Identification of Factors of Low Grades and Academic Failure of Medical Students

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ABSTRACT

Background: Students are human capital and future of all countries, several factors affect students' academic status leading to academic burnout and possibly academic failure, academic failure can delay finding a job and lead to frustration, loss of morale, and ultimately result in a large cost. Several factors may lead to academic failure, such as age, gender, scientific background, motivation and interest in the field, marital status, occupation status, place of residence, parental employment and education level, financial ability and others. Academic failure of students is not a personal problem, but rather a social issue; therefore, fundamental steps must be taken toward addressing the issue.

Aim: The aim of study to Determine academic failure and related factors among medical students of Tikrit university college of medicine.

Subject and methods: The current study is cross section study type was carried out in medical students from 21th of November 2022 to the 5th of March 2023.The study design was by convenient sampling, from medical students .The Exclusion criteria of participants was all students with a good academic level, while all other students were included in the study.The data was collected using Google form Questinaire.

Results: The total samples of study was (202), the bad time management is the most factors affecting on students with low grades (93%), work while studying (49%), family responsibility (25%), Psychological problems (10.4%), pathological problems (6%), Low economic state (5.4%). the students with second trial had highest bad time management (35.4%), work while studying (25.8%). The poor teaching quality is the highest percentage (50%) of evaluation, moderate (32%), good (14%), (4%) excellent. the students satisfaction with effective teaching methods is moderate (44%), poor (36%), good (17%) and excellent (3%).

Conclusions: The bad time management is the most factors affecting on students with low grades.

KEYWORDS: Students, Academic status, Academic Failure.

INTRODUCTION

Students are human capital and future of all countries, several factors affect students' academic status leading to academic burnout and possibly academic failure, academic failure can delay finding a job and lead to frustration, loss of morale, and ultimately result in a large cost [1].

According to the definition of the United Nations' Educational, Scientific and Cultural Organization , academic failure means repetition of grades, early dropout, and lower educational quality, studies have provided different definitions of academic failure, but all have mentioned educational failure, according to these studies, various criteria such as lower scores, unsatisfactory grade point averages, repeated courses or grades, long education periods, academic probation, being expelled, leaving their programs before the arranged time, and changing disciplines are symptoms of students' academic failure, training a medical sciences student is costly [2].

It should be noted that academic failure and its consequences waste expenditures in this field, Universities vary widely in different regions, and this can be seen in the rankings of medical sciences universities [3].

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Medical teachers often work with students who have problems. Some of these students have knowledge deficits while others have attitude or behavioral problems, sometimes, it is hard to understand if a learner is presenting with a problem, distinguishing learner issues early and giving guidance from the beginning is an essential investment in the training and growth of potential practitioners, it will also help clinical educators, program directors and faculty developers [4].

The National Board of Internal Medicine has described the problem student as a trainee who reveals substantial problems that need the treatment of a program director or senior resident, describes a problem student as one with affective, cognitive, structural, and interpersonal problems, therefore, the problem student is a learner who does not meet the objectives of the training program due to a substantial problem with knowledge, attitude or skill [5].
Studies revealing on the prevalence of problem students are limited, the rates vary from 5.8% around a 4-year period in a psychiatry program to 9.1% around a 25-year period in a family medicine program, the absolute problems determined by educators were inefficient medical knowledge (48%), bad clinical judgment (44%) and inadequate use of time (44%), another study provides insufficient knowledge, attitudinal problems, interpersonal conflict, psychological illness, family tension and material abuse, it is hard to recognize a struggle student. Improved counseling and supervision might impose economic costs on the resources of both the program and the faculty, some medical teachers are worried that a troublesome learner may have a negative effect on educational programs and classmates. Medical educators would like to be able to predict who will become a problem learner, but studies predict different factors [6].

The reasons underlying the continuous scientific investigation of this phenomenon are based on the complexity of the factors involved, the different definitions of academic success and failure make systematic comparison of research results difficult, there is rarely one single reason that determines why a student will leave or stay in a program, they seem to be the product of complex interactions between individual student factors and institutional and professional factors, Unfortunately, studies on academic success or failure have not been consistent with regard to the different factors, to identify students at risk of academic failure, the factors associated with it must be identified, a comprehensive and systematic investment of the academic failure literature to date has not focused on the factors that affect problem learners [7].

Medical school Admissions Committees aim to ensure the students selected have the cognitive and emotional capacity to handle medical school, As a result, high undergraduate grade point averages and excellent grades in standardized tests such as the Medical School Admission Test (MCAT) are required for admission in North America. In addition, there has been a proliferation of psychometric

evaluations and mini mental tests as part of the interview process to ensure academic success in medical schools Educational researchers have attempted to develop strategies to identify students at risk of academic failure using undergraduate grade point averages, MCAT scores and other demographic and socioeconomic factors of medical students to predict academic success and failure [8].

There have been toolkits developed to identify students at risk of failure using the following criteria: failure of 3 or more examinations per year, an overall average of < 50%, health or social difficulties, failure to complete Hepatitis B vaccination on time, and remarks noted about poor attitude or behavior, a qualitative study of seven medical students who had failed the final examination has indicated that medical students are usually unaware of their risk of academic failure and concluded that the onus should be on teachers to identify students at risk during their formative assessments, the literature on identification of students at risk of academic failure is limited [9].

The overall structure of medical education in the world is almost identical, without a tangible difference in almost every country, Students have different characteristics that affect their academic progress and failure. Progress is the goal that is set by individuals for themselves, which is success in obtaining good grades and satisfaction with the acquired abilities and skills in educational settings, in contrast, academic failure encompasses dropout, repetition of courses, low quality of education and learning, failure of the education system to achieve its primary goals, and even the unemployment of the graduates of an educational center or their professional incompatibility with the employment needs of the community [10].

Several factors may lead to academic failure, such as age, gender, scientific background, motivation and interest in the field, marital status, occupation status, place of residence, parental employment and education level, financial ability, length of the study hours, and addiction, among the other influential factors in academic failure are drug abuse, dissatisfaction, loneliness, expectation of success, physical and mental health, lifestyle, depression, poor communication with friends and long interval between the high school diploma to university admission, intelligence and talent, indigenousness, grade point average, admission quota in college/university entrance exam, self-esteem, anxiety, family circumstances and background. These variables are closely correlated, and the exact effect of each on academic failure cannot be clarified [11].

Academic failure of students is not a personal problem, but rather a social issue; therefore, fundamental steps must be taken toward addressing the issue. Another important matter in this regard is the academic failure of some medical students due to job sensitivity and its role in the health maintenance of the community as graduate medical students will have poor performance in clinical settings following academic failure. In some cases, the consequences may be irreparable and

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impose a great economic burden on the community. In social terms, academic failure leads to the production of inefficient skilled labor and ultimately lowers the quality of care services. Individually, academic failure may cause poor communication with the environment and low social self-esteem, and depression or other mental health issues [12].

AIM OF STUDY
1. To identify the academic failure.
2. To identify the possible and relative factors of academic failure in medical students.
3. Explain how to reduce the low grade and academic failure of students and how develop their academic level.

SAMPLE AND METHOD
The current study is across sectional section study type was carried out in medical students from 21th of November 2022 to the 5th of March 2023.The study design was by convenient sampling, from medical students .The data was collected using Google form Questinaire.

Permission was taken from students to fill the information required and they were assured regarding the confidentiality of their responses. The aim of the study was explained and only those who agreed to participate are included in the study. The study was performed among medical students of Tikrit university college of medicine. The study design was by convenient sampling, from medical students .The sample size was 202 cases. Trained very well to interview the questionnaire carefully and in scientific way to avoid any bias. Respondents were assured that the information obtained would be confidential and used only for statistical purposes.The questionnaire used for data collection was designated in Arabic language. Interviewers administer it and it includes mainly closed questions.All data management and analysis was done by using manual statistical methods. Data have been represented suitable tables and figures.

RESULTS
The total samples of study was (202), the female was the most of sample (127) and male (75), the most stage in this study was sixth stage (61), then fifth stage (54).

Table 1: the factors that effect on low grades.

	Yes	No
Bad time management	188 (93%)	14 (7%)
family responsibility	50 (25%)	152 (75%)
Work while studying	98 (49%)	104 (51%)
pathological problems	12 (6%)	190 (94%)
Psychological problems	21 (10.4%)	181 (88.6%)
Low economic state	11 (5.4%)	191 (94.6%)

This table shows, how much factors affect students' grades, the bad time management is the most factors affecting on students with low grades (93%), work while studying (49%), family responsibility (25%), Psychological problems (10.4%), pathological problems (6%), Low economic state (5.4%).

Table 2: the factors that affect second trail and failure to pass final exams .

	second trail	failure to pass final exams
Bad time management	22 (35.4%)	8 (32%)
family responsibility	12 (19.3%)	4 (16%)
Work while studying	16 (25.8%)	6 (24%)
pathological problems	1 (1.6%)	2 (8%)
Psychological problems	7 (11.3%)	3 (12%)
Low economic state	4 (6.4%)	2 (8%)
Total	62	25

This table shows, that the students with second trial had highest bad time management (35.4%), work while studying (25.8%), family responsibility (19.3%), also students who fail to pass final exams the bad time managements is the most factors affecting in percentage (32%), work while studying (24%), family responsibility (16%).

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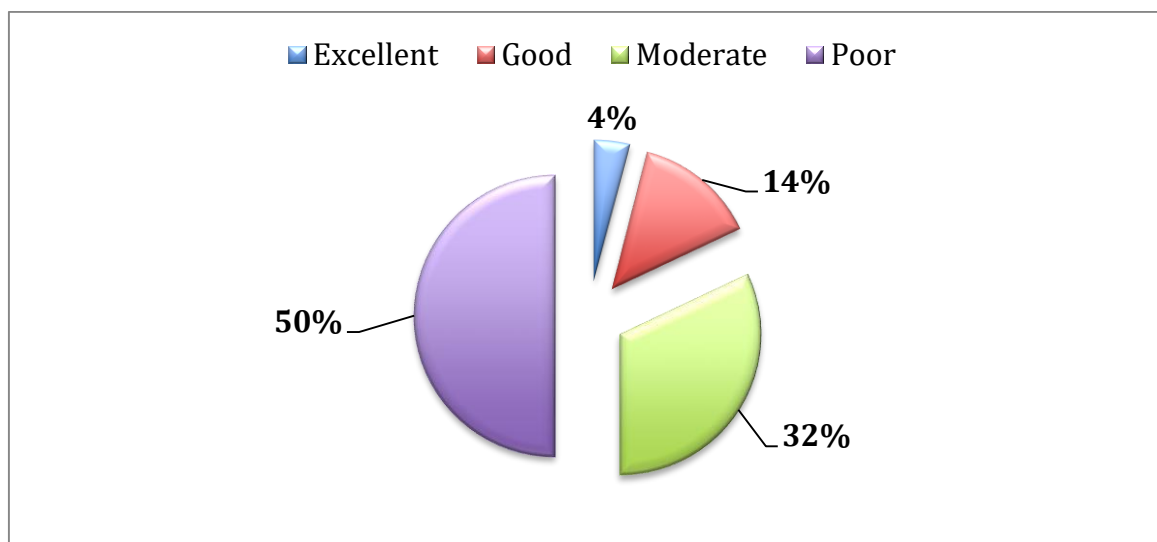**Identification of Factors of Low Grades and Academic Failure of Medical Students**

Figure 1: the Students' opinion on the evaluation of teaching quality.

This figure shows, that poor teaching quality is the highest percentage (50%) of evaluation, moderate (32%), good (14%), (4%) excellent.
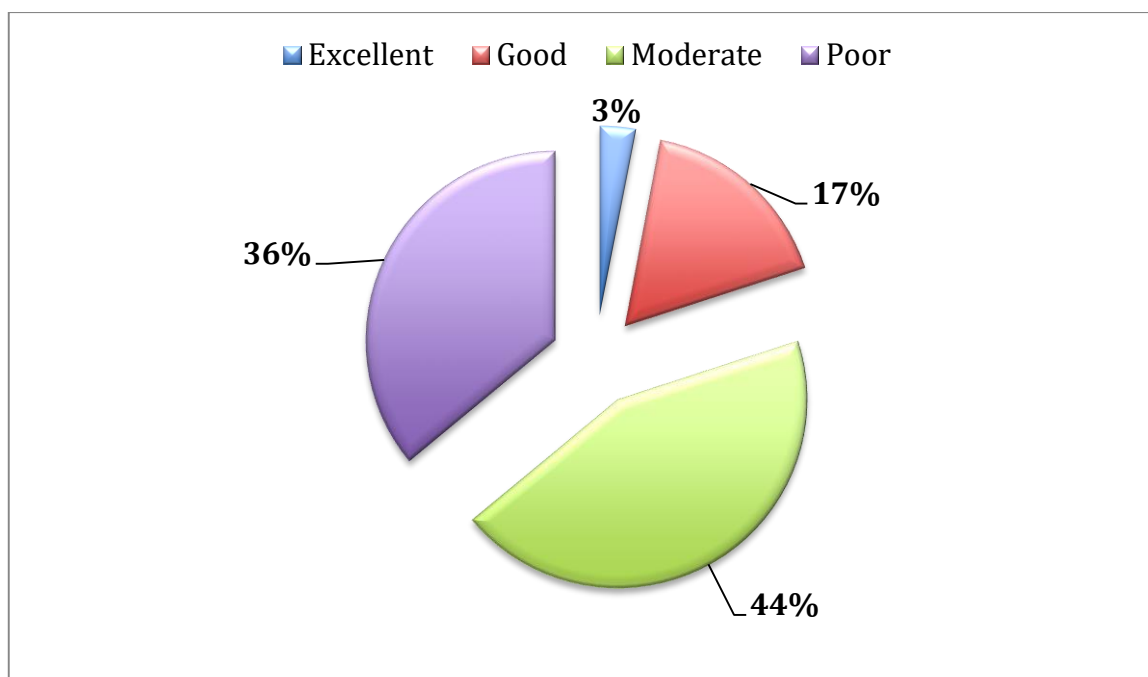

Figure 2: Students' satisfaction with effective teaching methods used in the college.

This figure shows, the students satisfaction with effective teaching methods is moderate (44%), poor (36%), good (17%) and excellent (3%).

DISCUSSION

The total sample of study was 202 of students with low grades, the bad time management is the most factors affecting on students with low grades (93%), work while studying (49%), family responsibility (25%), Psychological problems (10.4%), pathological problems (6%), Low economic state (5.4%).

While in study was conducted in Port Said, Egypt [13], the low economic state is the most factors effect on grades in percentage (71%), then bad time management (62%), and this

difference of results due to the low economy and the poverty of people in the city of Port Said.

In this study the students with second trial had highest bad time management (35.4%), work while studying (25.8%), family responsibility (19.3%), also students who fail to pass final exams the bad time managements is the most factors affecting in percentage (32%), work while studying (24%), family responsibility (16%).

Also this percentage approximately same in study was conducted in Braga, Portugal [14], that the students with second trial had highest bad time management (40%), work

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while studying (20%), family responsibility (18%), also students who fail to pass final exams the bad time managements is the most factors affecting in percentage (45%), work while studying (18%), family responsibility (14%).

Also the low economy and the poverty of people in the city of Port Said causing results of Port Said study, Egypt [13], low economic state is the most factors effecting on second trial and fail to pass second exams in percentage (38%) , (56%) respectively.

According to this study, the evaluations of students about teaching quality is poor in percentage (50%), moderate (32%), good (14%) and excellent (4%).

While in study was conducted in Riyadh, Saudi Arabia [15], the evaluations of students about teaching quality is poor in percentage (10%), moderate (15%), good (42%) and excellent (33%), and study of Braga, Portugal [14], the evaluations of students about teaching quality is poor in percentage (18%), moderate (21%), good (34%) and excellent (27%).

Also in this study the students satisfaction with effective teaching methods percentage is moderate (44%), poor (36%), good (17%) and excellent (3%).

While in study was conducted in Riyadh, Saudi Arabia [15], and study of Braga, Portugal [14], most of students is satisfice on effective teaching methods in percentage of good (86%) , (79%) respectively.

The variation in results when compare this study with studies of Riyadh, Saudi Arabia [15], and study of Braga, Portugal [14], due to Scientific development, scientific infrastructure, interest in scientists and scientific research of this country.

CONCLUSION

In this study, the bad time management is the most factors affecting on students with low grades. The bad time management is the most factors in students with second trial and fail to pass final exams. There is bad evaluations of students for teaching quality. There is no stratifications on the teaching methods by students.

The Limitations of the study:

The limitation is that there was no participation by all student after sending google form questianaire link.

Exclusion and Exclusion criteria:

The Exclusion criteria of participants was all students with a good academic level, while all other students were included in the study

sample questionnaire on academic failure in medical college:

1 Personal Information:

• Age: _____

• Gender: _

• Year of Study: _

Is there a failure year or 2nd trial exam?

(Yes or NO)

Drop in exam grades?

(Yes or NO)

2 Study Habits:

• On average, how many hours do you spend studying each day? _

• How often do you attend lectures and tutorials? _

• How often do you participate in group study sessions? _

1 How would you rate your time management skills?

2 Excellent

3 Good

4 Fair

5 Poor

6 Very poor

3 Family Background:

1 Do you have any family responsibilities that may affect your studies?

2 Yes

3 No

• If yes, please specify: _

4 Financial Status:

1 Do you work part-time while studying?

2 Yes

3 No

• If yes, how many hours per week do you work? _

5 Health Status:

1 Have you had any health issues that have affected your studies?

2 Yes

3 No

• If yes, please specify: _

6 Attitude towards Studies:

1 How interested are you in your course?

2 Very interested

3 Interested

4 Neutral

5 Not interested

6 Not at all interested

1 Do you feel motivated to do well in your studies?

2 Strongly agree

3 Agree

4 Neutral

5 Disagree

6 Strongly disagree

7 Support Systems:

1 Do you have a support system (e.g. family, friends, tutor) to help you with your studies?

2 Yes

3 No

1 If yes, how helpful has this support system been?

2 Extremely helpful

3 Helpful

4 Neutral

5 Not helpful

6 Not at all helpful

8 Challenges faced in studies:

1 What challenges have you faced in your studies so far?

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(Select all that apply)
2 Lack of motivation
3 Poor time management
4 Financial difficulties
5 Health issues
6 Difficulty understanding course material
7 Others (please specify): _
9 Suggestions for improvement:
1 What suggestions do you have for the college to help students overcome academic failure?
2 Better support systems
3 Improved teaching methods
4 More opportunities for extra help
5 Better study facilities
6 Others (please specify): _
10. Perceptions of teaching quality:
10. Perceptions of teaching quality:
1. How would you rate the quality of teaching in your college?
2. Excellent
3. Good
4. Fair
5. Poor
6. Very poor
7. Do you feel that the teaching methods used in the college are effective?
8. Strongly agree
9. Agree
10. Neutral
11. Disagree
12. Strongly disagree
11. Study environment:
1. How satisfied are you with the study facilities (e.g. library, labs) in your college?
2. Extremely satisfied
3. Satisfied
4. Neutral
5. Dissatisfied
6. Extremely dissatisfied
7. Do you feel that the college provides a supportive and conducive study environment?
8. Strongly agree
9. Agree
10. Neutral
11. Disagree
12. Strongly disagree
13. Access to resources:
1. Do you feel that you have access to enough resources (e.g. textbooks, online resources) to support your studies?
2. Strongly agree
3. Agree
4. Neutral
5. Disagree
6. Strongly disagree

13. Student support services:
1. Have you made use of any student support services (e.g. counseling, tutoring) offered by the college?
2. Yes
3. No
4. If yes, how helpful have these services been in overcoming academic difficulties?
5. Extremely helpful
6. Helpful
7. Neutral
8. Not helpful
9. Not at all helpful
14. Feedback and assessment:
1. How do you feel about the feedback and assessment methods used by the college?
2. Excellent
3. Good
4. Fair
5. Poor
6. Very poor
7. Do you feel that the feedback and assessment methods are fair and provide a clear understanding of your performance?
8. Strongly agree
9. Agree
10. Neutral
11. Disagree
12. Strongly disagree

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