has excellent level of achievement in the high school and only 450 (41.5%) of theme still have excellent level of achievement in the college while 528 (48.4%) regress to very good level of achievement.

In table (6), distribution of studied females according to academic achievement and educational level of the father; most of the participants had a university educated father, meanwhile among them the most were very good level of achievement.

Table (7)shows the distribution of studied females according to academic achievement and education of the mother; Most of the participants had a university educated mother, meanwhile among them the most were very good level of achievement.

Figure (1)shows the Distribution of studied female according to academic achievement and family income; regardless the income, most of the participants has very good level of achievement.

Figure (2) illustrate the distribution of studied female according to academic achievement and family size; regardless size, most of the participants has very good level of achievement.

Figure (3), distribution of studied female according to academic achievement and residence during academic year; regardless the residence during academic year, most of the participants has very good level of achievement.

Figure (4) illustrate the distribution of studied female according to academic achievement and way of studying; regardless the way, most of the participants has very good level of achievement.

Figure (5) shows the distribution of studied female according to academic achievement and average time of study per day; regardless the duration of study, most of the participants have very good level of achievement except for those studies 4 hour most of them has excellent level of achievement.

Figure (6) shows the distribution of studied female according to academic achievement and spending spare of time; regardless the way, most of the participants have very good level of achievement.

Table (8) shows the distribution of studied female according to academic achievement and smoking cigarette; most of the participants are non-smokers and has very good level of achievement followed by excellent level of achievement.

DISCUSSION

The objective of this study was to quantify the relationship between the different factors that are considered responsible of affecting the students' achievement along with providing base for further research.

Results of the present study suggest that degree of achievement worsens after being university students. The majority of studies suggest that decrease the level of achievement and performance of medical education is due to stress in focus on the documentation of stress and information on the correlates of stress [18]. In many medical schools, the environment itself is an all prevailing pressure situation, providing an authoritarian and rigid system, one that encourages competition rather than cooperation between learners [19]. It is not just the undergraduate study period which brings stress but it may continue during the internship, postgraduate study period, and later into physician's practical life [20-21]. The stress may also reach burnout levels [22].

Significant studies have suggested that socioeconomic status is one of the best predictors of student achievement [23] arent educational status is considered one of the most stable aspects of Socio Economic Status (SES) because it is typically established at an early age and tends to remain the same over time [24]. It has been well documented that family plays a meaningful role in a students' academic performance and development Mothers' levels of education and family incomes influence adolescent educational outcome expectancy beliefs [25]. Our results did not go with this suggestion as 900 (68.44%) of the participants has university educated father or higher education level and 415 (31.56%) has lower education level but still education achievement remain very good for all categories and the same regard the mother education as 782 (59.47%) has university educated mother or higher education level while 533 (40.53%) has lower education level. At the same time our result did not find any significant relation between the family income, size, and residency during academic year and the academic achievement as all categories has 47% to 56% very good level of achievement, 10% to 17.5% good level, 0.9% to 4.2% fair level, and 30% to 42% excellent level.

CONCLUSION

After assessment of the factors and variables across the targeted sites about the academic achievement were often conclude that

overall achievement were very good regardless the factor.

ACKNOWLEDGMENT

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TABLES & GRAPHS:

Socio-demographic Characters		Number	Percentage %
Distribution Of The Female Student	Medicine	519	39.47%
	Pharmacy	225	17.11%
	Dentistry	405	30.80%
	Nursing	166	12.62%
Level Of Education	1st year	54	4.11%
	2nd year	317	17.11%
	3rd year	405	30.80%
	4th year	211	16.05%
	5th year	209	15.89%
	6th year	119	9.05%
Academic Achievement (GPA)	Excellent	480	36.50%
	Very good	638	48.52%
	Good	172	13.08%
	fair	25	1.90%
Education Of The Father	Non educated	173	13.16%
	Basic study	242	18.40%
	University	652	49.58%
	Higher Education	248	18.86%
Education Of The Mother	Non educated	177	13.46%
	Basic study	356	27.07%
	University	618	47.00%
	Higher Education	164	12.47%
Family Income	<4,000	116	8.82%
	4,000 to 10,000	417	31.71%
	>10,000	782	12.47%
Family Size	<3	215	16.35%
	3 to 5	561	42.66%
	>5	539	40.99%
Residence During Academic Year	with family	933	70.95%
	university accommodation	165	12.55%
	separate private flat	128	9.73%
	shared private flat	89	6.77%
History Of Smoking	Yes	207	15.74%
	No	1108	84.26%
History Of Chronic Disease	chronic disability	4	0.30%
	bronchial asthma	151	11.48%
	hypertension	15	1.14%
	Arrhythmia	2	0.15%
	Diabetes	80	6.08%
	Thyroid disease	5	0.38%
	blood disease	30	2.28%
	hearing defect	4	0.30%
	vision defect	327	24.87%
	Non - Diseased	697	53.00%
Table (1): Distribution of Socio-demographic Characters			

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		Number	Percentage %
Way Of Study	Separated	1028	87.17%
	with friends	287	21.83%
Average Time Of Study Per Day	1 hours	271	20.61%
	2 hours	532	40.46%
	3 hours	375	28.52%
	4 hours	137	10.42%
Spending Spare Time	play sport	336	25.55%
	watch TV	333	25.32%
	spend time with friends	297	22.59%
	use computer & internet	349	26.54%

Table (2): Study strategy

Academic Achievement	Level					
	First	**Second**	**Third**	**Fourth**	**Fifth**	**Sixth**
Excellent	26	156	137	51	75	35
	48.1%	49.2%	33.8%	24.2%	35.9%	29.4%
very good	20	126	211	116	97	68
	37.0%	39.7%	52.1%	55.0%	46.4%	57.1%
Good	7	34	48	40	28	15
	13.0%	10.7%	11.9%	19.0%	13.4%	12.6%
Fair	1	1	9	4	9	1
	1.9%	0.3%	2.2%	1.9%	4.3%	0.8%
Total	54	317	405	211	209	119

Table (3): distribution of studied female according to academic years achievement and level

Academic Achievement	College			
	Nursing	**Dentistry**	**Pharmacy**	**Medicine**
Excellent	38	159	86	197
	22.9%	39.3%	38.2%	38.0%
Very Good	92	195	109	242
	55.4%	48.1%	48.4%	46.6%
Good	34	44	27	67
	20.5%	10.9%	12.0%	12.9%
Fair	2	7	3	13
	1.2%	1.7%	1.3%	2.5%
Total	166	405	225	519

Table (4): Distribution of studied female according to academic achievement and college

Academic Achievement	Grade In High School			
	Excellent	**Very Good**	**Good**	**Fair**
Excellent	450	26	4	0
	41.6%	14.1%	10.8%	0.0%
Very Good	528	91	15	4
	48.8%	49.5%	40.5%	36.4%
Good	92	60	16	4
	8.5%	32.6%	43.2%	36.4%
Fair	13	7	2	3
	1.2%	3.8%	5.4%	27.3%
Total	1083	184	37	11

Table (5): distribution of studied female according to academic achievement and grade in High school

Academic Achievement	Educational Level Of Father			
	Non Educated	**Basic**	**University**	**Higher Education**
Excellent	55	71	261	93
	31.79%	29.34%	40.03%	37.50%
Very Good	76	118	318	126
	43.93%	48.76%	48.77%	50.81%
Good	37	43	64	28
	21.39%	17.77%	9.82%	11.29%
Fair	5	10	9	1
	2.89%	4.13%	1.38%	0.40%
Total	173	242	652	248

Table (6): distribution of studied female according to academic achievement and educational level of the father

Academic Achievement	Education Of The Mother			
	Non Educated	**Basic**	**University**	**Higher Education**
Excellent	64	107	250	59
	36.16%	30.06%	40.45%	35.98%
very good	81	174	295	88
	45.76%	48.88%	47.73%	53.66%
Good	25	65	65	17
	14.12%	18.26%	10.52%	10.37%
Fair	7	10	8	0
	3.95%	2.81%	1.29%	0.00%
Total	177	356	618	164

Table (7): distribution of studied female according to academic achievement and education of the mother

	Smoking Cigarette	
	Yes	**no**
Excellent	67	413
	32.4%	37.3%
very good	104	534
	50.2%	48.2%
Good	30	142
	14.5%	12.8%
Fair	6	19
	2.9%	1.7%
Total	207	1108

Table (8): distribution of studied female according to academic achievement and smoking cigarette

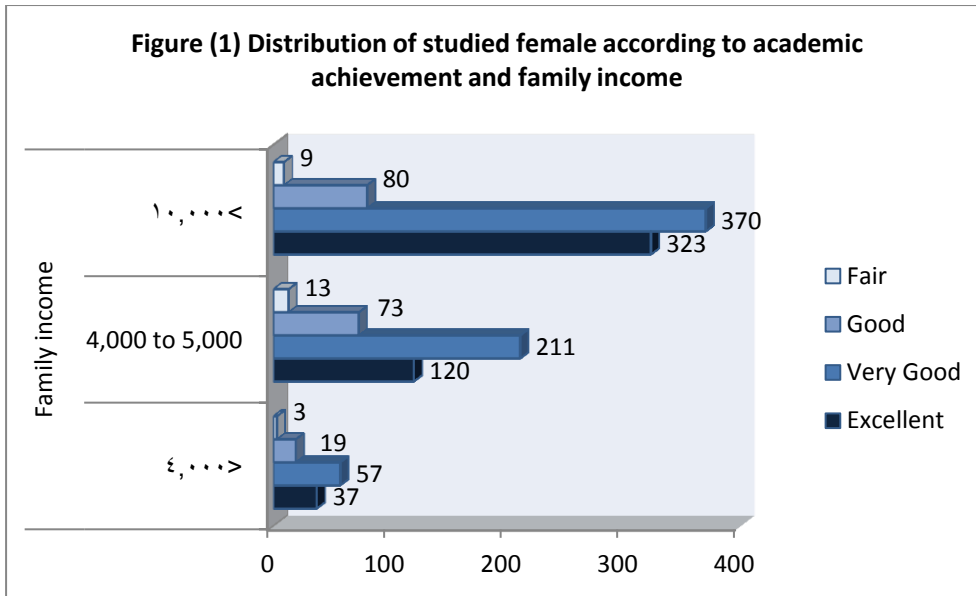**Figure (1) Distribution of studied female according to academic achievement and family income**

Figure 1 contains both Arabic &Indian numbers

Figure (2) distribution of studied female according to academic achievement and family size

Figure (3) Distribution of studied female according to academic achievement and residence during academic year

Figure (4) Distribution of studied female according to academic achievement and way of study

Figure (5) Distribution of studied female according to academic achievement and average time of study per day

Figure (6) Distribution of studied female according to academic achievement and spending spare of time