



THE LIVED EXPERIENCE OF MISTREATMENT AMONG MEDICAL
STUDENTS THE CASE OF ST. PAULS'S HOSPITAL MILLENNIUM
MEDICAL COLLEGE, ADDIS ABABA ETHIOPIA

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This is to certify the thesis prepared by Tsedey Yeshitila Belayneh entitled “THE LIVED EXPERIENCE OF MISTREATMENT AMONG MEDICAL STUDENTS THE CASE OF ST. PAULS’S HOSPITAL MILLENNIUM MEDICAL COLLEGE, ADDIS ABABA ETHIOPIA” and submitted in partial fulfillment of requirements for the degree of masters of science in Health Science Education complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Acronyms

AA	Addis Ababa
CSA	Central Statistics Agency
SPHMMC	St Paul's Hospital Millennium Medical College
SPSS	Statistical Package for the Social Science
WHO	World health organization
IRB	Institutional review board
CDC	Center for disease control
SDG	Sustainable development goals
GTP	Growth and Transformation plan
AFMC	Association of Faculties of Medicine of Canada
NICU	Neonatal intensive care unit

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Abstract

Mistreatment of medical students has long been a challenge in medical schools of various countries. However, studies assessing the prevalence and its effects on students' perceptions of their professional development are scant in Ethiopia. Thus, this study is an attempt to contribute empirical evidence to fill this gap. Specifically, the paper probes the prevalence of exposure to mistreatment among intern medical students at St. Paul Hospital Millennium Medical College, Addis Ababa, Ethiopia. Both quantitative and qualitative data were collected from primary and secondary source. The data collected were analyzed and discussed using several descriptive statistics. The survey result revealed the presence of different types of mistreatment, which fairly varies between male and female students. The most important ones were yelling or shouting that is offensive, harsh, or insulting speech on both male and female students and some sort of sexual harassment in only female students. Threat to unfair grade and giving some kind of negative or disparaging remarks are also types of mistreatments (closer to often) perceived and reported by students. The paper also find evidence that nurses and residents were most important source of mistreatment in the learning environment. However, the reasons for such unprofessional conducts were not very clear to most of them. The perceived effect of one or more types of mistreatments were also analyzed and the result shows that medical students who experience mistreatment are found to have hurtful outcomes on their emotional security and professional attitudes. Specifically, many students indicated to sometimes feel a sense of regret in choice of career or lack of satisfaction their educational experience, hating the health environment and depression and low self-confidence. Such feelings of distress during intern status of studies could exacerbate the compromising quality of potential physicians and health care system. Qualitative analysis of data was also highly consistent with the above findings and used for triangulation purpose. The study concludes by highlighting some short- and long-term recommendations that can help the school develop policies and eradicate the widespread and complex mistreatment phenomenon.

Keyword: Mistreatment, Medical students, St. Paul Hospital Millennium Medical College, Ethiopia

1. INTRODUCTION

1.1 Background of the study

Ethiopia is land-locked country situated in eastern part of Africa. Religious education was the commonest way of education in both Christian and Moslem. the relationship between teacher and student was strictly authoritarian with the quality of acceptance and obedience on the part of the student. This indicated that the traditional system is counteracted in the modern educational system.

Ethiopia has a population of more than 100 million, the second largest in Africa after Nigeria ¹² and among the poorest in health indicators ¹³.

The gap between the basic health services demand and supply has been increasingly high partly due to shortage of trained physicians. In view of this, the Government of Ethiopia and its development partners have recently focused on strengthening the health care system through massive training of physicians. Thus, the number of higher learning institutions has increased exponentially. The country had only two universities before 2000. Currently, there are more than 40 public universities and hundreds of colleges, engaged in training of professionals in various disciplines. As Ethiopian ministry of education¹⁵ indicated, most of the universities have health related faculties contributing to generate health professionals – reduce the doctor-to-population ratio. But, as a consequence of this expansion, there has been considerable public concern about the quality of education and the challenges that future physicians face ⁵ . Among the major challenges, the prevalence of mistreatment towards medical students can be mentioned as an important issue and will be a concern of this research paper.

Mistreatment can be a problem on a personal, organizational and societal levels. Medical student in many low- and middle-income countries in the world suffer from abuse, harassment and mistreatment at school. In most cases, exposure to mistreatment has immense effect to health of individual and success on profession as well as happiness ⁹ . Along with the increase in the number of health facilities and medical schools, improving the process of production quality doctors to the county is important. While a number of strategies have been developed to improve the training and retention of medical doctors in the country, understanding the perceptions and

attitudes of medical students towards their training, incidence of mistreatments and intent to migrate can contribute in addressing the problem.

Several studies conducted in the USA, Colombia, Saudi, Pakistan, Nigeria etc, has confirmed the presence of mistreatment of medical students in school since the late 1980s. Moreover, studies have examined mistreatment and its effects on medical students and have demonstrated harmful associations such as less academic achievement¹¹), higher stress ²⁶ , symptoms of post-traumatic stress¹² and later professional attitudes ⁷ .

Even though this problem was discovered about three decades ago, mistreatment among medical students continues to be high in different countries⁷ . However, in Ethiopia, to our knowledge, no research exists to date that studies the prevalence of medical students' mistreatment at higher learning institutions, and its negative consequences. Therefore, this study will be an attempt to contribute empirical evidence to fill this gap. Specifically, the study will be carried out in one of the largest public hospital – St. Paul's hospital millennium medical college- in Ethiopia. Hence, the findings are expected to provide an overall picture of the lived experiences and types of mistreatments from their own perspectives during their internship year. It will also serve as baseline for planning more rigorous studies and designing interventions.

1.2 Research objective

1.2.1 General Objective

The main objective of this study is to assess the lived experiences of mistreatment and its perceived effect among medical students in SPHMMC.

1.2.2 Specific Objective

The specific objectives of the study are to:

1. Identify if there is perceived mistreatment among medical students of SPMMC;
2. Determine types of mistreatment among medical students of SPHMMC

3. Explore the reason of mistreatment among medical students of SPHMMC
4. Examine the students' perception of the effect of mistreatment at SPHMMC.

1.3. Significance of the Study

The contribution of this paper is many folds. As noted above, the study aims to shed some light on the challenges of students in terms of mistreatment practices during their clinical training. Hence, the outcome of the study contributes to narrowing the information gaps and contribute the scant literature in the country. Therefore, the potential users of the results of this study are health service practitioners, health institutes - governmental and non-governmental organization, who want to work on the development of the quality health education system in the country. Knowing the problem and designing appropriate intervention in medical teaching institutions is expected to improve quality of prospective doctors and decrease health care costs, which is a priority of governmental and funding agencies, as stipulated in the UN sustainable development goals (SDG) and Ethiopia's Growth and Transformation Plan (GTP) II health targets. Furthermore, this study could be used as source material for further study.

1.4 Scope and Limitation of the Study

This study is mainly based on a cross-sectional data collected in 2019 from medical students in St. Paul's hospital. The hospital is one of the largest public teaching hospitals in Addis Ababa, and provide education to nurses, doctors, etc., thus, it represents typical health institute in Ethiopia. This study focuses only to the intern medical students as they are most scarce health workforce with a higher rank of responsibilities in the country context. Due to the time limit and budget constraint the study do not include other students, who are junior year than intern level.

2. LITRATURE REVIEW

This chapter reviews the definitions, indicators and effects of medical students' mistreatment. Further, the findings of various empirical research work in the subject are reviewed and presented.

2.1 The concept of student's mistreatment

On the behavioral level, mistreatment may be operationally defined as behavior by healthcare professionals and students which are exploitive or punishing. Examples of mistreatment include: verbal abuse, physical punishment, physical threats, or violence; sexual harassment or sexual assault; discrimination based on race, color, national origin- birth place, age, or sex etc. It also referred to as a psychological punishment of a student by a particular superior, such as public humiliation, threats, intimidation, or removal of privileges; grading used to punish a student rather than to evaluate objective performance; assigning tasks for punishment rather than educational purposes; requiring the performance of personal services; taking credit for another individual's work; intentional neglect or intentional lack of communication can be mentioned.
4 6 , 6 .

2.2 Empirical evidences on medical student mistreatment

Vast majority of studies in the subject of medical student mistreatment have confirmed that the problem is an international phenomenon. Recently, several studies identified medical student mistreatment is still very common and doesn't decreased with time. In order to identify the extent of this problem, the researcher drew upon several studies from different countries. For example, an experience of published in Nigeria, 98.5% had one or more form of mistreatment during their medical school stay ;92.6% had shouting, which is the commonest form of mistreatment. Followed by public humiliation which accounted 87.4%, 71.4% were given

negative remarks about their academic performance, 67.7% assigned tasks as punishment, 49.4% someone taking credit for work done by others. Discrimination by age or religion were 34.2%, sexual harassment was 33.8%, and 26.4% threats of harm. It is happened by physicians and resulted bad relation with the perpetrators, reduced self-confidence and depression¹⁷ .

A study from Brazil the prevalence of mistreatment is very high with two thirds of the students had severe form, and a third reported experiencing recurrent victimization ²⁰ .

Other studies in Nigeria also revealed 35.5% had one or more forms of mistreatment during their training, with 38.5% of them experiencing it weekly. Verbal abuse was the most common form of mistreatment which is seen in 52.5%, and the main source of mistreatment was consultants, (18.6%) other cadre of doctors (17.3%) and lecturers (14.4%). ²⁶

Study from chilly showed 91% experience at least one episodes of abuse ¹⁸ . Another study from two Australian medical schools, examined teaching by humiliation among students during clinical rotations¹⁹ . Most reported having experienced teaching by humiliation 83.6%. intimidating questioning style were the most prevalent. Surprisingly, 30%–50% of the students who had witnessed teaching by humiliation considered it a useful strategy for learning.

The surveys in the University of Maiduguri medical college in Nigeria, teaches be littles and/or humiliates a student who has fallen with the belief that such humiliation as part of feedback will lead to improvement in future performance. many students continue to experience with only very few reporting the incidents to relevant authorities. 85% had experienced this form of mistreatment.

In other study more than half experienced some form of mistreatment. Verbal and power mistreatment were most common, but 5% of students reported physical mistreatment. residents and clinical faculty were the most common sources of mistreatment²².

The research done in US showed that, mistreatment are very common for medical school. The research result shows that from the total of 2,316 students 42% of medical student experienced gender-based violence and 84% of them also experienced depreciation throughout their course. The study showed that, from the mistreatment they had experienced the student were scientifically affected where as 13% of participants expressed that the effect of the mistreatment was not severe.

On top of this, the Association of American Medical Colleges Graduation Questionnaire showed, students learned some kind of mistreatment during they finalizing their fourth year of education.

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A cross sectional study from Pakistan, ²⁴ revealed that from 358 2nd and 3rd year medical students, above 90% of them mistreated at least once. 9.7% of them revealed that they have never encountered. They put pre-clinical faculty as the greatest source of mistreatment. Siller ²⁵ conducted the study about the occurrence of mistreatment experience in several groups. His aim was to see if there is any gender difference related to the topic and he revealed males reported more physical mistreatment than female and on the other hand females got gender-based mistreatment than males.

In the study done in US showed that medical students who perceived mistreatment by their superiors were more sensitive²⁷ .

In Pakistan there was a cross-sectional survey done in 232 students of whom 66.2% responded. 62.5% were mistreated, of those 69.7% were males and 54.9% were females²⁸ .

In Nigerian medical school, Oku et al (2014) verbal abuse was the most common form of mistreatment which is 57%. Miller describes: medical students described as they live in fear, afraid to make mistake, to forget a fact, to appear stupid in front of students and seniors, or even to harm patients by their ignorance ²⁹ .

Furthermore, in a national survey conducted Canada in 2017, final year medical students 59.6% were mistreated. Which makes the working atmosphere bad and creates stress and discomfort, which also curtails performance ^{31,32, 33}. Frank et al. identified those who are mistreated in public were do not complete assignments or give proper patient care, emotional, social responsibility and health problem. In a similar study in Nigeria found anxiety, afraid of instructors, and decreased in self-confidence as the result of verbal abuse²⁷ . On the other hand, there are some studies support some stress and anxiety are helpful for learning²³.

Even if the prevalence of mistreatment is huge only a third of the individuals reported to the appropriate bodies³⁴ .

One of the reasons for medical students' mistreatment is the low position of students from the huge hierarchical level from the practice ³⁵. The other reason is lack of formal teaching skill for the medical educators³⁷. Although different approaches have been used to intervene medical student mistreatment in medical colleges, there are very limited success stories. It is categorized as either individual-focused or organization-focused strategy but the types are remedial, corrective, structural, or procedural.^{38, 39, 40} Fried et al ³³-decrease mistreatment through educational programs which increasing awareness and recognition of negative behaviors and also can be decreased if more people aware about it, know how to recognize it, and be more real in their responses to it. The main limitation in the management of mistreatment in individual is that little attention is given the working group, organization, or reinforcement ⁴¹.

2.3 Theoretical framework

Sociocultural theory grew from the work of influential psychologist Lev Vygotsky. According to Vygotsky, learning has its basis in interacting with other people. The major idea of Vygotsky's theoretical framework is the social interaction plays an important role in the development of cognition. ⁷ Vygotsky felt that "one's interactions with the environment contribute to success in learning". He focused on the relationship between learning and development. The connection to pedagogy lies within the relationship between the student and the teacher, which is based upon the ability of the teacher to match instructional strategies to the developmental capabilities of students. ^{5 8}

The roots of sociocultural approaches are found in Vygotsky's (1978) work and whilst we recognize this is not a unified theory without contentions, there is a shared understanding of development as shaped by the contexts in which individuals are based, and the social and interactional relations that exist between them. More recently it has been argued that sociocultural theory not only provides a mechanism for understanding cognitive development in interaction, but also social and emotional learning through shared cultural school spaces with peers and teachers (Morcom, 2015).

The American Psychological Association's Learner-centered principles ⁸ Stated about social interactions on individual learners: "in interactive and collaborative instructional contexts,

individuals have an opportunity for perspective taking and reflective thinking that may lead to higher levels of cognitive social and moral development, as well as self- esteem.”

This study adapted a theoretical framework that encompasses on the learning and sociocultural theory of Vygotsky and the framework suggested by the Centers for Disease Control and Prevention (CDC) for research on violence.

As noted above, review of the literature shows that the major types of students’ mistreatment which could be verbal and non verbal such as shouting or yelled, publicly humiliation or belittlement, sexual harassment, assigning tasks for punishment rather than for the educational value, giving someone take credit for one’s work, threatening with an unfair grade - threat to fail or give a low mark, physical harm – e.g., slapping, pushing etc. can have a direct negative impact in the following ways.

In this study context, therefore, the effect or impact pathways through which mistreatment might affect student’s psychological, social, emotional and education performance is depicted below in Figure 1. Various types of mistreatment could be happened to students at different level of frequency, despite its form and nature, mistreatment actions either from the university staff, hospital staff or other outsiders like patients, could cause trauma or stress that affect students’ psychological, social & education performance. Beyond this, in clinical settings, mistreatment can have long-term effects on student’s carrier as a doctor – with compromised professional value, poor team player, less quality of care, enthusiasm or motivation, and patient safety.

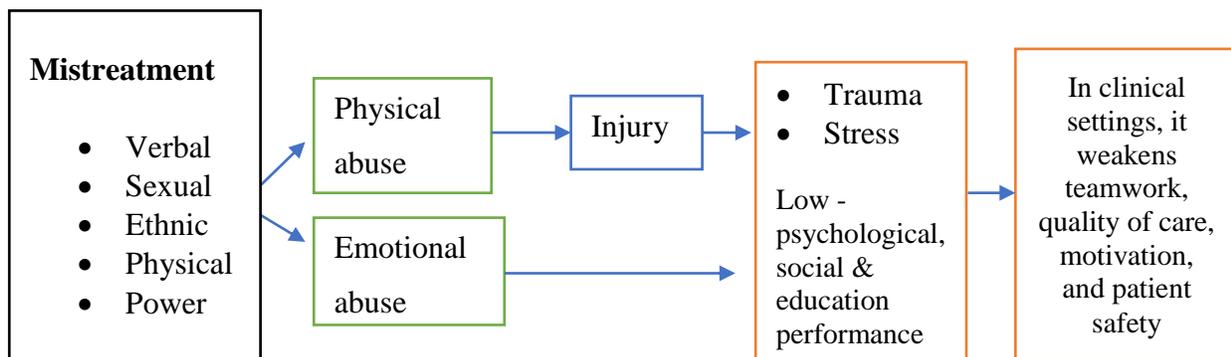


Figure 1: Diagrammatic scheme of theoretical framework of student’s mistreatment and its effect

2.4 Research questions

The research questions of this study are:

1. What are the types of mistreatment most medical students face in SPHMMC?
2. Who are mistreating students? Or which professional category of person committed mistreatment?
3. What are the reasons for mistreatment?
4. What motivates them to mistreat, from students' perspective?
5. Does mistreatment has effect on students psychological or behavioral state?
6. What recommendations can be made how to eliminate or reduce mistreatment practices?

3. RESEARCH METHODOLOGY

This chapter presents a brief description of the study area and discusses the sources and methods of data collection as well as the empirical model employed for data analysis.

3.1 Description of the Study Area

The study was conducted in St. Paul Hospital Millennium Medical College, found in Addis Ababa, Ethiopia. According to information from Central Statistical Agency (CSA) of Ethiopia, the hospital serves for medical specialty to an estimated number of 110,000 people annually who are referred from all over the country with its own NICU and OBS-GNY department. St. Paul Hospital Millennium Medical College is a referral hospital in Addis Ababa. The hospital is among the largest teaching hospital in the country. It was built by the Emperor Haile Selassie in 1961, with the help of the German Evangelical Church. The hospital was established to serve the economically under privileged population, providing services free of charge to about 75% of its

patients. In 2007, it became a medical college and its core services include the provision of medical care, teaching and research.

3.2 Research design and method of the study

A combination of qualitative and quantitative research methods was employed in this study. A complete understanding of the complexities involved in the mistreatment kind of studies can only be achieved by mixing methods, such as surveys, qualitative interviews ^{4 3}. Hence, key informant interviews and questionnaire surveys were used to collect primary data. Secondary data were also collected from the Central Statistical Authority (CSA), other related studies, reports from ministry of health, St. Paul's hospital etc. Structured questionnaire and interview checklist (see Appendix)

3.2.1 Quantitative method

The quantitative research relies on field data collected using structured questionnaire that included questions on types, sources, reasons and effects of medical students' mistreatment. Besides, basic information on demographic situation of survey respondents was collected.

To mention few points as to why Likert scale is used in this paper, when a study focusses on measuring persons attitude asking binary (Yes, No) questions produces inefficient result. As a result, testing the extent of the respondent level of agreement or disagreement with a specific question become difficult. To alleviate this problem and produce relevant outcomes, the most widely used qualitative response measuring tool, Likert scale is employed. Its well understood that a particular study can not be effective without a well-designed data collection tools such as survey questionnaire. Likewise, in this paper studying the literature and education theory, and local knowledge on the problem being studied, we developed a survey questionnaire and interview checklist. ^{4 7}

3.2.2. Qualitative method

The qualitative research method was also employed in this study. Information is attained through interviews by using a face-to-face, individual interview of senior doctors and intern medical students attending courses in the same status/year and institution.

The discussion was undertaken to collect information from relevant bodies involved on student teaching learning and practical implementation of the role clinical practices by using open ended questions. Useful information was gathered as a number of issues were raised from participants. The Key informant interview offered opportunity to capture case stories. Also, it can help to deepen the analysis through triangulation ^{4 9} of information collected using quantitative method.

3.3 Sampling Techniques and Sample Size

Sampling Techniques

The study population of this paper was intern medical students attending at SPHMMC. Census method was used to draw observation units. All of the total of 111 medical intern students, currently enrolled in the school, were asked to answer the survey questioner, then 101 students were responded and included in this study. This method provides all intern medical students to have equal chance to be selected as a sample. Male and female students' participation was also considered through the process.

Two key informant interviewees were selected from senior doctors purposively considering the persons' experience and first-hand knowledge about a study topic and six intern student representatives from different departments were selected and interviewed. The interviews were well structured in such a way that provide considerable ideas relevant to the study.

3.4 Inclusion and Exclusion Criteria:

Inclusion Criteria:

- Respondents who are studying in SPHMMC.
- Medical intern students.
- Those who can give informed consent.

Exclusion Criteria:

- Respondents other than SPHMMC.
- Medical students from other years
- Those who did not give consent
- Refuse to give consent

3.5 Data collection

The survey questionnaire was designed to collect information about the learned mistreatment which experienced by medical students throughout their course and it also the source of mistreatment. The variable which observed are yelling; humiliation; assigned duty for punishment rather than for educational purpose; give value for other person for someone's effort; physical injury like kicking, pushing and giving unfair grade and also sexual harassment and ethnic discrimination were also included.

For all variable subjects were requested to express the perception of their mistreatment experience with the item of never and experiencing with scales like rarely indicated that they experienced one or two times; sometimes which means three or four times; often which means five or more. And also, the questionnaire covered the source of mistreatment for example professors, residents, hospital staffs, etc. The subjects also requested to express how this mistreatments bothered them if they experienced.

qualitative data were collected through semi structured interview from a total of eight persons; six medical intern students and two senior doctors which lasted 30–45-minute per individual.

Students' interviews were conducted in the morning meeting room during their lunch time. The subjects were interviewed independently by using eight open ended questionnaires. They were asked to express their knowledge of mistreatment, reason of mistreatment, their mistreatment reporting practice and finally their recommendation and comments about this issue. All interviews were audio recorded. This helped me to substantiate the quantitative analysis and probes questions that the survey questioner missed to capture.

All types of data collection were managed by the researcher. Respondents' were given brief introduction to the objectives of the study. The questionnaire was pre-tested and refined on the basis of the feedback obtained from the pre-test (See the questionnaire in *Appendix I*).

3.6 Data analysis

The quantitative data were analyzed using software SPSS version 23. Appropriate techniques and procedures were used in the analysis and to address the objectives set forth in the present study. Texts, tables, and graphs are used to present the results. The data word processing and open code were used in the analysis. Several descriptive summary statistics (such as mean, standard deviation, minimum and maximum values, percentages, frequencies and cross tabulation) were computed and results of gender-disaggregated information are presented, summarized and explained on students' mistreatment. In addition, independent samples T-test was used for the purpose.

The qualitative data were collected by using one to one interview, which is analyzed using narrative and content analysis. MS-excel was employed. This method involved the summarization and reformulation of relevant stories collected from sample interviews.

The recorded discussion was transcribed, content analysis of the data were performed in related to the explanation of the content analysis finally, the codes were recognized and grouped into six themes (table 6). Traditional medical education, frightening learning environment, Sexual harassment in position of power, unfavourable learning environment with working staffs, positive impact to medical education, and Action taken to improve.

3.7 Ethical Considerations

The researcher received official permit from School of Medicine IRB, College of Health Sciences, SPHMMC prior to the initiation of the study. Quantitative survey respondents and qualitative survey informants were provided detail explanation on the overall objective of the study ahead of time. Interview is administered on free will of interviewees. Respondents were informed that they can decline if they don't want to be interviewed. Information provided by interviewees will not transfer to a third party or will not be used for any other purpose.

4. RESULTS

This chapter presents the results of the study. Characteristics of survey respondent's Quantitative data is collected and analyzed on demographic and social characteristics of survey respondents. Respondents are asked about their age, marital status, and their religious affiliations and family occupation background. Also, the results of the analysis on the prevalence, types and the reason of mistreatments among intern medical students is provided. Most importantly, qualitative analysis of data from key informant interviews is presented and discussed.

4.1 Demographic Characteristics of Survey Respondents

Table 3 presents a summary of the demographic characteristics of the respondents. The analysis of data regarding age of sample students showed an average of students was 25 years with a standard deviation of 2.9. This indicates that majority of students are young and productive (Table 3). The T-test analysis in age between these groups is not statistically significant.

Data collected on sex of respondents showed that 31 (30%) of the respondents were female and the remaining 70(70%) were male medical intern students. Hence, the study covers good representation of both sex groups and relevant to provide information on potential gender differences in the perceptions of mistreatment. With regards to religious affiliation, about half of the respondents are followers of Orthodox Christianity. This was followed by Muslim 21(20%) and Protestant Christianity 16(16%).

Table 1: Summary of sample students' characteristics (n=101)

Variable		Mean	SD
Student age (years)		25.4	2.9
		Frequency	Percent
Sex of Student	Female	31	30.7
	Male	70	69.3
Religion	Orthodox	51	50.51
	Muslim	21	20.77
	Protestant	16	15.86
	Catholic	3	2.73
	Other	10	10.1

Source: Survey data, 2020

4.2 Types of mistreatments

To understand the perceptions and degree of intern medical students towards incidence of mistreatments, Likert Scale (4-point scale) was used. Hence, level and perception measuring statements were developed and asked to all sample respondents. The response for each question was coded with numbers (e.g., 1 = never, 2 = rarely, 3 = sometimes, and 4 = often). Finally, by summing up the value of each statement, and divided by the number of sentences were taken as the mean value of the respondent.

Reliability analysis was undertaken for all statements to see the degree of scale reliability of each attitude towards prevalence, types, sources, reasons and effect of mistreatment. The Cronbach's alpha (α) level of all statements is 0.861, which suggests the high level of reliability of internal consistency to analyze respondents' perceptions.

Mistreatment includes yelling or shouting, physical injury, sexual harassment¹, and any kind of discrimination of medical students should be considered cautiously and if happened better to address immediately and professionally.

Needless to say, conducting such type of perception and occurrence measuring research needs careful research design, sampling, data collection approach and analysis, which this study managed it well. From the beginning, it was important to get sample students have similar understanding of the subject under investigation – that is mistreatment. What does it mean? or referring to? This is very important that respondents can have different definition to it. For example, shouting loud and asking questions which was humiliation or intimidating to one student could be welcomed by another. Students who felt mistreated often were told by their classmates that they are too sensitive.

Thus, before undertaking an interview and survey, the paper carefully considered all these into considerations and cleared out potential problem of biases in misperception of the same. The findings of this study provide useful evidence and answers the research questions.

The study shows that medical students face different types of mistreatment challenges. Figure 2 indicates that the perceived – prevalence and extent of mistreatments. Collapsing the Likert scale

¹ In this paper, sexual harassment is defined as unwanted sexual awareness that is offensive and troublesome.

data into binary form, i.e., like present or never experienced, could give a valuable insight regarding students' perception of mistreatment. Accordingly, the result shows that the most prevalent form of mistreatment experienced by students was yelling or shouting (87%) this includes offensive, harsh, or insulting speech to the students. This was followed by giving negative or disparaging remarks (82%) and threat with unfair grade (76%). The overall Likert scale analysis on the level (extent) of mistreatment indicate that of the total 87% reported to affirmative for yelling or shouting type of mistreatments, 38%, 29%, and 21% are to the extent of often, sometimes and rarely, respectively. Likewise, 21% and 37% of students are found to be mistreated to a large extent – often and sometimes, respectively, with unfair grades. But the gender disaggregated analysis of sexual harassment results shows that only females (99%) were abusive of this. The least form of mistreatment was threatening with physical harm (<1%).

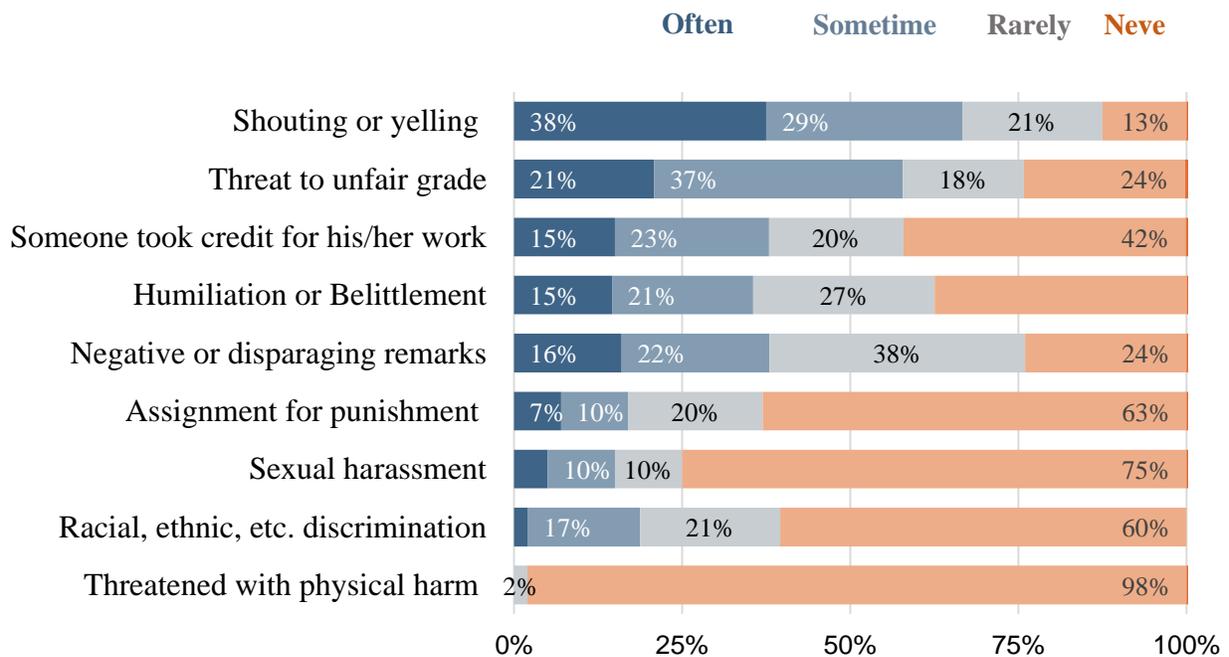


Figure 2:Types of mistreatment students face

Types of prevalence of mistreatment - by gender .

Subsequent to knowing the types of mistreatments students are facing in the compass, one query might come to the mind - the curiosity of knowing the if mistreatments vary by sex of students. Thus, I split the data by participant's sex and tests in order to see if there is statistical difference in reports of types and incidence of mistreatment between them. Interesting outcomes are observed and discussed in the subsequent section.

Table 3 depicts a composite score (dichotomized Likert scale values) for the sample medical students. As noted earlier, the responses were categorized into two (i.e., never experienced mistreatment and experienced – at any level of frequency). Interestingly results of the analysis of the survey revealed the difference in exposures to different types of mistreatments (Table 4). This agreed with the prior hypothesis of this study and other similar reports.

Male students 69(97%) were more experienced yelling than female 19(61%), with a ($\chi^2(1) = 10.7, p = .001$). Males students were significantly often faced some sort of humiliation or threat with unfair grade than were female students ($p < 0.05$).

Gender based mistreatment varies widely for both males and females. Female students expressed they are more vulnerable for gender-based harassment than males. More precisely, notable proportion of females 25(81%) than males (0%) reported having experienced sexual harassment ($\chi^2(1) = 79.0; p = 0.000$).

Other types of mistreatment such as assignment for punishment, threatening with physical harm and race and ethnicity base discrimination were evidenced to be statistically insignificant by sex of students.

Table 2: Gender difference in perceived prevalence of different types of mistreatment

Types of mistreatment	Female		Male		χ^2 (1)	P-value	Total	
	n	%	N	%			N	%
Shouting or yelling	19	61	69	97	10.7***	0.001	88	87
Humiliation or Belittlement	11	35	50	66	4.1**	0.045	63	62
Assignment for punishment	12	39	26	36	1.10	0.294	37	37
Someone took credit for his/her work	15	48	48	63	2.9*	0.089	59	58
Threat to unfair grade	20	65	58	81	4.3**	0.037	77	76
Threatened with physical harm	0	0	21	3	1.36	0.242	20	2
Sexual harassment	25	81	0	0	79.0***	0.000	25	25
Negative or disparaging remarks	22	71	62	87	12.2***	0.000	83	82
Racial, ethnic, etc. discrimination	11	35	29	41	0.5	0.459	40	40

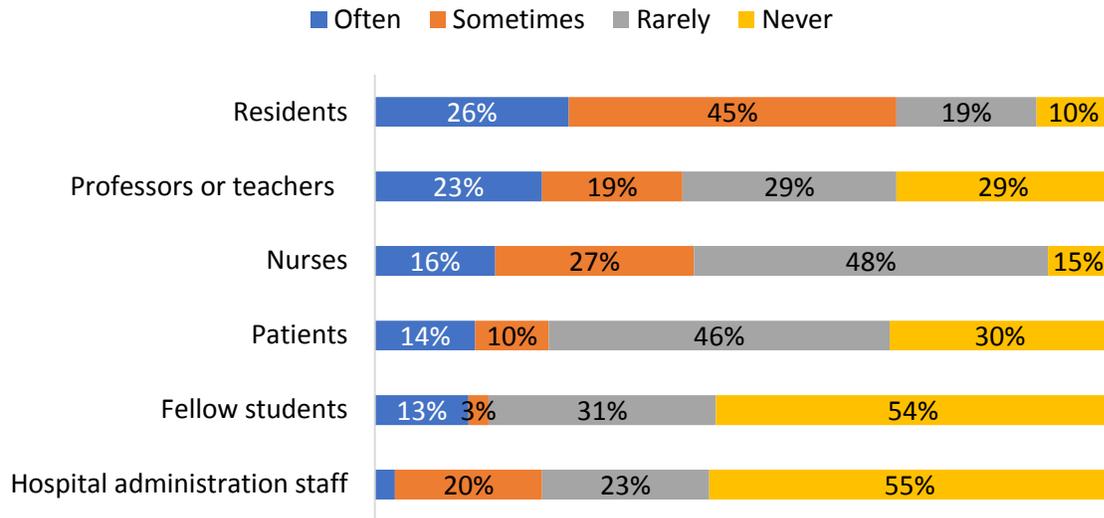
Source: Survey data, 2020

Note: *** significance at 1%, ** at 5% and * at 10%

4.3 Sources of mistreatment

Figure 3 presents results of Likert scale analysis of data on source of mistreatment. Overall, the majority of participants reported that residents (90%), nurses (85%), and professors (70%) are foremost sources of mistreatment in the university, in that order. Regarding the degree of source of mistreatment, residents are reported to often (26%) and sometimes (45%) cause mistreatments. About 16% of students reported to often experience mistreatment from nurses and those stated rarely by nurses are about half (48%) of sample respondents.

Figure 1: Sources of mistreatment



Sources of mistreatment- by Gender

Another noteworthy finding of this study is sources of mistreatment and gender disaggregated analysis of Likert scale data. The study confirmed that the source of mistreatment is not very much gender sensitive. As depicted in Table 3, the rank on source of mistreatment are somehow similar, in top two sources of mistreatment sources - residents and nurses, by both sexes. The third most important source of mistreatment for male and female students are found to be different and reported to be professors and patients, respectively (Table 3).

Nurses are reported to mistreat female students significantly more frequently than males ($\chi^2(1) = 4.7805; p = .029$). Conversely, males are experienced some level of mistreatment from their colleagues or fellow students, while this was least apprehension for females, according to literatures, this is not desirable from the point of team-work and professional ethics of studentship. From our qualitative responses, majority of interviewees are also confirmed that fellow students sometimes provide non-constructive or non-corrective criticisms to their associates and deed some kind of malicious gossips, which reported to hurt the psychology of mistreated student, and one can consider this as serious violation of students' code of contact.

Overall, many of sources of mistreatment such as professors, residents, patients, and hospital administration staff didn't differ between female and male students, with a p- value higher than 0.10.

Table 3:Sources of Mistreatment: by gender

Source of mistreatment	Female		Male		χ^2 (1)	P-value	Total	
	N	%	N	%			N	%
Professors or teachers	21	68	50	71	0.13	0.708	69	70
Fellow students	10.9	35	37	53	2.60*	0.07	48	48
Residents	28	90	64	91	0.01	0.96	89	90
Nurses	30	97	56	80	4.78**	0.029	84	85
Patients	23	74	50	67	0.50	0.479	68	69
Hospital admin staff	10	32	31	44	1.28	0.256	41	41

Source: Survey data, 2020

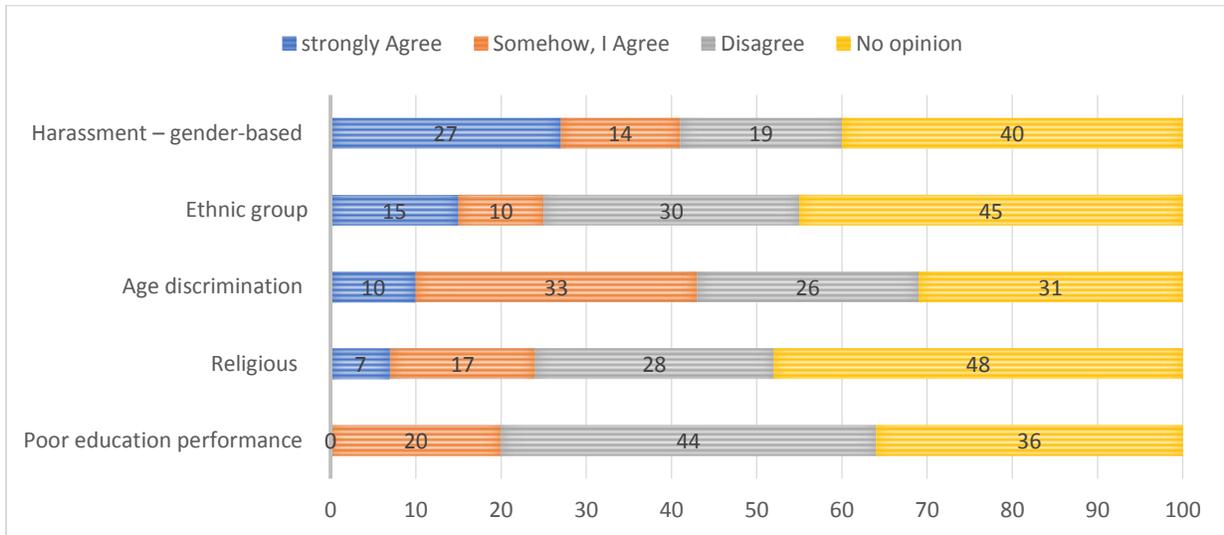
Note: *** significance at 1%, ** at 5% and * at 10%

4.4 Reasons for mistreatment

Results of the analysis of reasons for mistreatment is mixed. Notable proportion of students has reported “no opinion” about it. About 60% of the respondents agree with reason for mistreatment was found to be gender based. Likewise, Age and ethnic group differences are also perceived as a good reason for source of mistreatment. Analysis of the extent of students’ perception with reported reasons indicated that about 30% and 15% of students are strongly agree that mistreatment is because of sex of the student and ethnic group differences, respectively. On the contrary, notable proportion of students also report their disagreement with stated reasons. For instance, about 44% and 28% of the respondents strongly pointed out their disagreement with the statement that mistreatment is because of poor education performance and religion differences, respectively. Also, many strongly agreed that ethnic group can be attributed to mistreatment,

30% of students disagree with this. Most of sample students has firmly agreed and thought that sexual harassment is female students matter and not associated with male students' reason for mistreatment (Figure 4).

Figure 2: Reasons for mistreatment (percentage response)



Reasons for mistreatment- by gender

Table 4 presents gender differences on reasons of mistreatment. Majority of female students perceived a bigger reason for mistreatment is low level of education performance and gender-related motives than male students. This means a big majority of the female respondents reported sex related mistreatments as main reason for mistreatment than male students. The chi square analysis of gender difference also found to be statistically significant at less than 10% ($P < 0.10$). Male students reported ethnicity as a reason for mistreatment. Statistical test by gender shows significant differences at less than 5%. With regard to other reasons such as religion and age of a student, no significant gender differences were found.

Table 4: Reasons for mistreatment: by gender

Reason for mistreatment	Female	Male	χ^2 (1)	P-value	Total
	(n=31)	(n=70)			(n=101)
	%	%			%
Ethnic group	45	67	4.2**	0.04	60
Religious	55	70	2.2	0.137	65
Age discrimination	55	69	1.7	0.185	64
Harassment	90	0	6.6***	0.000	55
Poor education performance	78	50	2.3	0.188	62

Source: Survey data, 2020

Note: *** significance at 1%, and ** at 5%

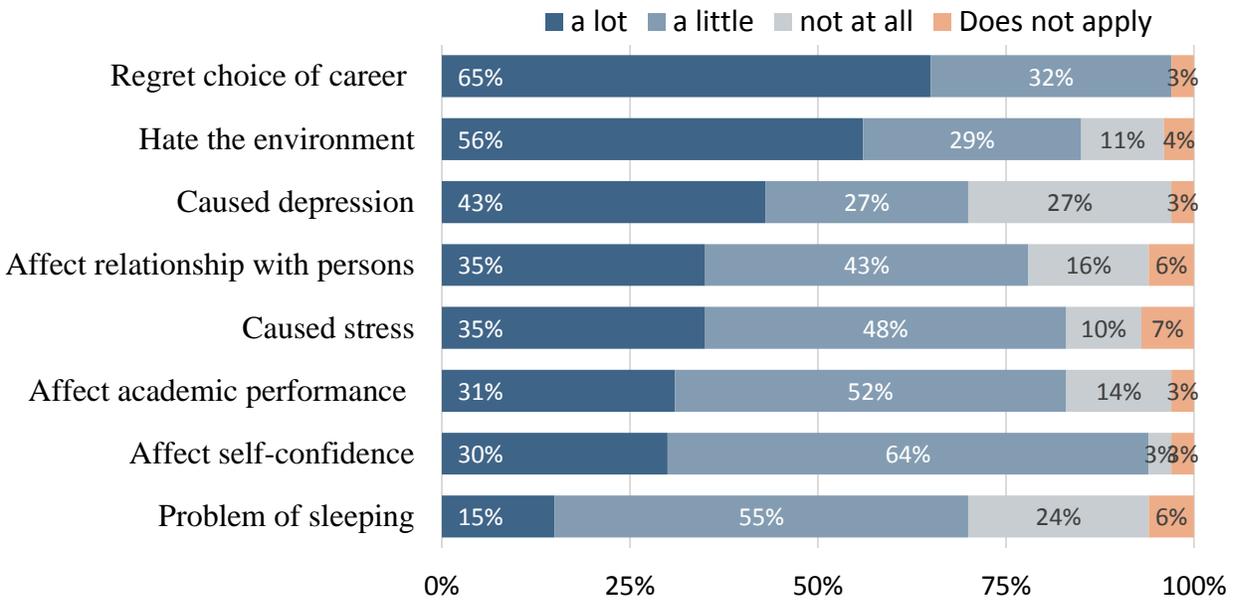
As triangulation of responses was very important to come up with strong evidence, interestingly, the reasons for mistreatments was pointed out by senior doctors during our discussion in an in-depth interview with them. They confirmed the fact that they also felt that “*few residents and consultants mistreated interns, but not for nothing, it is often during consultation or when they are not competent students. We believe that It has a positive impact to perform well.*” Suggesting that the perceptions of senior doctors towards the said mistreatment of medical intern students in the teaching process was reported to be from the point of motivation and feedback provision. Put together both side reflections, this study find evidence that the pervasive opinion of doctors - ‘*some*’ *mistreatment is imperative for education*’ seems creating an ongoing and dangerous problem on students’ social and psychological conditions.

4.5 Effect of mistreatment

Mistreatment may result stress, depression kind of symptoms, marginalization, and ‘moral distress’ etc., among medical students). Long time ago, Morton et al. (1996) stated that the ‘*The dilemmas faced by medical students [are] how to survive in a threatening environment, how to please authority figures, ... and how to avoid humiliation.*’ Such thoughts are not easy to students. Though this is the general fact, the result obtained from the survey confirms the presence of mistreatment with significant adverse effects on students^{4 4} .

Figure 5 presents the results of the effect of mistreatment on medical students. Mistreatment has a significant effect on medical students. Sufferers of mistreatment are at risk of psychological and behavioral problems, to the extent of regretting their choice of careers, hating the school/health environment, suffer from depression, and stress etc. In clinical settings, mistreatment also undermines teamwork, quality of care, and patient safety. A large majority (more than 90%) reported a lot of serious negative effect of mistreatment and very few proportions of students reported lesser or no effect at all. Briefly, the analysis of Likert scale data shows 97% of students to regret choice of career, of these about 65% are to a larger extent and 32% to small extent. Similarly, the second main effect of mistreatment stated by students was hating the health and school environment with about 56% a lot and 29% a little degree. Overall, the results of various studies are consistent with these findings. Medical students who experience mistreatment might have cynicism and a destruction of humanistic values.

Figure 3: Effect of mistreatment



Effect of mistreatment- by gender

In most socio-economic studies, gender disparities often favor males in access to and utilization of resource. When it comes to the effect of mistreatment of medical students, there observed male students are more affected by mistreatment actions (Table 5). Most perceived unfavorable outcomes of mistreatment such as regret in choice carrier, hating the health environment and loosing self-confidence as well as stress were reported to distress a lot for male than female students. The statistical test evidenced significant gender differences (all $P > 0.10$).

Table 5: Effect of mistreatment- by gender

Effects	Female	Male	χ^2	P-value	Total
	(n=31)	(n=70)			(n=101)
	%	%			%
Caused stress	74	89	3.4*	0.062	84%
Hate the environment	55	91	16.1***	0.001	79%
Affect self-confidence	84	95	3.5**	0.04	92
Caused depression	61	72	1.08	0.298	68
Affect academic performance	32	86	27.8***	0.000	68
Problem of sleeping	71	75	0.17	0.676	74
Regret choice of career	84	98	10.8***	0.001	95
Affect the teamwork	74	83	0.96	0.325	80

Source: Survey data, 2020

Note: *** significance at 1%, ** at 5% and * at 10%

Moreover, we noted that mistreatment in both sexes substantially leads students to have lose confidence amongst health-care team members, which impends short- and long-term effect on the quality of health care and patient safety and future success as physicians

4.6 summary of qualitative result

As noted earlier, With the aim of substantiating the findings of survey, well organized in-depth interviews were conducted with both students and senior doctors.

Themes identified in medical students' recorded discussions during interview, with quotations.

Table 6. Summary of the findings of the semi-structured interview are presented in table 6

Summary themes	Summary of responses
1. Traditional medical education	<ul style="list-style-type: none"> ✓ “They consider it as the norm for every student to pass through. I was mistreated by residents, yelling in front of patients for trivial mistakes. I was very devastated and demoralized and I feel bad about my choice of study”. ✓ “Mistreatment among medical students is very common, mostly students encounter one kind of mistreatments by residents and nurses, which has psychological impact on future carrier of the individual as well as motivation about their profession. Most of the teacher did that because of lack of medical education.
2. Frightening learning environment	<ul style="list-style-type: none"> ✓ “One of my teachers gave me the least mark because he saw me in a cafeteria, and he was assigning me for difficult and busy tasks, asking so many questions during ward round”
3. Sexual harassment in position of power	<ul style="list-style-type: none"> ✓ Most of female students claimed that they face sexual harassment from residents
4. Unfavorable learning environment with working staffs	<ul style="list-style-type: none"> ✓ “I was mistreated by nurses, specialists and even by supporting staffs like porters and cleaners which added stress on top of the intern work load”. ✓ “most of the nurses disrespect us and they want us to do their job as well”
5. Positive impact to medical education	<ul style="list-style-type: none"> ✓ one senior doctor said “Some seniors mistreated interns particularly during consultation or when they are not competent students .it has a positive impact to perform well”.
6. Action taken to improve	<ul style="list-style-type: none"> ✓ All of them did not know to whom they report or fear of their

evaluation to be affected.

- ✓ “I didn’t report it as i wanted to graduate. If I reported, they are all friends and colleagues, so not only to whom I report but also the other teacher would develop negative impression on me”

Overall, majority of intern interviewees indicated that they had suffered some level of different types emotional and verbal mistreatment during their study period. Overall, data analysis revealed the most common mistreatment type among the students was that yelling or shouting. This was followed by sexual harassment kind of abuse, but often on female students at the school. This means that students are suffering from difficulties that arise from the abusers’ unprofessional action and poor communication.

All of female interviewee mentioned that they often encounter sexual harassment by residents, which has some serious psychological impact on their future career as an individual as well as on motivation about their profession.

Analysis of data from qualitative sources also confirmed similar result with the quantitative finding about source of mistreatment. Specifically, one male student reported residents doesn’t mistreat females as often as males:

“I was mistreated by residents. They often yelling in front of patients for trivial mistakes and they consider it as the norm for every student to pass through. As to me, females are always favored by residents.”

Likewise, female respondents reported to agree with the above statement; and said this “*Yet, we usually mistreated by residents and nurses, but females are relatively more favored.*”

About the reason for mistreatment, one senior doctor said that” while I was a medical intern, “*I was mistreated by nurses, specialists, and even by supporting staffs like porters, which added stress on top of the intern workload.*” He believes that motivation behind all these mistreatments doing could be because of lack of medical education.

Lastly, in response to a question regarding the what measure are they taking or if they report to somebody, all of the interviewee reported that *they didn't know to whom they report to. Also, they find it uneasy in fear of their evaluation to be affected.*

5. DISCUSSION

Mistreatment among medical students can be seen as an international issue that has been recognized by quite a lot of studies worldwide – in every continent. This study revealed that student's perception to experiencing various types of mistreatment. The result indicate that mistreatment occurs, varying in the level and types of manifestation. The most prevalent ones were verbal abuse - yelling or shouting, which is saying words unnecessarily very loudly, shows the abuser losing temper or to deliberately signify a student that he/she is angry of his/her deeds. Other types of mistreatments were identified as lack of giving proper credit and treating with unfair grade to their work. The result is in line with the findings of ^{5 1, 5 2, 26} .

Likewise, as expected, sexual harassment is another type of abuse reported by female intern medical students. Various similar studies regarding to sexual abuse among students in different countries reported quite comparable results. Study conducted in German^{5 3}, in Dutch^{5 4} , in California³⁸ , in Nigerian medical school ²⁶ have found that female medical students to suffer from sexual harassment. Overall, this study offers important insights about typology of mistreatments that intern medical students faced. Besides, whilst the finding is not surprising, the study illustrates that the presence of gender difference in prevalence of mistreatments. Overall, these can be of relevant evidence to help the university tackle the mistreatment problems.

Though it is well understood by all that academic environment shall be devoid of mistreatments of any type such as psychological abuse or intimidation, sample intern medical students reported to be mistreated – by residents, nurses and sometimes by professors. Overall, mistreatment was committed by school staff. This finding is in line with another study ¹. In this paper, an attempt was made to triangulate why students indicated teachers as source of mistreatment and check if teachers comprehend the matter. Thus, from our in-depth interview, teachers reported that mistreatment activities are not very much realized and what students perceived is something

unavoidable and part of education system. In other words, teachers admitted to slightly force students to do things right – that they believe help them gain proper knowledge and skills that have long lasting positive effect. In various studies, there reported to have times in a student's life when mentors yell at them. Often, they say yelling is for their benefit, to help them go in the right direction of professional growth or to tinning their attention to hard work and perform professionally. This indicates the presence of misunderstanding by both parties in what mistreatment is all about. Educator-student relationships have mostly related to the students' emotional, behavioral and cognitive consequences^{5 5} thus, maintaining positive and fruitful relationships could help them to love their school, profession, and well-being. Since the current paper confirmed that high prevalence of mistreatment committed by educator (including nurses) (not outsiders), the school management can think of devising some mechanism to reduce and abolish student mistreatment that are restricted to the university and hospital guideline.

While better treatment among students and healthy school system contribute to students' better psychological, social, emotional and education performance, mistreatment may have unfavorable outcomes on the same^{5 6 5 7}. This study found evidence that sufferers of mistreatment have felt to a large extent a sense of regretting their choice of careers, disliking the school and overall health environment. Also, few reported to suffer from depression, and some level of stress. This indicates students' moral or mental health is underestimated, that can cause adverse effects on their learning. The result in this study is in agreement with other studies²³ that reports over 33% of students have well-thought-out dropping out, and 25% would have preferred a different profession other than being a doctor, had they known earlier about the level of the exploitation they would experience. In this sense, conducting in-depth assessment to share their experiences, would be more vital to address the negative effect of mistreatment and to protect future students.

6. SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

The study was carried out with the objectives of examining the prevalence of mistreatment among medical students. Also, the types, sources, reasons and effect of mistreatment were examined. For this purpose, investigation of students' demographic characteristics and data on mistreatment and its effect were collected.

This study made use of both primary and secondary data collected by the researcher. To collect survey data a census method was implemented. Likewise, interview was administered using well developed check list of interview guide. The collected data were presented, organized and discussed using descriptive statistics analysis. To analyze the data, SPSS software was used.

Analysis of the Likert scale data on perception of mistreatment revealed that intern medical students face different types of mistreatment challenges mainly related to yelling and shouting includes offensive, harsh, or insulting speech and threats sexual harassment, particularly to females, and humiliation. The most common one for females were sexual harassment while yelling was common on males.

Overall, the majority of participants reported that nurses and residents are foremost source of mistreatment. Overall females were reported to be better treated by senior doctors than males. However, the university seem not to encourage students to report the same.

Regarding to the effect of mistreatment, the subjects requested to express the degree or extent of the mistreatment affected them. They reported that mistreatment has a significant adverse effect on them. They specifically found to sufferer from psychological and behavioral problems to the extent that they are regretting their choice of careers, hating the school/health environment, suffer from depression, and stress etc. In medical settings, mistreatment also undermines teamwork, quality of care, and patient safety. This is particularly sensitive to countries like Ethiopia where doctor to population ratio is low.

Lastly, the study identified that senior doctors acknowledged the problem, but without sense of regretting. This means there is a mix-up in the line of mistreatment and sub-optimal teaching. They believe that such deeds are relevant from the point of education and training of students. Of course, it is not surprising as many students reported to be afraid of reporting mistreatment to the relevant body, though they don't know to whom they should make it.

6.2 Conclusion and Recommendations

The result of this study, as discussed in the foregoing parts of this study underlines that the presence of mistreatment. The most important ones are yelling and sexual harassment.

The reason to be mistreated according to the students is not clear and is complex. However, from the senior doctors' point of view, it is to strengthen them and to make them competent. Consequently, this study undoubtedly agrees the presence of misunderstanding between mistreatment from a sub-optimal teaching-learning environment. While the results based on the descriptive quantitative and qualitative method, the analyses of data are broadly consistent with what has previously been reported in some studies, they do yield a number of interesting findings that will presumably be valuable to policy makers around medical schools. First, the study confirms that mistreatment is serious problems in the university. Second, the nature and the magnitude of the perception of mistreatment between male and female somehow differs according to few indicators selected. However, in general, results have demonstrated the importance of some intervention and discussion among school community. More importantly, addressing mistreatment per se is likely to lead to improvements in the health care service provision and students' professional development.

The main recommendations that emanate from the results of this study are:

- Inclusion of specific mistreatment handling courses could be important so that students can broaden their mind and will most likely to reduce the occurrence and effect of stress, depression, pressure etc.

- Sticking to the findings of the study that confirmed the absence of well-organized office to report cases. Thus, for the purpose of sustained positive environment among medical staff establishing professionalism or ethics Office could help students to report issues.
- Reducing the rate of student mistreatment shall be a priority to the medical schools. Thus, putting some mechanism that can monitor and evaluate school faculty staff to what extent they consider the issue and inform staff to respect the laws and procedures in creating and maintaining healthier and professional workplace could be imperative.
- The teaching learning atmosphere shall be monitored properly in a way that can build a confident professional as the experienced behavior during learning in faculty which is constructive or damaging will have a great effect on students' future professional life. Thus, it is very important to bring the issue mistreatment and its effect among university community for discussion. This will help to reduce misunderstandings about mistreatment deeds
- What is more, given the low enforcement to professionalism standards and respect for learners, I recommend the administration of the university to encompass intern students during nurses and doctor's annual performance review and take the result in incentivization.
- Lastly, I strongly recommended that Medical education course should be part of the curriculum for all academician or a short course has to be provided, so that they will have an adequate skill and knowledge how to handle their students which will significantly reduce the mistreatment.

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Appendix

Questionnaire

Questionnaire code _____ Date of Survey: _____ Name of interviewer: _____

Introduction

Good morning/afternoon. My name is _____ and I collecting data for research purpose.

The aim of this research is to analyze the prevalence, types and the reason of mistreatments among intern medical students in St. Paul's Hospital Millennium Medical College (SPHMMC).

Dear Student, all the information gathered is confidential and will be used only for research. As your identity will not be revealed to any one, nobody will be able to identify you or use the information against you. However, your honest answer to these questions is very important for the purpose of the study.

Thank you in advance for your collaboration.

Section 1: Demographic and Socio-economic characteristics

- 1) Age _____
1. Sex: 1) Male 2) Female
2. What is your marital status? 1) single 2) married 3) widowed 4) divorced
3. Intern status in academics: 1) Intern this year 2) Have been intern since last year 3) other
4. Name of hospital where you work/study as an intern: _____

5. Resident before joining the university: 1) rural 2) urban
6. Family occupation: 1) Farmer 2) Merchant 3) Civil servant 4) Other
7. Religion: 1) Orthodox 2) Muslim 3) Protestant 4) Catholic 5) Other

Section 2: Types, sources, causes and effect of mistreatment

Type of Mistreatment encountered	Never	Rarely (1–2 times)	Sometimes (3–4 times)	Often (5 or more)
1. Shouted or yelled at				
2. Been publicly humiliated or belittlement				
3. Being assigned tasks for punishment rather than for the educational value				
4. Having someone take credit for the respondent's work				
5. Being threatened with an unfair grade - threat to fail or give a low mark				
6. Been threatened with physical harm – e.g., slapping, pushing etc				
7. Been physically harmed				
8. Sexual harassment				
9. Negative or disparaging remarks				
10. Racial, ethnic, etc. harassment or discrimination				
11. Sexual harassment				

Sources	Never	Rarely (1–2 times)	Sometimes (3–4 times)	Often (5 or more)
Professors or teachers				
Classmates – or fellow students				
Senior Doctors				
Nurses				
Patients				
Hospital administration staff				

Reasons for mistreatment	No opinion	Disagree	Somehow, I Agree	strongly Agree
Ethnic group				
Religious				
Age discrimination				
Harassment – gender-based				
Poor education performance				
Other _____				

Effect of mistreatment	Does not apply	not at all	a little	a lot
How much did mistreatments bother you?				
1) caused stress				

2) hate the environment				
3) affect self-confidence				
4) caused depression				
5) affect academic performance				
6) problem of sleeping				
7) regret choice of career				
8) affect the relationship with another person				
9) please provide your idea that you think to reduce and abolish intern student's mistreatment				

Thank you!

Interview guide for qualitative data

1. Think about your medical school, how were you treated? By preclinical faculty, clinical faculty, residents or interns, nurses, and patients
2. Did mistreatment or any humiliation have anything to do with the current level of profession? Or Was there any kind of mistreatment?
3. What factors could play a role in one's perception of mistreatment?
4. What motivates mistreaters to mistreat medical students?
5. How do these situations vary among medical students?
6. What determines whether or not you report these incidences? Do you believe the problem could be solved easily if they report?
7. What needs to change to make this better?