

Research Article

PREVALENCE AND RISK FACTORS CONTRIBUTED TO ABSENTEEISM AMONG MEDICAL STUDENTS IN SUDAN INTERNATIONAL UNIVERSITY, KHARTOUM, SUDAN

¹Mona Isameldin, ^{2,*}Elsharif A. Bazie, ³Razan Alrasheed Mubarak,
³Shafag Abdalgadeer Gafar and ³Weaam Abbas, A.I.

¹Sudan International University, Sudan

²Elimam Elmahdi University, Sudan

³Sudan International University, Sudan

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Abstract

Background: Absenteeism is a significant problem in gaining knowledge, innovation, and skills to achieve personal and professional goals. The absenteeism of medical students from classrooms and clinical settings harms their performance and prolongs the length of their studying. **Objective:** This study aimed to identify the Prevalence and risk factors Contributed to Absenteeism among medical Students at the Faculty of Medicine, Sudan International University. **Methodology:** Descriptive cross-sectional design was used. Data were collected by using a self-administered questionnaire. **Results:** The study findings of the investigated factors influencing absenteeism among the participating medical students reported that the highest mean scores were associated with Poor health conditions (41.1%), transportation factors (24.9%), followed by intention to work more than to study (21%), Job (15.6%), followed by Preparing to other exams and illness (12.5%) and other social factors. In addition, absence in morning lectures (69.1%) is higher than absence at other times of lectures. **Conclusion:** This study concluded that the most common contributing factors affecting medical students' absenteeism were poor health conditions, transportation, and early lecture time.

Keywords: Absenteeism, Medical Student, Sudan.

INTRODUCTION

Undergraduate medical education aims to produce a physician with adequate knowledge of health and diseases and produce a physician(doctor) with reasonable medical skills and a healthy attitude toward patients and their families (Fernandes *et al.*, 2008). One of the most vital considerations among students at higher educational levels is academic performance though there are some differences in performance among the students. Student attendance is an essential factor in the academic performance of medical students, as clinical contact and teaching are necessary to develop competence (Hafferty and Castellani, 2009). Absenteeism at higher education levels affects the learning process of the students as well as the result at the end of the academic session (Fiel, 1976). Several studies identify internal and external factors associated with academic performance. Class absenteeism is one of the factors that harm the mastery of the academic curriculum (Riggs and Blanco, 1994; Sharmin *et al.*, 2017). Absenteeism is a tendency to be away from work or school (Mish, 2004) without a good reason: the performance or habit of being absent from work or school. The students who are not come to schools, colleges, and universities regularly and do not attend the classes are called absent. Students who come to universities but do not attend classes are called absent. This habitual act of students is called Absenteeism (Baharom *et al.*, 2017), while performance is the act of the point or the state of being performed (Watkins, 2000). Over sleeping was the primary causes of absenteeism, although studies have documented that availability of lectures handout, online slides, videos or audio recordings as sources for teaching leads to absenteeism among students (Cook and David, 2005; Ruiz *et al.*, 2006).

The aim of our study to identify the factors and prevalence of absenteeism among our students

Objective

General objective: To identify Prevalence and Factors Contributed to Absenteeism among medical Students at Faculty of Medicine University of Sudan international university.

Specific objective

1. To compare between reasons of absenteeism in relation to gender of medical students.
2. To compare between reasons of absenteeism in relation to academic phase.
3. To identify the relationship between absenteeism and the root of transportation.
4. To investigates the impact of enforcing an attendance policy on absenteeism.
5. To explore the roll of providing hand out on absenteeism.

METHODOLOGY

Study Design: The study was a descriptive, cross-sectional based study.

Study population: The study populations were Students at the college of medicine at Sudan International University during the period of study.

- **Exclusion criteria:** - Students who do not agree to participate
- Students of other colleges

- **Inclusion criteria:** All medical students in Sudan International University included all nationalities.

Study area: The study will be conducted at Sudan International University (SIU), a private university founded in 1990 and located in Khartoum, Sudan. The university has been accredited by the Sudan Ministry of Higher Education and Scientific Research. The buildings of Sudan International University are in the state of Khartoum, where the buildings are distributed in the cities of Arquette and Al-Azhari. The city of Al-Azhari has the Medical and Engineering Complex. The buildings of Arquette include the Faculties of Tourism and Hotel, Faculties of Computer Science and Economics, Faculty of Dentistry, Pharmacy, Nursing, Medical Laboratory Sciences and Management Sciences, Sudan International Language Center (SILC), Department of Quality Assurance and Self-Evaluation.

Study Duration: The study was conducted from October to December 2020.

Sample size: Sample sizes were taken according to the equation:

$$n = \text{Sample Size } N = \text{Total Population } d = \text{Degree of Accuracy } (0.05) \text{ Total Population} = 1589$$

Study collection tools

Different focus groups of medical students would be created for the questionnaire design. Apart from the focus group discussion, the main reasons found in the literature were included. The modified survey questionnaire will be peer-reviewed by a panel of experts. Students would be briefed about the study, and at the end of a lecture, questionnaires would distribute, and time would allocate to fill the desired questionnaire after consent. The online form will also be available through Google, and students who were not present at that time were encouraged to fill out the form. Students were assured that they could withdraw at any time without reprisal. The survey questionnaire tool utilized in this study is composed of two parts. In the first part, each student responded to an anonymous self-administered questionnaire requesting information about his/her gender, age, residence, and means of transportation to college. The second part of the questionnaire was to investigate and assess the absenteeism behavior among students in lectures, clinical and diagnostic skills sessions, and Grade 14 point average (GPA). This part contains twenty items on a Likert scale (1, strongly disagree to 5, strongly agree).

Sampling technique: In each faculty (385), students were selected statistical simple random sample.

Data analysis and interpretation A questionnaire was used to collect the required data, and analysis would be done using SPSS, version 24.0.

Ethical consideration: The research was approved by the faculty of medicine at Sudan International University. All approached respondents agreed to participate in the study. The research purpose was explained to the participant in clear and straightforward words. Participant has the right to voluntary informed consent, the right to withdraw at any time without any deprivation, and the right to no harm.

RESULTS

Absenteeism of students is a great concern for university education around the world. In college settings, students encounter their first experience with academic lectures in lecture halls or large classrooms, and attendance is not compulsory.

The study found that females were 225 (63.7%) students figure 1. The age distribution of the study population was age below 20 were 78(22.1%) students, between 20–25 were 212 (60.1%) students, 25-30 were 52(14.7%)students, and more than 30 were 11(3.1%) students. Table 1.

Table 1. Age distributions of students [n=353]

b	Frequency	Percent
Below20	78	22.1%
20-25	212	60.1%
25-30	52	14.7%
Above35	11	3.1%
Total	353	100%

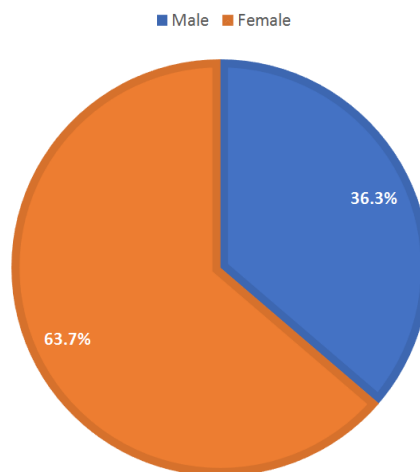


Figure 1. Gender Distribution[n=353]

Marital status of the study population: single were 296 (83.9%) students & 57(16.1%) students were married Figure 2.

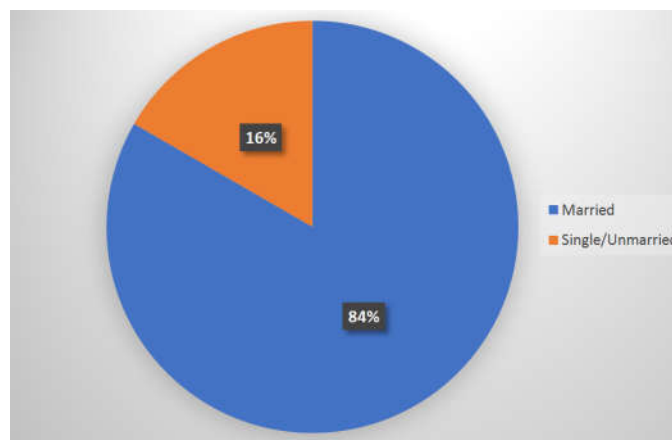


Figure 2. Marital Status of the Students[n=353]

The distribution of students per academic year showed: that the first year was 68(19.3%) students, the second year was 83(23.5%) students, the third year was 84(23.8%) students, the fourth year was 60(17%) students, and the fifth year was 58(16.4%) students table 2.

Table 2. Academic years of study populations [n=353]

	Frequency	Percent
First year	68	19.3%
Second year	83	23.5%
Third year	84	23.8%
Fourth year	60	17%
Fifth year	58	16.4%
Total	353	100%

Study population distribution by living place is 206 (58.4%) students from Khartoum, Khartoum North (Bahri) were 82(23.2%) students, and Omdurman was 65(18.4%) students. Figure 3.

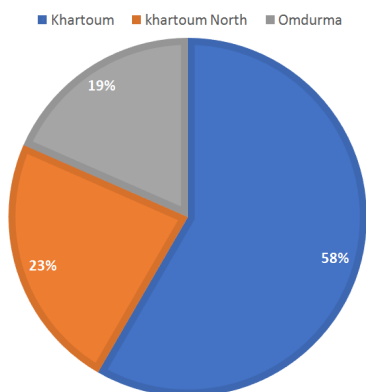


Figure 3. Living place distribution of students [n=353]

The working hours of the study population showed 1-8 hours/week were 63(17.8%) students, 8-16 hours/week were 45 (12.7%) students, 16-40 hours per week were 17(4.8%) students, and not working were 224 (63.5%) students Table 3.

Table 3. Working hours of students

	Frequency	Percent
1-8 hour per week	63	17.8%
16-40 hour per week	1	3%
16-40 hour per week	16	4.5%
8-16hourperweek	45	12.7%
I don't work	224	63.5%
Morethan40 hour per week	4	1.1%
Total	353	100%

The mode of transportation of students to university distribution showed that 120(34%) students used private cars, 169(47.9%) students used public transport, 46(13%) students shared a bus, and 18(3.1%) students through walking Figure 4.

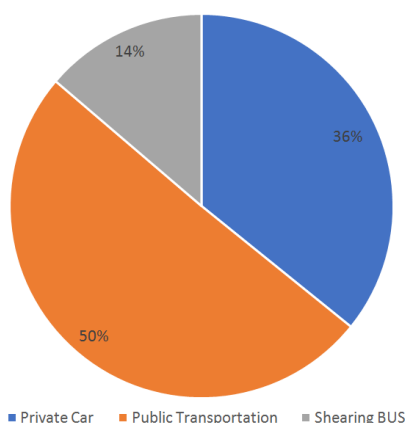


Figure 4. Mode of transportation of students to the university [n=353]

The duration of absence of the study population per one semester was found to be: 1-5 days per semester in 157 (44%1) students, 1- 2 weeks per semester were 119 (33.7%) students, more than two weeks and less than one month per semester were 38(10.8%) students, one month or more per semester were eight (2.3%) students and those who never missed any day per semester were 31 (8.8%) students Table 4.

Table 4. Duration of the Students absence per semester [n=353]

	Frequency	Percent
1 - 2weeks	119	33.7%
1-5days	157	44.5%
In ever missed class or any academic activity	31	8.8%
More than weeks and less than one month	38	10.8%
One month or more	8	2.3%
Total	353	100%

The reasons reported by the study participants for missing lectures showed: were due to family problems for 38(10.8%) students, illness for 43(12.2%) students, having jobs(working) for 55(15.6%) students, lack of interest in the subject were 13(3.7%) students, late notification was 22(6.2%) students, preparing for other exams were 44(12.5%) students, relationships with classmates problems were 14(4%) students, sleeping were 36(10.2%) students, and transportation issues were 88 (24.9%) students. Table 5.

Table 5. The reasons behind the absence of students from semester [n=353]

	Frequency	Percent
Family problems	38	10.8%
Illness	43	12.2%
Job	55	15.6%
Lack of Interest in the subject	13	3.7%
Late notification	22	6.2%
Preparing of other exams	44	12.5%
Relationships with classmate	14	4%
Sleeping	36	10.2%
Transportation	88	24.9%
Total	353	100%

The most frequent times of absence among students are: absent in the morning was seen in 244(69.1%) students, and absent in the afternoon time was seen in 107(30.3%) students, 32.9% of students at the beginning of academic years, (28.6%) students at the beginning of the week, (33.4%) students at the end of the week are the most absent time. (24.1%) students' absence is during the pre-exams period and at the end of the year, Table 6. Factors regarding teacher and teaching material our results showed: 232 (65.7%) students agree it is better to have educational materials available on the Internet, 180 (51%) students agree that studying at home is better, 137 (38.8%) students agree that they could not hear the teacher's voice, 191(54.1%) students agree that the lecture hall was uncomfortable Table 7. Regarding interest in attending clinical rounds, 333(94.3%) students were interested in attending clinical rounds / practical sessions, and 20(5.7%) students were not. Figure 5. Regarding the university's role in enhancing the discipline and attendance of medical students, 292(82.7%) students said "yes," and 61(17.3%) students said "No." Figure 6. The study correlation showed that Student absenteeism was significantly associated with the academic year and factors related to the absence[p-Value < 0.05]: 28.4% of fifth-semester students believe that lack of motivation is the reason for their absence, 32.4% of first-semester students believe that Poor

Table 6. Showing when absenteeism occurs among students [n=353]

		Frequency	Percent
Absent in morning lectures (7:00 -10 am)	Agree	244	69.1%
	Disagree	59	16.7%
	Neutral	50	14.2%
Absent in afternoon lectures(11am_1pm)	Agree	107	30.3%
	Disagree	186	52.7%
	Neutral	60	17%
Absent at beginning of academic years (pre-midterm)	Agree	116	32.9%
	Disagree	167	47.3%
	Neutral	70	19.8%
Absent at pre- exams at the end of the semester	Agree	85	24.1%
	Disagree	2	.6%
	Neutral	204	57.8%
Absent at beginning of the week (Sat- Monday)	Agree	101	28.6%
	Disagree	176	49.9%
	Neutral	76	21.5%
Absent at the end of the week	Agree	118	33.4%
	disagree	164	46.6%
	Neutral	71	20.1%
	Total	353	100%

Table 7. Factors related to teacher and teaching material that affected student's absenteeism [n=353]

		Frequency	Percent
Better Teaching material is available on internet	Agree	232	65.7%
	Disagree	62	17.6%
	Neutral	59	16.7%
Studying at home is better	Agree	180	51%
	Disagree	113	32%
	Neutral	60	17%
I can' the arvoice of Teacher	Agree	137	38.8%
	Disagree	139	39.4%
	Neutral	77	21.8%
The lecture theatre is not comfortable	Agree	191	54.1%
	Disagree	109	30.9%
	Neutral	53	15%
	Total	353	100%

Table 8. Shows a relationship between academic year and factorsre lated to the absence [n=353]

		Academic year										P-value
		Fifth year		First year		Fourth year		Second year		Third year		
		C	%	C	%	C	%	C	%	C	%	
Loss of motivation	Agree	27	28.4%	25	26.3%	8	8.4%	17	17.9%	18	18.9%	.000*
	disagree	22	12.4%	35	19.7%	34	19.1%	48	27.0%	39	21.9%	
	Neutral	9	11.3%	8	10.0%	18	22.5%	18	22.5%	27	33.8%	
Poor health conditions	Agree	39	26.9%	47	32.4%	13	9.0%	22	15.2%	24	16.6%	.000*
	disagree	9	10.3%	9	10.3%	20	23.0%	17	19.5%	32	36.8%	
	Neutral	10	8.3%	12	9.9%	27	22.3%	44	36.4%	28	23.1%	
Low ambition	Agree	23	26.1%	22	25.0%	12	13.6%	14	15.9%	17	19.3%	.001*
	disagree	14	9.7%	34	23.4%	30	20.7%	31	21.4%	36	24.8%	
	Neutral	21	17.5%	12	10.0%	18	15.0%	38	31.7%	31	25.8%	
Poor self confidence	Agree	9	18.8%	4	8.3%	11	22.9%	14	29.2%	10	20.8%	.000*
	disagree	31	18.5%	51	30.4%	22	13.1%	25	14.9%	39	23.2%	
	Neutral	18	13.1%	13	9.5%	27	19.7%	44	32.1%	35	25.5%	
Shamefulness and hesitation toward others	Agree	10	20.0%	6	12.0%	12	24.0%	11	22.0%	11	22.0%	.030*
	disagree	36	20.1%	43	24.0%	25	14.0%	34	19.0%	41	22.9%	
	Neutral	12	9.7%	19	15.3%	23	18.5%	38	30.6%	32	25.8%	
Under estimation of the college	Agree	13	21.7%	8	13.3%	10	16.7%	17	28.3%	12	20.0%	.014*
	disagree	30	17.5%	45	26.3%	28	16.4%	28	16.4%	40	23.4%	
	Neutral	15	12.3%	15	12.3%	22	18.0%	38	31.1%	32	26.2%	
Intention to work more than to study	Agree	20	27.0%	9	12.2%	13	17.6%	16	21.6%	16	21.6%	.004*
	disagree	18	11.5%	45	28.8%	24	15.4%	35	22.4%	34	21.8%	
	Neutral	20	16.3%	14	11.4%	23	18.7%	32	26.0%	34	27.6%	

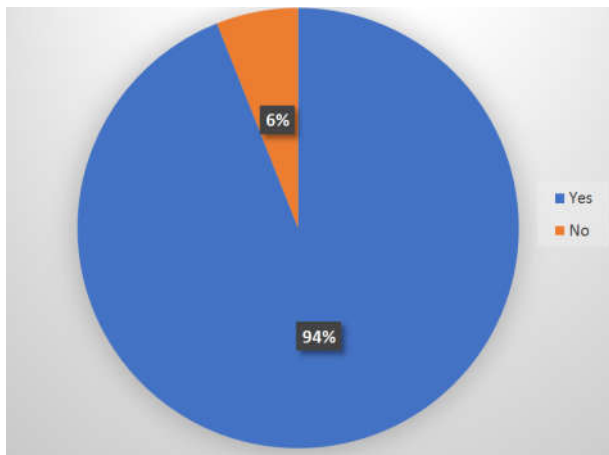


Figure 5. Students Attending clinical rounds/practical sessions n=353

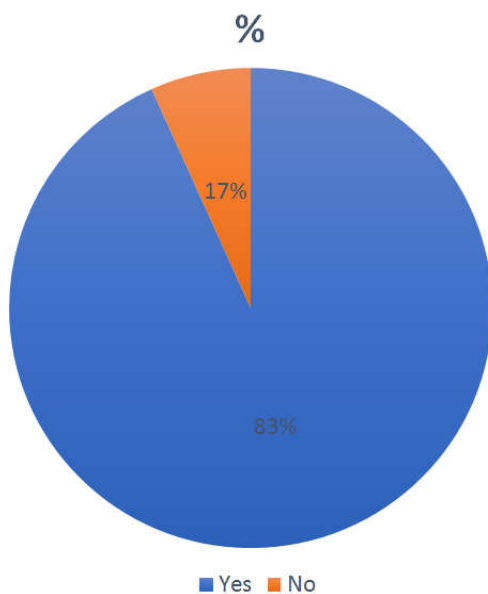


Figure 6. Showing if the university has a role in promoting discipline and attendance for medical students [n=353]

health conditions are the reason for their absence, 26.1% of fifth-semester students believe that low ambition is the reason for their absence, 29.2% of second-semester students believe that Poor self-confidence is the reason for their absence, 24.0% of the fourth-semester students believe that shameful and hesitation toward others is the reason for their absence, 28.3% of second-semester students believe that underestimation of the college is the reason for their absence, and 27.0% of fifth semester students believe that intention to work more than to study is the reason for their absence Table 8.

DISCUSSION

The problem of absenteeism is becoming a concern of every member of society since it results in negative consequences at the individual and social levels. For instance, studies carried out by Bowen (2005) have shown students who attended the classes with less absenteeism seem to be more successful in their studies than those who frequently absent themselves. The study found that most of the study populations were female, in a survey by Khalid (2017), female responders were predominant, while in Faiz *et al.* (2015), a study in Sudan male students were more prevalent than females, Most of our study

population was aged between (20 – 25), which is almost like Khalid's (Khalid, 2012) study. We reported that the semester's absence duration was typical from 1-5 days to 1- 2 weeks, which agrees with a study done in South Africa by Newman Wadesango and Severino Machingambi (2011). In this study, the most reasons for missing a lecture by students are working (having a job), illness, and preparing for the exam. In Desalegn *et al.* (2014) study participants reported that the primary reasons for not attending lectures were preparing for another examination, irregular class schedule, lack of interest in the lectures content, dislike of staff teaching style, and the ease of understanding the subject matter without guidance. In our study, lack of interest in lectures is the least responsible for absenteeism, whereas, in Abdulaziz A. Saeed (2009), the main reasons stated by his study population for desertion were lengthy lectures and a lack of interest in the lecture subject. Most of our participants mentioned absence is during the pre-exams period and at the end of the year; this may be due to a lack of preparedness, so the students prefer to spend time on study rather than attending lectures, and this agrees with a study done by Abdulaziz A. Bin Saeed *et al.* in Saudi Arabia (2009). According to our study, Student absenteeism was significantly associated with the academic year and factors related to the 41 absences; in our research, Student absenteeism was significantly associated with marital status. When absenteeism occurs among students, married students are more susceptible to absence due to non-academic workloads.

REFERENCES

- Fernandes, L., Maley, M. and Cruickshank, C. 2008. The impact of online lecture recordings on learning outcomes in pharmacology. *J Int Assoc Med Sci Educ*, 18(2), 62-70.
- Hafferty, F. W. and Castellani, B. 2009. The hidden curriculum: a theory of medical education. In *Handbook of the sociology of medical education* (pp. 15-35). Routledge.
- Fiel, N. J. 1976. The lecture: increasing student learning. *Journal of medical education*.
- Riggs, J. W. and Blanco, J. D. 1994. Is there a relation between student lecture attendance and clinical science subject examination score?. *Obstetrics and gynecology*, 84(2), 311-313.
- Sharmin, T., Azim, E., Choudhury, S. and Kamrun, S. 2017. Reasons of absenteeism among undergraduate medical students: a review. *Anwer Khan Modern Medical College Journal*, 8(1), 60-66.
- Mish, F. C. (Ed.). 2004. Merriam-Webster's collegiate dictionary (Vol. 1). Merriam-Webster.
- Baharom, M. N., Sharfuddin, M. D. K. B. and Iqbal, J. 2017. A systematic review on the deviant workplace behavior. *Review of Public Administration and Management*, 5(3), 1-8.
- Watkins, C. (Ed.). 2000. The American heritage dictionary of Indo-European roots. Houghton Mifflin Harcourt.
- Cook, David A. MD. 2005 The Research We Still Are Not Doing: An Agenda for the Study of Computer-Based Learning. *Academic Medicine*, Volume 80 - Issue 6 - p 541-548
- Ruiz, J. G., Mintzer, M. J. and Leipzig, R. M. 2006. The impact of e-learning in medical education. *Academic medicine*, 81(3), 207-212.
- Bowen C. 2005. Improving the quality and quantity of attendance data to enhance student retention. *Journal of Further and Higher Education*, 31: 1-39.

- Khalid N. Effects of absenteeism on students performance. *International Journal of Scientific. Research Publications.* 2017; 7(9):151.
- FAIZA, A. N., *et al.* 2015. Prevalence and factors contributed to absenteeism among nursing students at Faculty of Nursing Sciences, University of Khartoum-Sudan. *International Journal of Medical and Health Sciences*, 4.4: 408-413.
- Newman Wadesango and Severino Machingambi, 2011. Causes and Structural Effects of Student Absenteeism: A Case Study of Three South African Universities, *Journal of Social Sciences*, 26:2, 89-97.
- Desalegn, A.A., Berhan, A. and Berhan, Y. 2014. Absenteeism among medical and health science undergraduate students at Hawassa University, Ethiopia. *BMC Med Educ.*, 14, 81, <https://doi.org/10.1186/1472-6920-14-81>
- BINSAEED, Abdulaziz A., *et al.* 2009. Association between student absenteeism at a medical college and their academic grades. *J Int Assoc Med Sci Educ*, 2009, 19.4: 155-159.
