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The Potential Sources (Individual Accomplishment and Environment Factors) and its Influence on Causes of Students' Failure in Al Kindy College of Medicine 2012

ARTICLE INFORMATION

ABSTRACT

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Article history:

Received; September, 5, 2103.
Revised form; December, 18, 2103.
Accepted; December, 25, 2103.

Keywords:

Individual accomplishment
Environment factor
Students' Failure
College of Medicine

Background: Failure is the state or condition of not meeting a desirable or intended objective, and may be viewed as the opposite of success; students always have a question "Why did I get this grade. On the contrary success leads towards new sources of earning, in fact there are a lot of interacting factors play such extrinsic and extrinsic to reach success.

Objectives: To explore internal and external factors causing students failure in medical college and to reconnoiter factors improve academic performance.

Methods: A cross-sectional study, conducted in Al Kindy College of Medicine, for the period from November 8th 2012 to May 1st 2013. Formal ethical considerations were obtained about participation and methodology. A sample of 152 students were included and classified according to their year in the college, a questionnaires about students opinion, include a lot of factors in the all fields of educational process and socio-demographic linked with final outcome of the students.

Results: success was more in females, fifth year (83%), student wellness (78%), practical teaching method (75%), regularity in attendees (80%), all lecture attendees (85%), 3-5 family number (78%), 6-10 studying hours (82%), and 25 reading hours weekly (100%), also result of student opinion about crowded weekly schedule (80%), daily quizzes influence (76%), comprehensive material (85%), long lecture duration (74%), headache as cause of failure (23%), consult doctors if there is health problem (88%), and internet uses (72%). These result come in consistent with international studies and researches.

Conclusions: applying new techniques in medical education good health monitoring can improve students' academic outcome.

Introduction:

Failure is the state or condition of not meeting a desirable or intended objective, and may be viewed as the opposite of success⁽¹⁾. Students always have a question "Why did I get this grade"⁽²⁾. In fact success leads towards upgrade which enhances the general growth of a country⁽³⁾.

Students' performance remains at top priority for educators who seeks to identify structural deficiencies in the education system⁽⁴⁾, also educators, trainers, and researchers have long been interested in exploring variables contributing effectively for quality of performance of learners⁽⁵⁾. Polysemy of the role of the teacher as well as of the student, have been expressed in many ways throughout education systems, attributed different dimensions depending on economic and societal priorities⁽⁶⁾.

A student fails or gets fewer marks in exam because he does not know all the factors, or does not pay attention to all the factors which make a student get high grades in exam⁽⁷⁾. Some reasons for college student failure may include;

- No vision, thus, they may take programs of study without a clear career goal or objective.

- Without passion, study becomes a chore and not a method of achieving clearly defined goals.
- Lack of personal, work, school and family balance.

Whatever is going on in a student's personal life, will inevitably affect what's going on in school. Whatever is happening in school will affect what's going on in their personal life. A student needs time to be in class, and appropriate time for study. However, there must be time for family, friends, social activities, and time to just be alone. The key is keeping proper balance⁽⁸⁾.

The present study was conducted to explore internal and external failure causing factors, affecting students in medical college, as well to reconnoiter factors improve academic performance.

Methods:

A cross-sectional study, conducted in Al Kindy College of Medicine, for the period from November 8th 2012 to May 1st 2013. All participants accept research methodology and apply a written statement about their participation. Research methodology and practical issues were revised and accepted by the scientific committee of Community

Medicine Department, and approved by the scientific committee of Al Kindy College of Medicine.

A sample of 152 students were included, the students were already classified according to their year in the college (second, third, fourth and fifth year), consequently, a questionnaires about students opinion, trying to find out factors affecting academic outcome and causes of failure, expected outcome attendee's good week schedule other factors can decreases failure, data collection researcher ask participants' each session last half an hour, problem of incomppliance motivate students to participated, questionnaires consist of 18 parts, 152 students asked and researchers then analysis according to research question and outcome classified to success and failed and the second trail.

Statistical analysis: Descriptive statistic, by using graph and figures. Analytical statistic, by using mini tab software was used for analysis. The significance of differences between the chi test the P-values less than 0.05 were considered significant for all data presented in the results. All definitions and explanation about terms found in the attached questionnaire.

Results:

Table 1: Students variables and outcomes.

Variable	Students Outcomes				P value	
	Total	Passed	2 nd Set	Failed		
	No.	No. (%)	No. (%)	No. (%)		
Gender	Male	63	42 (67)	20 (32)	1 (2)	0.102
	Female	89	70 (79)	18 (20)	1 (1)	
Stage	Second	35	20 (57)	13 (37)	2 (6)	0.175
	Third	36	28 (78)	8 (22)	0 (0)	
	Fourth	41	31 (76)	10 (24)	0 (0)	
	Fifth	40	33 (83)	7 (17)	0 (0)	
Getting into medical school	Your own desire	86	67 (78)	18 (21)	1 (1)	0.005
	Parents desire	31	20 (65)	11 (35)	1 (3)	
	High average	46	30 (66)	14 (31)	1 (2)	
	Other	7	6 (85)	1 (15)	0 (0)	
Preferred method of teaching	Practical	136	102 (75)	33 (24)	1 (0.7)	0.036
	Theory	16	11 (69)	4 (25)	1 (6)	
Daily quizzes influence	Positive	74	56 (76)	18 (24)	0 (0)	0.108
	Negative	77	55 (71)	20 (26)	2 (3)	

Table 1: Students variables and outcomes (Continued).

Variable	Students Outcomes				P value	
	Total	Passed	2 nd Set	Failed		
	No.	No. (%)	No. (%)	No. (%)		
Your opinion of weekly schedule	Too crowded	67	53 (80)	13 (19)	1 (1)	0.05
	crowded	54	39 (72)	14 (26)	1 (2)	
	average	18	13 (72)	5 (28)	0 (0)	
	I don't care	13	8 (62)	5 (38)	0 (0)	
Comprehensive materials	Excellent	5	2 (40)	2 (40)	1 (20)	0.165
	Good	34	29 (85)	5 (15)	0 (0)	
	Okay	67	45 (67)	21 (31)	1 (1)	
	Not enough	46	36 (78)	10 (22)	0 (0)	
Regularity of attending lectures	Regular	98	82 (84)	16 (16)	0 (0)	0.005
	Irregular	54	31 (57)	21 (39)	2 (4)	
Daily average of lectures attending	0-25%	0	0 (0)	0 (0)	0 (0)	0.005
	26-50%	14	6 (43)	8 (57)	0 (0)	
	51-75%	37	20 (54)	15 (41)	2 (5)	
	76-100%	101	86 (85)	15 (15)	0 (0)	
The reason of lecture attending	Registration	53	40 (75)	12 (23)	1 (2)	0.242
	The quiz	97	69 (71)	28 (29)	0 (0)	
	Benefit	50	41 (82)	8 (16)	1 (2)	
The reason you don't get the lectures	Long	71	55 (74)	16 (23)	0 (0)	0.877
	Hard	30	22 (73)	8 (27)	0 (0)	
	Lecturer's way	87	64 (77)	21 (24)	2 (2)	
	Hard / poor communication with the lecture	35	26 (74)	9 (36)	0 (0)	
	Lecturer's exceeding of the lecture's time	41	28 (68)	13 (32)	0 (0)	

Table 1: Students variables and outcomes (Continued).

Variable	Students Outcomes				P value	
	Total	Passed	2 nd Set	Failed		
	No.	No. (%)	No. (%)	No. (%)		
Number of family members	3-5	76	58 (80)	16 (21)	2 (3)	0.286
	6-10	75	53 (72)	22 (29)	0 (0)	
	11-15	1	1 (100)	0 (0)	0 (0)	
	16-20	0 (0)	0 (0)	0 (0)	0 (0)	
Father's academic level	College	133	97 (73)	34 (26)	2 (1)	0.642
	Less	19	15 (79)	4 (21)	0 (0)	
Mother's academic level	College	116	87 (75)	27 (23)	2 (2)	0.068
	Less	36	25 (69)	11 (31)	0 (0)	
Daily average of lectures attending	Headache	26	19 (73)	6 (23)	1 (4)	0.001
	Blood pressure problems	5	5 (100)	0 (0)	0 (0)	
	Vision problems	35	28 (80)	7 (20)	0 (0)	
	Asthma	5	3 (60)	2 (40)	0 (0)	
	Others	29	24 (83)	5 (17)	0 (0)	
	None	67	46 (69)	20 (30)	1 (1)	
Aggravating factors to the health problem	Exams	59	49 (83)	10 (17)	0 (0)	0.077
	Daily Studying	24	20 (83)	3 (13)	1 (4)	
	Other	29	18 (62)	10 (35)	1 (3)	
How to deal with your health problem	Keep studying	23	18 (78)	5 (22)	0 (0)	0.510
	Rest	45	29 (64)	15 (33)	1 (2)	
	Sleep	51	37 (73)	13 (25)	1 (2)	
	Counseling the doctor	8	7 (88)	1 (12)	0 (0)	

Table 1: Students variables and outcomes (Continued).

Variable	Students Outcomes				P value	
	Total	Passed	2 nd Set	Failed		
	No.	No. (%)	No. (%)	No. (%)		
Daily average of studying	0-5 hours	141	103 (73)	36 (26)	2 (1)	0.571
	6-10 hours	11	9 (82)	2 (18)	0 (0)	
Weekend average of studying	0-5 hours	39	23 (59)	16 (41)	0 (0)	0.03
	6-10 hours	77	59 (77)	16 (21)	2 (2)	
	11-15 hours	25	21 (84)	4 (16)	0 (0)	
	16-20 hours	2	2 (100)	0 (0)	0 (0)	
	21-25 hours	4	4 (100)	0 (0)	0 (0)	
Daily lost hours	26-30 hours	2	2 (100)	0 (0)	0 (0)	0.645
	Internet	87	63 (72)	23 (27)	1 (1)	
	T.V.	39	25 (64)	14 (36)	0 (0)	
	Sleeping	125	91 (73)	33 (26)	1 (1)	
Daily average time of going to and coming back from college	Other	24	16 (67)	8 (33)	0 (0)	0.484
	Half an hour	0	0 (0)	0 (0)	0 (0)	
	1 hour	47	36 (77)	9 (19)	2 (4)	
	2 hours	46	34 (74)	12 (26)	0 (0)	
	3 hours	40	26 (65)	14 (35)	0 (0)	
	>3 hours	15	13 (87)	2 (13)	0 (0)	

Discussion:

At-risk students can be identified and corrective action taken by to help them to achieve higher degree so good analysis of these results pointed to the factors directly affecting the student's performance.

Gender difference and academic performance, the study found that female has success rate 79% higher than male which shows higher failure rate 2% but ($p=0.102$), and this result in consistent with a national study Effect of Gender on Performance Students at the University of Jordan ⁽⁹⁾. Usually female students study more and in our country there is minute outdoor activity on contrary male students.

Academic year, the study found the higher success rate was in the fifth stage 83% ($p= 0.175$) this may be due increase and accumulation in experience and allover improve in the academic tasks ⁽⁹⁾.

Students enrollment in colleges in Iraq is centrally issue it seem clearly that a second factor play may play a role in this mater we omitted it. With significant result and agreement with a lot of studies it's found that the highest percentage of success in the first round was among people with intrinsic will (78-85%) ($p=0.005$). And this is supported by Human and Lens⁽¹⁰⁾.

Modern Teaching method with concentration on practical issue were clearly illustrated with $p=0.036$, it play a direct effect on student success, as 89% of students prefer the active practical learning and only 11% of students prefer the theoretical passive learning this is consistent with the national study, Effects of Active Learning Variants on Student Performance and Learning Perceptions done by Abdu- Rizal Mohamed⁽¹¹⁾.

The failure of quizzes to improve exam performance is puzzling, this study found that there is neither relation nor significance ($p=0.108$) between the daily quizzes and the students success, and this consistent with previous research, Hovel et al, Sparer, and Wilder et al, and self-reported studying Merchant, all their study agreed that the quizzes did not have any effect on exam performance. In addition, quiz content was not a factor in assessment. Regardless of whether quizzes covered new and old material, also it's consistent with some previous research (Beaulieu & Utecht, Lumsden). Also researches of several studies have found that quizzes (or a greater number of exams) had no effect on exam performance (Azorlosa & Renner, Beaulieu & Frost, Beaulieu & Utecht, Conard, Spenser & Semb, Gurung, Lumsden, Wilder^(12,13)).

Weekly schedule it's students opinion state is too crowded 80% with highest failure rate ($p=0.05$), the well-constructed scientific base schedule the better outcome, this consistent with the study conducted by Washington School Research Center which state simply having one type of schedule rather than another would lead to higher aggregate student achievement⁽¹⁴⁾.

"Teaching materials" is a generic term used to describe the resources teachers use to deliver instruction and can support student learning and increase student success⁽¹⁵⁾. It's found that there is 85% of good student's response with least failure rate. But this relation is not statistically significant as (P value= 0.165). More research needed in this very important issue.

Some student behaviors ensuring failure?, this study focus on daily attendance and its regularity, those two factors have significant effect on the academic outcome as (P value= 0.005) for both of them. This in consistent with a national study researches done by William J which state that: certain student behaviors ensure failure (not attending class, not taking notes, not reading assignments)⁽¹⁶⁾. It seems that attending can improve ability of students of understand the lecturer, to make knowledge meaningful, also the importance of the ability of lecturers to analyze and synthesize complex material, make it simpler for students and explain it clearly. Students place high value on clarity and structure⁽¹⁷⁾.

Teachers learning style and techniques and its effect on students understanding and consequently improve outcome. Students gave the priority to teaching method, length of the lecture, exceeded a professor on time for lecture, difficulty of communicating with Professor and reason is the difficulty of the given material. This in consistent with a (Best Teachers Summer Institute, June

19-21, 2013 what's Wrong (and Right) with Lectures? By Ken Bain) and the "Dr. Fox" studies⁽¹⁸⁾.

Socio-demographic character of students; number of family members, the study shows that students whose family consists of 3-5 members have the highest success rate 76% while students whose family of 6-10 members have the highest failure rate 29%, this in consistent with a national study (Factors Affecting Students' Performance - MPRA Paper No. 13621, 2009), But this relation is not statistically significant as ($p=0.286$)⁽¹⁹⁾. A second socio-demographic factor is academic level of parent's college level for both more potential for failure but with $p=0.6$ and 0.06 to mother side, this result not agrees with a national study (family environment, and student characteristics on academic achievement.)⁽²⁰⁾, and another study (Factors Affecting Students' Performance - MPRA Paper No. 13621, 2009) shows: ^(21,22). In our environment mother play very important role in her child out come more than the father this may explain this phenomena.

Student's health problems and adverse academic outcome, headache is the first problem with 4% failure then asthma only 60% success ($p=0.001$), this in consistent with a national study (Prevalence of asthma and head ache in college student population)^(23,24). Defiantly sick student have poor outcome for a lot of causes, raising issue how to improve continuous health condition of students, student prefer to go the doctors to treat their health problem in 88% and secondarily took rest and sleep ($p=0.077, 0.510$), here there is a need for counseling and preventive mental health services should be an integral part of the routine clinical facilities caring for medical students⁽²⁵⁾. Raise the important of taking break to reload student energy, this in consistent with a national study (The Importance of Taking Breaks), but this relation is not statistically significant as⁽²⁶⁾.

Long time from and to college, traffic jams and the poor environment have the highest failure rate 35%, this in consistent with a national study (The Effect School Location on Students Performance in Nigerian Integrated Science-Academic journal article from Education⁽²⁷⁾). Same reason above, performance needs a good overall condition.

Average studying hours, it seems study between 5-10 h have the least failure on contrary to the 5 h studying, international result agreed this results⁽²⁷⁾. But this relation is not statistically significant as (p value= 0.571), in fact, in colleges of medicine, students may reach more than 12h reading because of the overcrowded materials in the curriculum. Its same goes with weekly studying time it's clearly found that increase weekly reading time have a direct effect on outcome, and this relation is statistically significant as (p value= 0.03)⁽²⁸⁾.

Losing hour's effect, if none studying use for internet, has the major role in increase failure rates. This in consistent with a national study, but this relation is not statistically significant as (p value= 0.645)⁽²⁹⁾. Here, highlight the important of taking lesson online so college can engage through the internet life of students.

Conclusions:

The study concludes the following; success rate is an accumulative process, need a lot of integration within the six year study coerces. Teaching method, well designed weekly schedule, practical active learning, more teaching remedy,

accessories, strict chronology, improve assessment techniques, student general health monitoring, wise use of internet with embedded of teaching material in the multimedia, social communication sites, jump from the static process of learning to the virtual media, and other socio-demographic factors all these can help to improve students' performance.

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