

# TSP Annual Journal

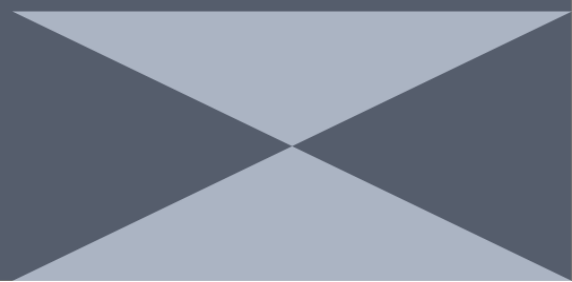
**Volume 1, 2020-2021**

**Edited by:**

Batol Hashimi and Mahboba Azizi



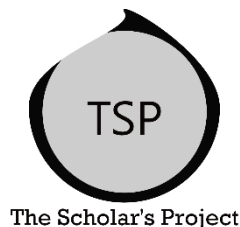
The Scholar's Project



To Enhance Research Knowledge among  
Afghan Youths Especially Young Professionals  
in the Fields of Social and Natural Sciences  
through Training and Mentorship.

Edited by:  
Batol Hashimi and Mahboba Azizi

**Patients and medical practitioners' safety**



**Designed by:**  
**OROD R&D department**

**Volume 1, 2020-2021**

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## **Preface**

The main purpose of this project is to increase the research knowledge among youths especially young professionals in the field of social and natural sciences on-the-work training and mentorship program. By providing professional and standard research training, for students and professional, OROD seeks to play its role to increase and create knowledge by enhancing the ability of Afghan youth specialty girls in the field of applied research and analytical ability.

As a developing country, there is lack of information sources and published articles in Afghanistan about almost every issue. Most of the time researchers and businesses in Afghanistan use secondary data sources from Pakistan, India, and Iran to do their research studies as these countries are similar to the context of Afghanistan. On the other hand, the number of researchers especially female researchers are very limited considering the need in Afghanistan. Specially females are encouraged to work in close environments and positions like teaching and medical fields without being encouraged to take part in writing papers, conducting researches, and creating knowledge.

Considering these circumstances, through The Scholars Project OROD plans to enhance the research skills of Afghan youth both male and female focusing more on young girls to enable them in understanding research and enables them to write academic papers. Certainly, to change a social behavior like gender inequality, we need to give girls and women the voice so they can raise their concerns through writing. Enabling young Afghan women to write scientific articles, and standard papers helps them to speak more in their voices and defend their positions. Publishing literature and papers on the social and natural science issues would help to reduce the impact of these harmful discourses among Afghan community.

Besides, the concept of applied research is new in the Afghanistan that contributes to the high rate of plagiarism among researchers, professional and students in Afghanistan, this has two main reasons, on the other hand; one the absence of a search engine to detect plagiarism and second lack of sense to produce knowledge rather than taking others' work product.

The project lives cyclical lasting one year that starts from month of August till end of July close up with The Scholar's Project Annual Journal which containing research papers. The project is especially designed to train and mentor young professional researcher in the field of social and natural science research through physical and online classes.

## **Editors' notes**

One of the essential communication tools is an academic writing that tool which enables girls and women to share their ideas more academically and professionally along with the confidence to raise their voices effectively. The project will train knowledge generators; it means the researchers will be able to write and communicate with their published papers targeting social inequalities problems in the community to address them. On the other hand, writing academic papers gives prestige and accreditation to the authors in the society that women and girls must take as an advantage. Besides, in Afghanistan, the number of male professional researchers is much higher compared to female researchers which have created a huge gap between women and men in this area thus, one of the goals is to increase the number of female researchers in the community. Besides, the amount of reliable academic journals is less compared to other countries which is a need in Afghanistan.

According to the Wall Street Journal, only 15% of employed women are active in the field of research and science that brought job inequality among men and women that showed the inability of women and girls to have effective and academic approaches in addressing social constraints and challenges. However, comparing to Afghanistan's context, it is much lesser than the international rate. Academic writing and publication of evidence-based papers empower women in the areas of their professional works. Women will be more welcomed at the level of decision-making as academic persons who are active researchers with accurate knowledge to propose solutions. Likewise, the voice of an academic and knowledge generator is more likely to be heard. The Scholars' Project is aligned with women's leadership and democracy objectives as it aims to empower women and bring gender equality in the context of Afghanistan with an academic approach.

As women go to the ladder of education from the decision to doctorate degree, the number of woman educators decreases which questions advance gender equality and women empowerment to have an impactable voice. According to UNESCO, only 30% of the world's researchers are women while more women enroll in universities. This creates gender inequality in the field of research gives less authority to women to share and to have active participation in the decision-making levels compared to men. To decrease these gender gaps, the efficient tool is to encourage women and girls to be the knowledge generators (researchers). The Scholar Project Promotes scientific research ideas and academic writing programs so their voices should be heard. Therefore, to bring gender equality and to empower women to participate in the level of decision making as an academic and professional knowledge generator, writing and publication of papers is much effective. As a matter of historical accuracy this way women and men shall be able to share ideas and advocate for their rights and advances gender equality.

The key part of research studies is to unfold the layers of a particular problem in the field of the study by broad and educated hypotheses for the sake of seeking solutions for the welfare and

wellbeing of society. Afghanistan needs sustainable public infrastructural platforms to alleviate economic downsize due to persistent security threats and geopolitical position in the region which can be achieved by experts and knowledge contraction inside the country.

Dr. Batol Hashimi, Editor

Organization for Rehabilitation and Optimal Development

July 2021



I am pleased to introduce The Scholars' Project Annual Journal, one of new journals in the area of natural science studies in Afghanistan. The Scholars Journal provides opportunities to natural science students and medical practitioners to conduct and publish research papers in the field of medicine and health in Afghanistan.

The purpose of The Scholars Journal is to publish informed and up-to-date research papers. To be effective, the journal seeks to be accessible, engaging, and exciting considering the current issues in Afghanistan. As such, the medical papers published in this volume, have been gone through four stages. First the medical students from Kabul University of Medical Sciences were trained about how to conduct research (primary and secondary research). In the second stage, the students conducted both primary and secondary research considering their chosen topics for their papers. Writing the papers was the third stage; papers in two languages (Dari and English) have been collected from the teams that were written collaboratively. The fourth and important stage of the process included reviewing and editing the papers by the editors.

As an editor of these papers, there were surely opportunities and challenges to publish the papers. Hopefully, many students showed interest to learn and publish research papers which considering the conditions in Afghanistan is a very good point. Moreover, as editors reviewed and commented on the papers, the writers showed patience and interest to correct their papers many times.

One of the challenges noted was the weak writing skills of students to write coherent papers. Most of the comments and editions were about the writing mistakes in the papers. This is due to the fact that universities in Afghanistan do not include writing courses for students. Specially, in medical universities, students are only encouraged to study the medical courses and are discouraged to participate in extracurricular critical courses such as writing. However, the editors edited the papers in the best way possible so high quality papers would be published in the journal.

OROD research team seeks to enhance the research capability of the youth in Afghanistan. To do so, we try to conduct research courses and provide the opportunity for interested individuals to conduct field-based research and publish high-quality papers in our journal. Individuals or teams who wish to submit and publish their papers are much welcomed as this will make a considerable contribution to the growth and success of the journal. Thank you and best wishes for your contribution to The Scholars' Project Annual Journal.

Dr. Mahboba Azizi, Co-Editor

Organization for Rehabilitation and Optimal Development

July, 2021

# 1 Harassment of Female Students in Afghanistan Universities: A Case Study

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## KEY WORDS

Harassment  
Female  
Students

## ABSTRACT

**Aim:** The goal of this study is to gather accurate statistics on female sexual harassment, type of assault, criminals of harassment, review the functioning of responsible institutions, and find a solution to sexual harassment in Afghan universities.

**Methodology:** The method used in this study was an online survey containing 19 questions. Overall, 69 students from different universities, most of them from Kabul University of Medical Sciences, participated in the survey.

**Result:** The results of the study show that, most of the female students were harassed, and most of the assault by males were verbal. However, a larger group said that they have only witnessed harassment. Also, the results show that participants support making laws against this type of evil-doers; this suggests that level of harassment may have been high, but for some reasons including fear of being recognized, blamed or not able to discriminate assaults by some students, harassment is kept secret.

**Conclusion:** Sexual harassment includes all unwelcome physical, verbal and non-verbal actions and requests with sexual favors that cause fear and discomfort in the victims. While it is more than a wink, yet it is one of the most common problem around the world including Afghanistan. Lack of accurate statistics to measure existence or nonexistence of sexual assault among female students in Afghan universities have kept it hidden from universities' top management, professors and students themselves. On the other hand, obtaining such accurate statistics through carrying out surveys and conducting researches can prevent the incidence of harassment at universities.

## 1.1 Introduction

Based on Equal Employment Opportunity Commission (EEOC) definition, sexual harassment is unwelcome sexual advances, requests for sexual favors, and other verbal or physical harassment of a sexual nature. Unlike to common thought of people that sexual harassment is only physical, in fact, it can include many types: verbal; whistling at someone, making kissing sounds, asking personal questions, non-verbal; staring at someone, following a person for no reason, and physical; standing close, hugging or touching.<sup>1</sup> Although in most countries including Afghanistan there are no accurate statistics on sexual harassment of women, the overall picture shows an increase in the number of incidences. These assaults are seen in different public places including universities, hospitals, schools, office

es, and even in judicial institutions with no law against them. Also, different factors are related to this issue depending on different cultures and societies. In Afghanistan, cultural and social problems, poverty, low level of education and patriarchal society are

recognized as the main leading causes. Based on a patriarchal culture, women are considered as main culprits for most of crimes, and even it prevents women leaving home which promotes violence against women.

Another problem and challenge are that such behaviors against women and girls are committed not only by uneducated people but also by educated ones at universities, hospitals and other educational centers. Despite girls have access to education, the percentage of girls in schools is lower than that of men. Thus, harassment of girls in educational institutions prevent them from attending classes and discouraging them from studying which can further decrease their percentage than that of men. According to a report from WHO, in 1991 at a university in Kenya, 71 girls were sexually assaulted by their peers, and 19 were killed by act of harassment. Another sad truth mentioned in this report, is that harassment at universities, was not only conducted by classmates but also by teachers under the

1 U.S. Equal Employment Opportunity Commission. "Sexual harassment", n.d. <https://www.eeoc.gov/sexual-harassment>

2 Isar, Fariha, female harassment, 8 Sobh Newspaper, 2018. <https://8am.af/harassment-of-women/>

pretext of good grades or the threat of failure in exams.<sup>3</sup> Quantitative results of a study conducted at the university of Mazandaran under the title “Social analysis of factors affecting the rate of street harassment of women and girls” showed that in the past year 70.6% of women have been harassed by men several times or once a month.<sup>4</sup> On the other hand in Afghanistan, according to the Women and Children Research Institute (2015), among the 346 women who were interviewed in 7 provinces of Afghanistan, 90% of the women were harassed at least once in public, and the results also showed that among 87% experienced harassment at work and 91% at school. Moreover, a survey carried out in Daikundi also<sup>5</sup> shows that 85% of the 115 women interviewed have experienced sexual harassment in their lifetime.<sup>6</sup> In addition, a study conducted in 2010 by Kabul University Institute for Gender Studies on more than 200 female students from three Afghan universities, found out that 55% of these girls had experienced some form of sexual harassment or discrimination; of which, 48% have spoken bad language and 43% have experienced sexual discrimination. 8.9% of boys also have experienced bad language.<sup>7</sup>

## 1.2 Problem Statement

Kabul University of Medical Sciences is one of the educational institutions in the country that almost half of its students are female. There appears to be female students’ harassment in educational institutions by different ways verbal, mental or even physical and Kabul University of Medical Sciences (KUMS) is not exception in this case. Harassment of female students at Kabul University of Medical Sciences takes place in various verbal and motor forms, and this action creates an atmosphere of fear and unhappiness for them, and this action may cause them to have mental and psychological problems and prevent them from reaching their goals and even may cause some girls to drop out of school.

## 1.3 Research Objectives

Evidence-based approach is an opportunity to bring change because in this way, we can inform the community as well as provide real examples and cases to challenge authorities to bring positive changes in this aspect at universities on prevention of sexual harassment.

The following are the objectives of this research:

- To identify the common factors that may lead to harassment at universities.
- To identify the common factors that may lead to acceptance of harassment preventing to take actions.

- To find out how female students experience harassment, how to deal with it, and the effects that put on their lives such as mobility, work, participation, etc.
- To demonstrate the role of community and family in prevention of women's sexual harassment.
- To provide a brief review on the functions of the responsible institutions to prevent harassment.

### 1.3.1 The questions of the research

- 1) The female students of Kabul University of Medical Sciences are being harassed on campus by who?
- 2) In which classes female students of Kabul University of Medical Sciences are persecuted?

### 1.3.2 What is the nature of harassment?

- 3) Do these harassments affect mental state of female students at Kabul University of Medical Sciences?
- 4) Has anything been done before to end the harassments in the university? If so, has it been effective?
- 5) What should be done in the future to prevent the incidences of harassment?
- 6) What is the position or responsibility of Kabul Medical University in eliminating harassment?
- 7) What is the position or responsibility of female students in eliminating harassment?
- 8) Who and what plays a major role in eliminating harassment?
- 9) How do students of Kabul University of Medical Sciences react to harassment?
- 10) What issues prevent female students from sharing their complaints with the University President?

## 1.4 Methodology

The method used for data collection is online survey. The questionnaire consisted 19 close and open-ended questions so that students could answer according to their own assumption and experience. The questionnaire was shared through social media for a period of 2 weeks. 69 students between the age of 19-27 has participated in this online survey. The expectation for number of participants was quite high, but due to some reasons as: usage of

3 “Sexual violence”, n.d. WHO.int: 147- 181. [https://www.who.int/violence\\_injury\\_prevention/violence/global\\_campaign/en/chap6.pdf](https://www.who.int/violence_injury_prevention/violence/global_campaign/en/chap6.pdf)

4 Riahi, Mohammad and Khachki, Tahereh. “Social analysis of factors affecting the rate of street harassment of women and girls (Case study of female students of Mazandaran University)”, 2016, [https://ssoss.ui.ac.ir/article\\_20956.html](https://ssoss.ui.ac.ir/article_20956.html)

5 Isar, Fariha, female harassment, 8 Sobh Newspaper, 2018. <https://8am.af/harassment-of-women/>

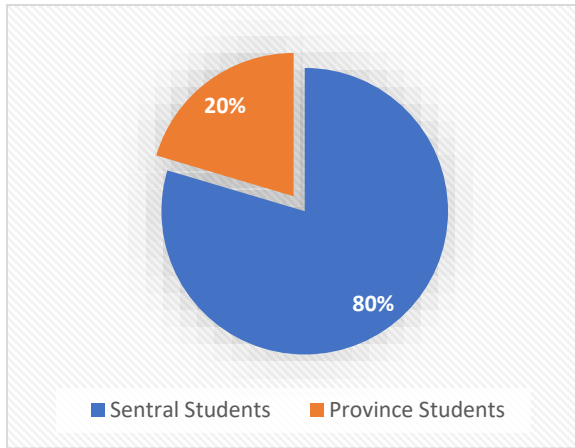
6 Women and Children Legal Research Foundation, n.d. <https://wclrf.org.af/fa/identifying-the-causes-and-solutions-for-sexual-harassment-against-women-in-afghanistan/>

7 UNDP and UNESCO. "Gender based violence: A study of three universities in Afghanistan". March 2010, Gender Studies Institute, Kabul University. <https://mci.gov.af/sites/default/files/2019->

online survey, cultural and traditional beliefs and some criticisms from male students limited the number of participants to 69 female students. Unfortunately, during the research process in social media we faced some critical encounters from some male students, which led to refusal of some female students from participation in this research and maybe it has an impact on some answers as well.

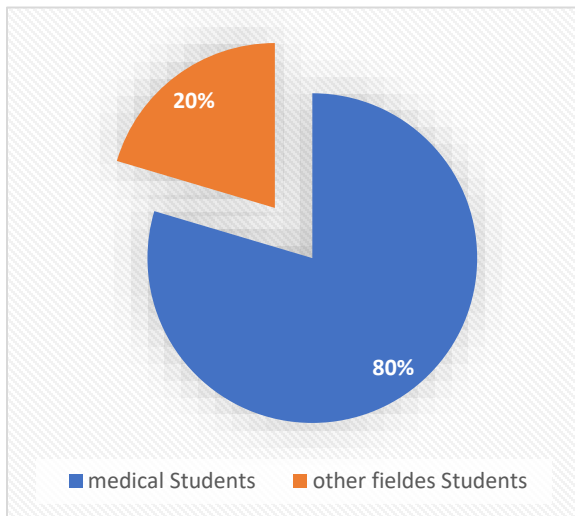
### 1.5 Data Analysis

1. Which Universities do you study at? 79% of participants are from central universities 21% are from province universities.



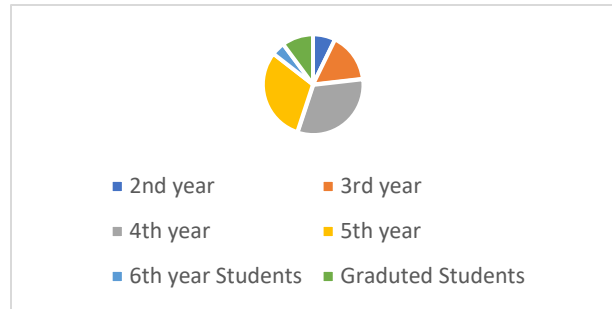
2. Which field are you studying?

79% of participants are medical students 21% are from other fields.



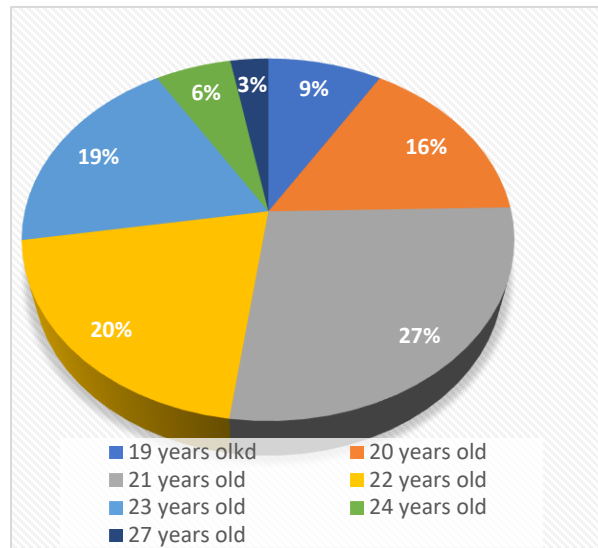
3. In which year of your study you are?

7.24% of participants are in the second year, 15.94% were in their third year, 21.88% are in fourth year. Fifth year, sixth year and graduated students are 30.43%, 4.34%, 10.14% respectively.



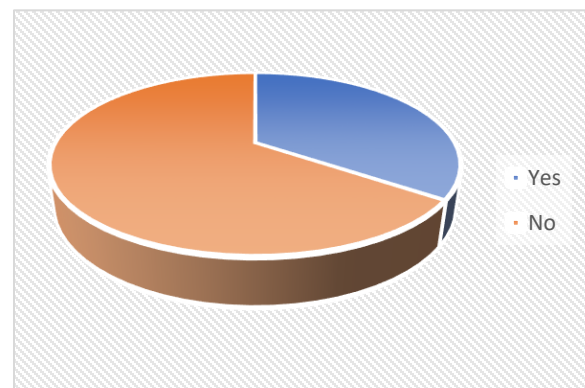
4. How old are you?

Between Participants 8.69% are nineteen years old, 15.94% are twenty years old, 27.5% are twenty-one years old, 20.28% are twenty-two years old, 18.84 are twenty-three years old, 5.79% are twenty-four years old, 2.89% are twenty-seven years old.



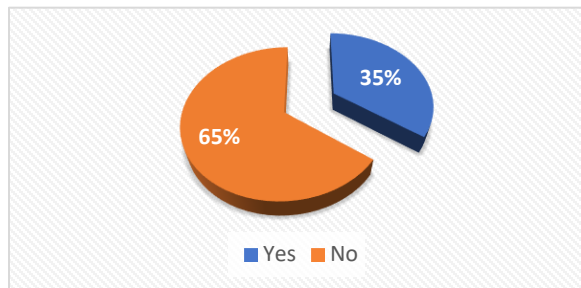
5. Do you have a save social environment at the university?

- 81.10 % of participants have chosen Yes,
- 18.8 have chosen No.



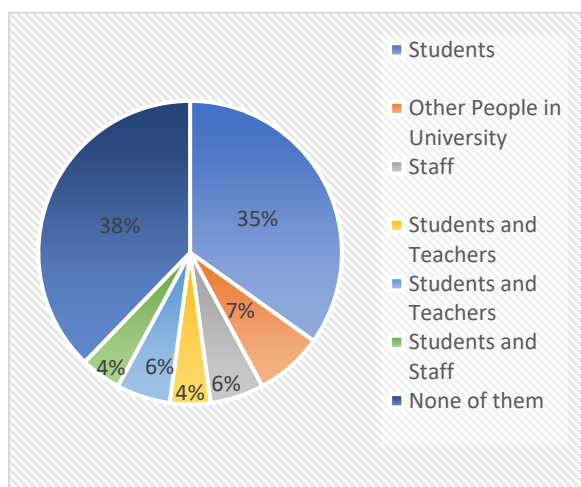
- 6. Have you ever been harassed in university by male Students?

34.7% of participants have chosen Yes, 65.2% have chosen No.



- 7. Who harassed you the most (you can choose more than one)

34.7% of participants have chosen Students, 7.2% of participants have chosen other people in university, 5.7% of participants have chosen Staff, 4.3% of participants have chosen Students and teachers, 5.7% of participants have chosen Students and other people, 4.3% of participants have chosen Students and Staff, 37.6% of participants have chosen none of them.



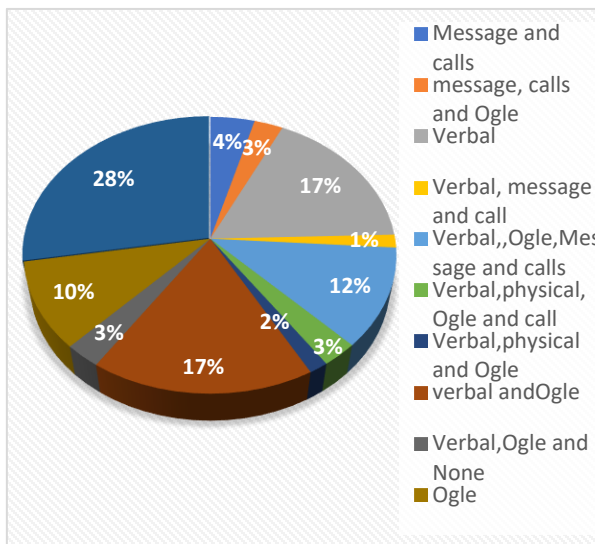
- 8. Where the most harassment occur (you can choose more than one option)

33.3% of participants have chosen university court yard, 13.3% of participants have chosen class and university court yard, 4.3% of participants have chosen court yard and departments, 2.8% of participants have chosen classes, 2.8% of participants have chosen university court yard and office, 1.4% of participants have chosen departments, 40.6% of participants have chosen none of them.

- 9. How was the harassment (you can choose more than one option)

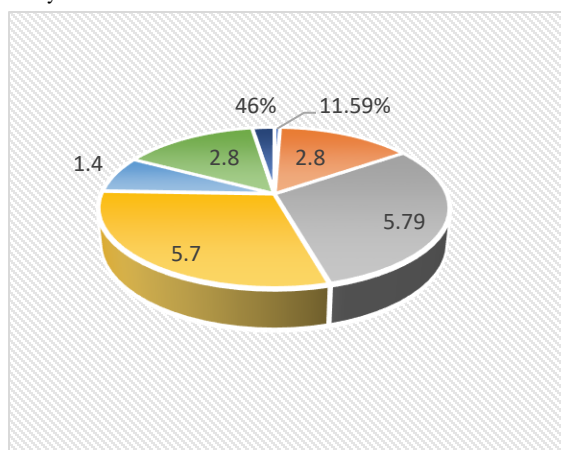
4.3% of participants have chosen message and calls, 2.8% of participants have chosen message, calls, ogle, 17.4% of participants have chosen verbal, 1.5% of participants have chosen Verbal, message and calls, 11.6% of participants have chosen verbal, message, calls and ogle, 2.8% of participants have chosen verbal, physical (touch, throwing things and blockade), ogle, message and calls, 1.5% of participants have chosen verbal, physical and ogle, 17.4% of participants have chosen verbal and ogle, 2.8% of

participants have chosen verbal, ogle and none, 10.2% of participants have chosen ogle, 27.6% of participants have chosen none.



- 10. What was effects of sexual harassment on you?

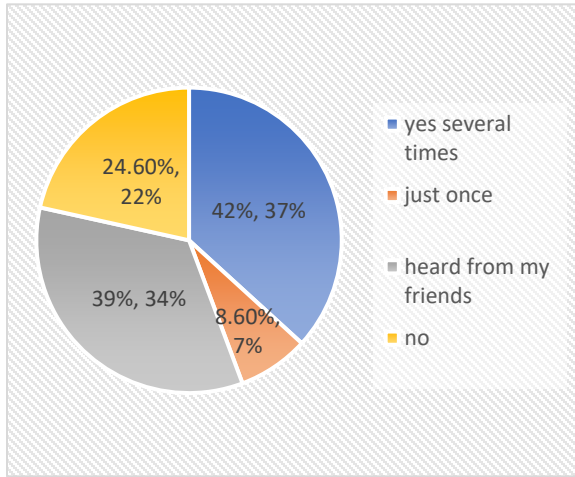
11.59% of participants have chosen the option of feeling fear, 2.85% of participants have chosen the option of anxiety and depression, 5.79% of participants have chosen the option of discouraging from going to university, low grades, anxiety and depression, 5.7% of participants have chosen the option of low grades, feeling fear at university, anxiety and depression, 2.85% of participants have chosen the option of discouraging from going to university, and feeling fear from going to university, 1.4% of participants have chosen the option of making absence at university, depression, anxiety and feeling fear, 55.7% of participants have chosen the option of none, 46% of participants have chosen options other than survey.



- 11. Have you witnessed harassment at your university?

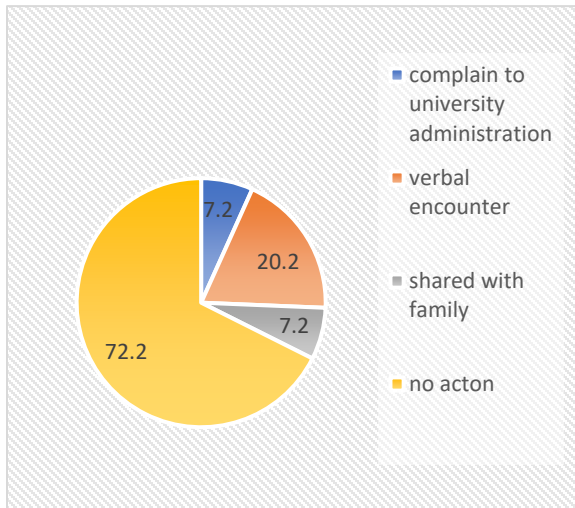
42% of participants have chosen the option of yes several times, 8.6% of participants have chosen the option of just once, 39% of

participants have chosen the option of I have heard from my friends and classmates, 24.5% of participants have chosen the option of NO.



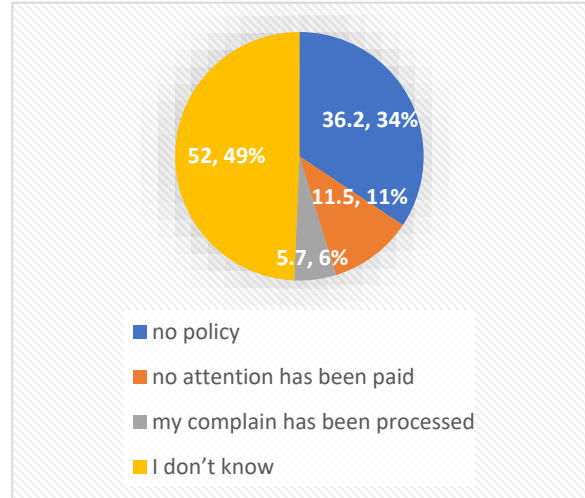
12. What was your action against this issue?

7.2% of participants have chosen the option of complaining to the university administration, 20.2% of participants have chosen the notion of the verbal encounter, 7.2% of participants have chosen the option of sharing the issue with their families, 72.2% of participants have taken no action.



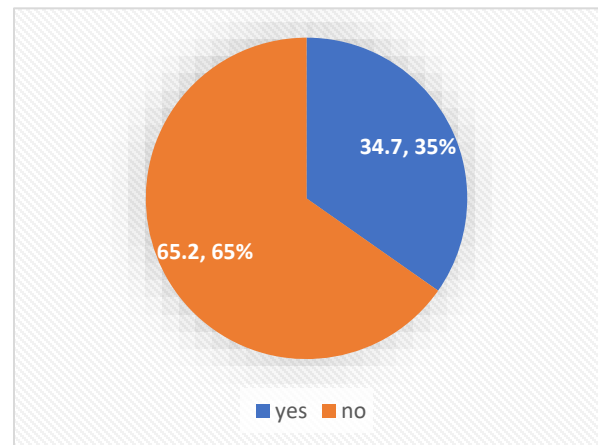
13. How do you evaluate your university's action in this regard?

36.2% of participants have chosen the option of there is no policy in our university regarding this issue, 11.5% of participants have chosen the option of no attention has been paid, 5.7% of participants have chosen the option of my complain has been processed, 52% of participants have chosen the option of I don't know.



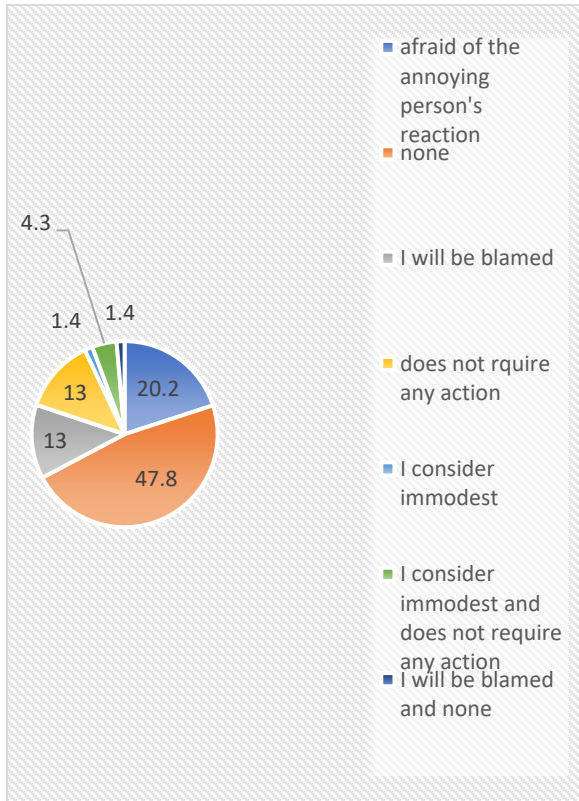
14. Has your action been effective?

34.7% of participants have chosen the option of yes, 65.2% of participants have chosen the option of no.



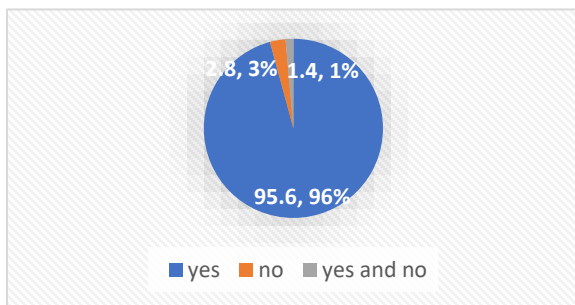
15. What was the reason for your failure to take action to remove the harassment? (You can choose more than one option).

20.2% of participants have chosen the option of being afraid of the annoying person's reaction, 47.8% of participants have chosen the option of none, 13% of the participants have chosen the option of I will be blamed, 13% of the participants have chosen the option of that is common and does not require any action, 1.4% of the participants have chosen the option of I consider immodest, 4.3% of participants have chosen the option of I consider it immodest and these are common and does not require any action, 1.4% of participants have chosen the option I will be blamed and none.



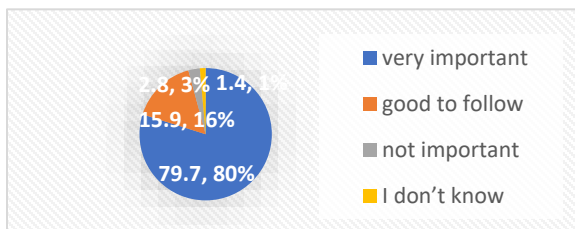
16. Are you in favor of creating a law against these behaviors?

2.8% of participants have chosen option no, 1.4% of participants have chosen yes and no, 95.6% of participants have chosen the option of Yes.



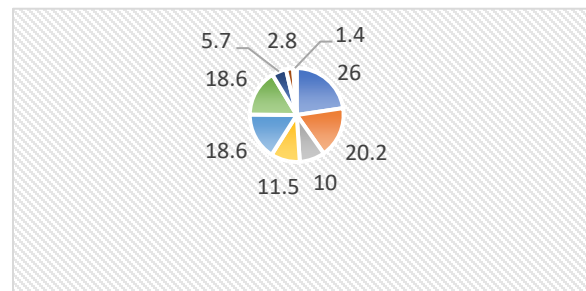
17. How important is it to follow up on events like this?

79.7% of participants have chosen the option of very important, 15.9% of participants have chosen the option of its good to follow, 2.8% of the participants have chosen the option of not important, 1.4% of the participants have chosen the option of I don't know.



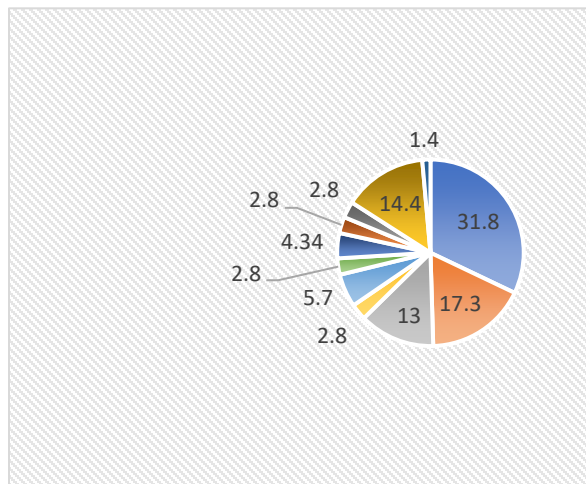
18. According to your opinion what is the main reason for this harassment?

26% of the participants have chosen the option of low levels of education, 20.2% of the participants have chosen the option of lack of cultural knowledge, 10% of the participants have chosen the option of problem in family upbringing, 11.5% of the participants have chosen the option of none existence of law, 18.6% of the participants have chosen the option of not observing hijab, 18.6% of the participants have chosen the option of sex poverty, 5.7% of participants have chosen the option of not being aware of religious matters, 2.8% of participants have chosen the option of I don't know, 1.5% of participants have chosen the option of both sides being to be blamed.



19. What methods do you suggest to prevent harassment?

31.8% of the participants have chosen the option of creating criminal's laws, 17.3% of the participants have chosen the option of improving level of education in people, 13% of the participants have chosen the option of improving the Islamic knowledge, 2.8% of the participants have chosen the option of observing hijab by females, 5.7% of the participants have chosen the option of I don't know, 2.8% of the participants have chosen the option of separating girls and boy's classes, 4.34% of the participants have chosen the option of no solution would be useful, 2.8% of the participants have chosen the option of parental control. 2.8% of the participants have chosen the option of reaction by girls themselves, 14.4% of the participants have chosen the option of creating rules, 1.4% of the participants have chosen the option of employing officials wisely.



## 1.6 Finding and Discussion

According to the research, with the age progress of the students, the incidence rate of harassment differs according to age. The level of harassment is low among the first and second-year classes and students aged 19 and 20. However, it increases among third, fourth-, and fifth-years' students aged 21 to 22 and again reaches at its lowest level among the students of the sixth year, practical period, and among graduated students. The reason why students of lower classes said that they have not witnessed harassment remarkably might be because students of lower ages are less likely to detect and define types of harassment. Thus, by the age progress the students might be able to detect harassment quickly and take action against it. Hence, they will experience less harassment.

Based on the figures, the harassment rate is at the same level in all universities of the country and among different fields. According to this research, 81% of the students have mentioned that they experience a safe environment in the university and the remaining percentage said that they are not happy with the university environment. Also, 65% of the participants have not witnessed harassment themselves and the remaining 35% have witnessed harassment.

Most of the female participants in this research remarked that the students are the basic group who harass female students while the majority of the participants selected the none option which indicates that because of different reasons, students want this issue to remain secret as usual, or they were unable to detect the incidence of harassment. Based on the participant's believes, the university counter yard is a main place for the harassment of female students; lack of disciplinary rules, gender sensitivity, and the non-observance of social etiquette are considered among the causing factors. Among obtained figures, verbal harassment is considered the most common type of harassment. At the same time, some of the students are plaintiff of phone harassments and that is why students are unable to share their numbers easily with others for further cooperation even if it is for a formal purpose which itself has disrupted daily activities and women development in the society. A study by Kabul University Gender Studies Center also found that the majority of harassment of female students was verbal and text messages (UNDP and UNESCO 2010)<sup>8</sup>. According to the study, some of the students did not experience lifestyle changes in their lives after experiencing harassment at university, while some students have witnessed the fear of going to university after the harassment. Although the majority of students said they enjoyed a safely campus, a high percentage recalled witnessing harassment of all other students at the university. This raises the question of how students say they enjoy a safe environment in universities while the majorities have witnessed harassment of other students at the university in this study. Can't students distinguish harassment? Or can students not psychologically admit that they have been harassed? According to the results of this study, students have not taken any action against harassment, which is due to lack of an accountable policy against harassment in universities, students' lack of awareness of the

existence of policies in universities, and fear of disclosure. A limited number of students who have responded to the harassment have stated that they have not achieved any satisfactory results; perhaps this causes students to lose their trust in the university policies and the gender department. In the end, students believe that making and enforcing a policy in this regard is necessity to provide a healthy academic environment at the university.

## 1.7 Conclusion

The study ("Harassment of female students in Afghan universities") was conducted in the form of an online survey. The purpose of this study was to identify the causes of harassment of female students, identifying people who cause harassment of female students, identifying causes that lead to the acceptance of harassment by female students, and examining the function of the responsible institutions in the field and receiving ways to prevent this harassment. The participants of this study considered male students as the main group who cause harassment to female students, while many participants chose the option of none, which shows that female students are not harassed or because of various reasons they do not open up. According to the participants, the university courtyard is the main place of harassment of female students; Lack of disciplinary rules, gender perspectives, and non-observance of social etiquette can be among the factors involved. In the obtained figures, verbal harassment is considered as one of the most common types of harassment; Short-sightedness, stinginess, the way girls dress, and the like are common causes of this type of harassment.

Most of the girls who have been subjected to such harassment either themselves or who have witnessed the harassment of their friends has taken no action to eliminate the harassment. Because they believe that their action will not be effective. Besides, the responsible institutions such as gender department of universities they do not have any specific and applicable law to eliminate harassment to support female students. According to the results of this study, most of the students support creation and ratification of laws against these behaviors and raising the level of awareness of students as solutions to this social problem.

## 1.8 Recommendations

To solve and overcome female students abuse and harassment in Kabul University of Medical Sciences/other educational institutions, following **recommendations must be considered:**

- 1) Formation of policy against female abuse and harassments.
- 2) Holding informative seminars on gender issues and women's rights in universities.

<sup>8</sup> UNDP and UNESCO. "Gender based violence: A study of three universities in Afghanistan". March 2010, Gender Studies Institute, Kabul University. <https://mciit.gov.af/sites/default/files/2019->



- 3) Distributing informative brochures and banners in educational institutions to stop violence against female students.
- 4) Increasing social knowledge regarding women's rights and ways to observe these rights.
- 5) Increasing religious knowledge of male and female students in this regard
- 6) Holding seminars to increase self-confidence and prevent stress and depression in female students.
- 7) Providing different cultural and academic opportunities for female students which plays a vital role in increasing their self-confidence and capacity.
- 8) Establishing an active committee to follow up harassment cases.

### **1.9 Author Special Contribution<sup>9</sup>**

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## 2 Prevalence of Dental Malocclusion and Its Gender Distribution Among Dental Students at Kabul University of Medical Science

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### KEY WORDS

Malocclusion  
Angel's classification  
Dental caries  
Dental plaque  
Gingivitis

### ABSTRACT

**Aim:** Current study aims to provide quantitative and qualitative information about the prevalence of dental malocclusions among dental students of Kabul University of Medical Sciences (KUMS) in the orthodontic department of Ali Abad Teaching Dental Clinic that evaluates the relationship of malocclusion between gender and the major causes of malocclusion in society among genders and the tendency of the community toward the treatment of dentoalveolar anomalies.

**Methodology:** This study was a cross-sectional survey which has been done randomly among 133 students, 68 male (51.12%) 65 female (48.87%), in an age range of (18-25) years old in Kabul University of Medical Sciences, Ali Abad teaching dental clinic faculty of Dentistry.

**Results:** shows the Dental malocclusion classes due to "Angel" classification in females Class I (53.48%) Class II (21.4%) Class VIII (23.07%) while in males Class I (48.33%) Class II (6.66%) Class VIII (43.33%). The rate of prevalence of crowding were (33%) in males and (43%) in females. It has been studied and analyzed separately that the most common oral problems in females were dental caries (53.84%). According to our survey (65 female participants), there was no one having periodontitis while in males dental Plaque was at the rate of (28.97%) and the least was Gingivitis (6%), respectively.

**Conclusions:** Occurrence of dental trauma in boys and heredity in girls may be the most important factor for dental malocclusion. Girls were more interested in orthodontic treatments which may be because they pay more attention to beauty more than boys. Moreover, crowding had the highest rate among participants followed by deep, open bite, and edge to edge bite.

### 2.1 Introduction

Normal occlusion is a harmonious alignment between teeth and dental occlusion, which provides a natural, harmonious relationship between the teeth, jaw muscles, temporomandibular jaw joints, and the nervous system. Any disruption in this harmonious alignment will result in deformity and malocclusion<sup>10</sup>.

Malocclusion has been a problem for some people from times immemorial, and attempts to fix these problems can be traced back to at least 1,000 years before Christ<sup>11</sup>.

Angle's classification of malocclusion in 1899 was a significant step in the progression of orthodontics.

- Angle's class I relation: the mesiobuccal cusp of the maxillary permanent first molar articulates in the

mesiobuccal groove of the mandibular permanent first molar.

- Angle's class II relation: the mesiobuccal cusp of maxillary permanent first molar articulates mesial to the mesiobuccal groove of mandibular first molars
- Angle's Class III relation: the mesiobuccal cusp of maxillary permanent first molar articulates distally to the distobuccal groove of mandibular first molars.
- Crowding was defined as overlapping of erupted teeth due to lack of space or insufficient for teeth to erupt in the dental arch.
- Spacing was recorded to be present when there was no proximal contact between 2 teeth in a dental arch.

10 Ahangar-Atashi MH, Dabaghi-Tabriz F, S, Rahbar M. Prevalence of Dental Malocclusions in Patients admitted to the Department of Orthodontics, School of Dentistry, Tabriz, in 2016. J Contemp Dent Pract 2017.18(11):1034-1039.

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At present, malocclusion is the third most common dental disease after dental caries and periodontal diseases in the world<sup>12</sup>. Relevant studies were carried out in different countries to investigate the prevalence of dental malocclusion in terms of gender which showed different results: A study in India showed that the prevalence of crowding is 50.4% in boys and 51.4% in girls. Cross-bite was reported 17.8% and 18.3% in boys and girls, respectively<sup>13</sup>. Angles class I malocclusion was reported in 78.4% of boys and 80.2% of girls. Angles class II malocclusion was reported in 21.5% of boys and 19.8% of girls and class III malocclusion was observed in 0.1% of boys. Crowding was found to be the most common feature, followed by increased overjet, deep bite, an anterior open bite in that order<sup>14</sup>. But in another study in Pakistan Agha Khan University, increased overjet was found to be the most common feature<sup>15</sup>. In this study, females were observed to have more class I than males<sup>16</sup>. The study showed that oral health-related quality of life improves with the treatment of malocclusion<sup>17</sup>.

Besides, in Afghanistan, the nonexistence of enough investigations or research about oral health especially dental malocclusion considering gender is a big challenge, because Afghanistan has been suffering from poverty, conflicts, and social inequality in terms of living standards that such conditions are known to severely impact oral health.

## 2.2 Research objectives

1. To find out the prevalence of dental malocclusion in both gender male and female.
2. To identify the major causes and problems of dental irregularities.
3. To demonstrate the tendency of both genders for treatment of dental malocclusion.

## 2.3 Methodology

This study was a cross-sectional survey which has been done randomly among 133 students, 68 male (51.12%) 65 female (48.87%) in a range age of (18-25) years in Kabul University of Medical Sciences, faculty of dentistry, 2020.

The type of research approach was a survey based on qualitative and quantitative questions. Data collection was started from 20 September till 20 November by the distribution of 140 questionnaires in the dentistry Faculty of Kabul University of Medical Sciences. Each questionnaire has consisted of 12 multiple

choice and two-point scale questions. After the expression of consent, the questionnaires were asked from the participants.

Before analysis, the dataset was preprocessed for missing values and outliers. All the charts and analysis are taken place by using an excel program.

Moreover, oral examination was performed in Ali Abad teaching dental clinic (orthodontic department) by using mouth mirror and dental probe to evaluate the presence of dental malocclusion class I, class II, class III classification based on angle's definition in students. The observation was recorded in the assessment form and later transferred to the computer. Dental bites and other oral information related to participants were extracted based on the information contained in the files.

### 2.3.1 Inclusion criteria

- 1) Age group between 18-25 years.
- 2) Students who have enough teeth in their jaws.
- 3) Students who are willing to participate in the research and are satisfied.
- 4) Students of dentistry faculty. This criterion was related to the research objective because conduction the survey was easier on dental students than other faculties' students.

### 2.3.2 Exclusion criteria

- 1) Age group out of 18- 25 years.
- 2) Students who have lost their teeth for various reasons.
- 3) Students who are not satisfied with the research.
- 4) Students of other faculties except for dentistry faculty.

## 2.4 Data analysis

Among the 133 participants who had the characteristics of sample entry and accepted to participate in this research "68" of them were males, "65" of them were females with an age range of 18-25.

Following is the evaluation of the results in terms of "causal factors (inheritance, trauma), gender, blood groups, the psychological and aesthetic effect of malocclusion and interest to treatment.

Table (1) shows the dental malocclusion classes due to "angel" classification in females' class I (53.48%) class II (21.4%) class III (23.07%) while in males' class I (48.33%) class II (6.66%) class III

12 Guo L, Feng Y, Guo HG, Liu BW, Zhang Y. Consequences of orthodontic treatment in malocclusion patients clinical and microbial effects in adults and children. BMC Oral Health. 2016; 16(1):112–112. [PMC free article] [PubMed] [Google Scholar].

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16 Pakistan Oral & Dental Journal Vol 34, No. 2 (June 2014), PREVALENCE OF ANGLES MALOCCLUSION ACCORDING TO AGE GROUPS AND GENDER.

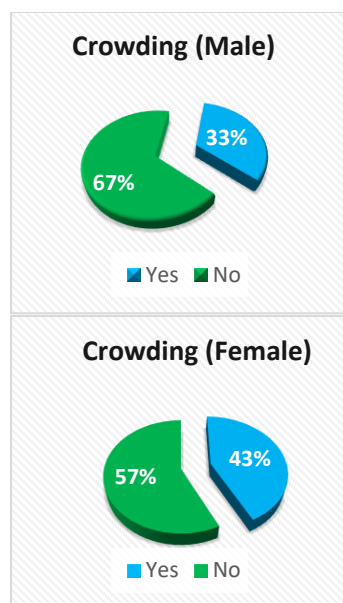
17 The Open Dentistry Journal, Orthodontic Treatment of Malocclusion and its Impact on Oral Health-Related Quality of Life. 2016, 10, 236-241.

(43.33%) therefore the statistics shows that the prevalence rate of class I in both genders is high.

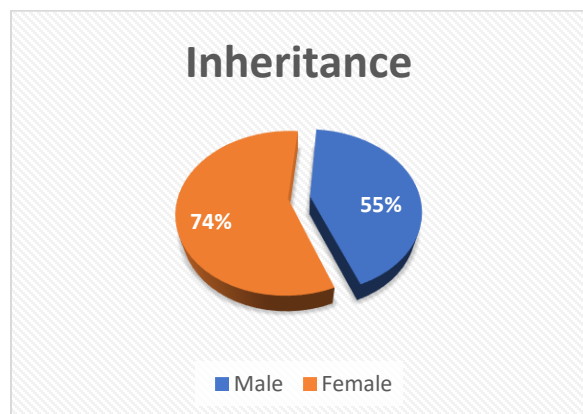
distribution of angles' classes due to gender

Gender	Angel's Classes		
	Class 1	Class 2	Class 3
Male	48.33%	6.66%	43.33%
Female	53.84%	21.53%	23.07%

/Table 1: Distribution of angle's classes due to gender in accepted students of Kabul University of Medical Sciences, faculty of dentistry.

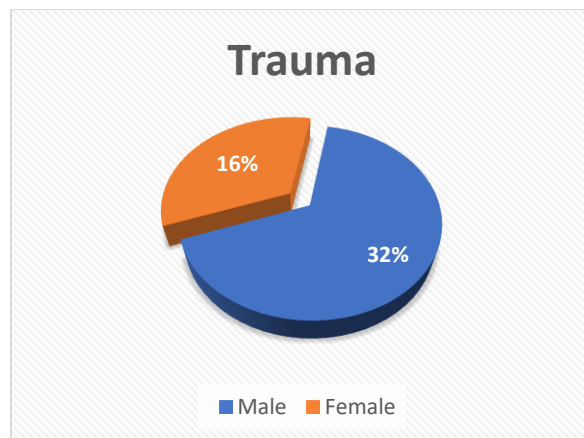


/Pie Chart 1&2: Moreover, pie/circle chart (1) (2) show the rate of crowding in males (33%) and females (43%).



Shows the existence of dental malocclusion among their family members and relatives, which describes the role of inheritance (74%) in females and (55%) males, the 23% difference indicates that inheritance in females is one of the significant factors in causing

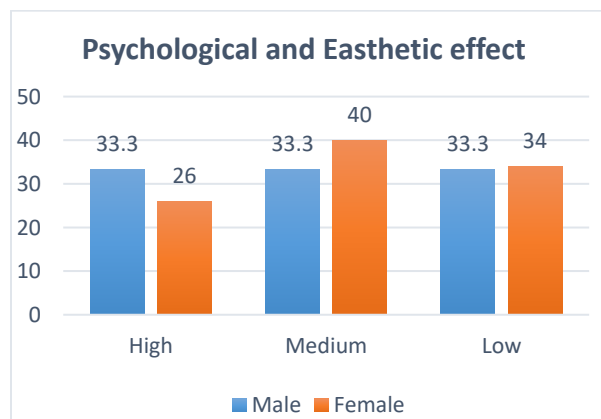
dental malocclusion because more than one member of the family has the same condition.



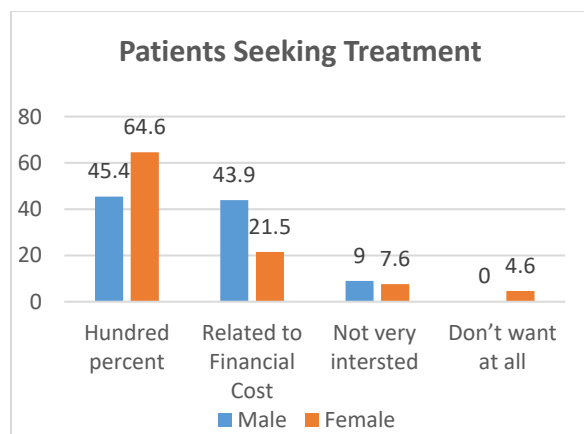
Explains trauma during childhood in primary teeth of both genders. It describes the incidence of trauma in deciduous teeth during their childhood (16%) in females and (32%) in males.

The below graphs show the impacts in the form of percentages: in females very high impact (26%), medium impact (40%), very low impact (34%), and in males very high impact (33.3%), medium impact (33.3%), very low impact (33.3%).

Graph (2) shows the interest of students in treatment. In females, (21.5%) wanted to be treated due to its financial cost, (7.6%) were not very interested to seek treatment, and (4.6%) don't want to be the treatment at all. While males (43.9%) wanted to be treated due to its financial cost, (9%) were not very interested in treatment.



**Graph (1)/Figure (5):** describes the percentage of psychological and aesthetic Effects of dental malocclusion on both genders.



Graph (2)/Figure (6): shows the interest of participants towards treatment in a percentage.

In the table (2) the prevalence of oral problems in both genders on a percentage basis is shown. It has been studied and analyzed separately. In females, the most oral problem was dental caries (53.84%). In the male, the most common problem was dental plaque (28.97%) and the least was Gingivitis, (6%) in female, (4.67%) male, respectively.

oral problems

<i>Oral Problems</i>	<i>Male</i>	<i>Female</i>
Calculus	16.82%	21.53%
Caries	28.04%	53.84%
Dental plaque	28.97%	20%
Gingivitis	4.67%	6%
Periodontitis	8.41%	0%
Non Existing of Oral Problems	9.34%	24.61%

Fig. 7./Table2: Different types of oral problems among accepted students of Kabul University of Medical Science, faculty of dentistry, in 2020.

Table (3) explains the percentage of oral bad habits among students of both genders. The prevalence of these unhealthy habits in each gender has been studied and analyzed separately. In females, the most common types of unhealthy habits are bruxism (18.46%) and the lowest percentages are nail chewing and tong thrusting (1.53%). While in males, the most common type of unhealthy habit was mouth breathing (14.06%).

oral bad habits

Oral Bad Habits	Male	Female
Mouth breathing	14.06%	7.69%
Bruxism	7.81%	18.46%

Oral Bad Habits	Male	Female
Mouth breathing	14.06%	7.69%
Nail chewing	3.125%	1.53%
Thumb sucking	1.56%	3.07%
Tongue thrust	0%	1.53%
Nothing	73.437%	73.84%

Fig. 8./Table3: It shows different types of oral bad habits among the participants.

Table (4)/Fig. 9: dental bites table shows the types of dental bites in both genders on a percentage basis. In females and males, the most common type of dental bite was normal bite (64.61%) while the edge-to-edge bite was (15%) in males and deep bits in females are the second common bites.

DENTAL BITES

Dental Bites	Male	Female
Normal bite	63.33%	64.61%
Deep bite	11.66%	18.46%
Open bite	10%	7.69%
Cross bite	0%	1.53%
Edge to Edge Bite	15%	0%

Table (5)/Fig. 10: It displays the prevalence of dental malocclusion in different types of blood groups among the participants.

blood groups

Blood Groups	Male	Female
A	22.7%	15.3%
B	34.8%	30.7%
O	36.3%	36.9%
AB	6%	10.7%

Fig. 10./Table 5: O&B blood groups show the highest rate of dental malocclusion in both males and females.

## 2.5 Discussion

Occlusion can be defined as the contact between upper and lower teeth in all mandibular positions and movements. Different classifications have been presented previously, by Angle, of which classification based on first permanent molars relationship is now used. Based on this classification, occlusion is divided into three categories: Class I is the normal relationship between upper and lower first permanent molars. In this class, the lower first permanent

molar is about 1/4 tooth width anterior to the same upper tooth<sup>18</sup>. In class II, the lower first permanent molar and other lower teeth have more posterior position and in class III, the lower first permanent molar and other lower teeth have a more anterior position<sup>19</sup>. Malocclusion in itself is not a life-threatening condition; however, it may unfavorably affect the social interactions and psychological well-being of patients<sup>20,21,22</sup>. It is one of the major oral health problems ranking third after dental caries and periodontal disease<sup>23</sup>. It affects periodontal health and increases the risk of dental caries, traumatic dental injuries, and temporomandibular joint problems. The main advantage of orthodontic treatment is the enhancement of physical function, improvement of esthetic components, and avoidance of tissue damage. This study showed that among participants females are more interested in treatment and have fewer psychological effects of dental irregularities than males. According to findings of this research girls with a difference of 20% less than boys, they seek treatment, which may be because girls pay more attention to beauty than boys. Moreover, based on the findings of this study, it is concluded that blood group types of O and B in both genders, as well as the occurrence of dental trauma in males and heredity in females, may be the most important factors for dental malocclusion among the participants.

In the presence of teeth irregularity, it becomes difficult to clean the teeth. Therefore, remaining food in the teeth for a long time is one of the main factors for the formation of dental caries, dental plaque, and calculus which are observed in both genders. Therefore, irregularity of teeth may cause dental carries directly.

The prevalence of dental caries in both genders is more common than other oral problems, while the rate of bruxism in females is more common than in other oral habits. However, several other factors can lead to malocclusion such as dental plaque, which causes gingivitis, so, maybe there is a direct relationship between dental plaque and gingivitis. According to our research, probably there is a direct relationship between mouth breathing and oral problems such as caries and gingivitis, and also a relationship between open bite, class I, and class II malocclusion.

Table (6)/Fig. 11: It shows the probable relation between causal factors and their effect on oral health.

#### Casual factors and their effects

Causes	Effects
Oral Bad Habits, Bruxism, Nail Chewing, Thumb Sucking, Tongue Thrusting	Open bite
Bruxism	Periodontitis
Dental Plaque	Gingivitis
Mouth Breathing	Caries, Gingivitis
Class 2, Class3	Open bite
Edge to Edge Bite	Class 1
Open bite, Class 2, Class 3	Mouth breathing

To compare, a study in India showed that the prevalence of crowding was 50.4% in boys and 51.4% in girls, cross-bite was reported 17.8% and 18.3% in boys and girls, respectively<sup>24</sup>. While in this study the prevalence of crowding in boys was 67% and 57% in girls, cross bite was 1.53% in girls and wasn't reported in boys. Angle's class I malocclusion was reported 78.4% in boys and 80.2% in girls. Angles class II malocclusion was reported in 21.5% of boys and 19.8% of girls and class III malocclusion was observed in 0.1% of boys<sup>25</sup>. While in this survey angles class I malocclusion is 48.3% in boys and 53.8% in girls. Angles class II is 6.6% in boys and 21.5% in girls and class III is 43.3% in boys.

In another research, crowding was found to be the most common feature, followed by increased overjet, deep bite, an anterior open bite in that order<sup>26</sup>. In this research, crowding has also the highest rate among participants following the deep bite, open bite, and edge to edge bite. In research in Pakistan, females were observed to have more class I than males<sup>27</sup>. In this study, females were observed to have more class 1 than males as well.

According to the current study and Table (7), there were many differences between the prevalence of dental irregularities in girls and boys based on the causes and existence of an unequal number of participants in terms of gender, certainly, we can't judge in which gender the teeth irregularities were more or less.

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### Prevalence of Dental Malocclusion in Both Sexes According to Its Mean

	Male	Female
Angles Classes	32.77%	36.19%
Oral Problems	17.38%	20.27%
Dental Bites	20%	8.46%
Oral Bad Habits	5.31%	6.46%
Dental Crowding	33%	43%
Overall Average of Observation	21.7%	22.88%

Note: This study had a limited number of samples and students were randomly selected. Therefore, the results of the study indicate the prevalence of dental malocclusion among dental students of Kabul University of Medical Science, which can't be attributed to all members of society or all students in Afghanistan.

## 2.6 Conclusion

The following conclusions were drawn from the present survey:

Angle's class I malocclusion was 48.3% in males and 53.8% in females. Angles class II was 6.6% in males and 21.5% in females and class III was 43.3% in males and 23% in females. Class I of malocclusion was more common in females than males, while class III of malocclusion was more common in males than females. Crowding had the highest rate among participants followed by a deep bite, open bite, and edge to edge bite. The occurrence of dental trauma in boys and heredity in girls may be the most important factors for dental malocclusion. Girls were more interested in orthodontic treatments which may be because they pay more attention to beauty more than boys.

## 2.7 Recommendations

According to our survey conducted among the students of dentistry faculty at Kabul University of Medical Science, because all those students were Dental students who had sufficient knowledge and information about the problems of dental abnormalities and irregularities, and this caused that all of them pay serious attention to their oral health especially dental irregularities. So, we can understand that having knowledge and information about an issue is necessary to solve or reduce the problem. Thus, we ask and highly recommend the Afghanistan government reduce dental irregularities in society by spreading sufficient information about it and raising awareness in the communities. They should inform the public through press and academic conferences in schools and universities, as well as through the media so that the general public pays attention to oral health especially dental malocclusion.

According to our research, girls were more interested in treating dental malocclusion than boys, and it is also clear that dental

treatments, special orthodontics treatment are often expensive so the majority of people can't afford the treatment. Therefore, we urge and recommend the government to provide more facilities for women, both financially in terms of easy access to treatment, especially orthodontists, to offer more discounts for the treatment of women. In this way, we can increase the interest of people towards the treatment of dental disorders and also can reduce the rate of dental disorders among society.

There is very little research about dental malocclusion in Afghanistan, and we cannot further and deeply evaluate the underlying problems of people with insufficient data. Thus, we need more research on more people in all provinces to have access to more information and big data to be able to propose and build effective solutions and programs to solve or reduce malocclusion problems. Therefore, we recommend our government provide more opportunities for researchers regarding such investigations.

## 2.8 Author Special contributions<sup>28</sup>

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### 3 Depression Causes Among Medical Students of *KUMS*: a quantitative study

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#### KEY WORDS

Depression  
Medical  
Students  
Curriculum  
KMUS

#### ABSTRACT

**Background:** Depression is an important contributor to the global burden of diseases that affects people of the world regardless of their social status and level of education. Students are more vulnerable to this condition as result of high level of study demand and performance pressure especially medical students who are more prone to extreme stress. Despite, there have been no recent, multicenter, qualitative studies assessing medical students' greatest stressors. Thus, the aim of this study is to explore and identifies the main causes of depression among medical students at Kabul University while examining corresponding data on depression among medical students.

**Method:** 129 medical students of Kabul University of Medical Sciences were assessed using online questionnaire form.

**Results:** The overall prevalence of depression among medical students was 66.9% due to university's intense course catalogue, the main cause of depression was university's textbook contents which was 52.8%. The study showed the high percentage of students cope with stress by religious beliefs and practices while few numbers of the students consulted with a psychiatrist for stress relief.

**Conclusion:** the study showed that the prevalence of depression among Kabul University of Medical Sciences students is due to university's curriculum. Therefore, attempts should be made to reform the curriculum and teaching method of the instructors by providing a comprehensive educational program at the university that eliminate the cause and factors that has direct relation with educational stressors among medical students. Future research should seek to identify other stressors and suggest possible eradicating methods of stressor.

#### 3.1 Introduction

Depression is a frequent mental ailment affecting over 264 million people worldwide<sup>29</sup>. It is characterized with the aid of persistent disappointment and a lack of hobby or pleasure in formerly beneficial or fun activities<sup>30</sup>. It can also disturb sleep and appetite, develops tiredness and negative attention. Depression is a leading purpose of disability around the world and contributes substantially to the international burden of diseases. Causes of depression are complicated. There are multiple causes of major depression such as genetic vulnerability, severe life stressors, narcotic substances additionally some medications, alcohol and clinical stipulations<sup>31</sup>. This study shows that depression is very common among medical students in Afghanistan because of the study pressure imposing on medical students during academic years at university, stress of

examinations, particular culture in Afghanistan, war, and insecurity<sup>32</sup>. However, this paper covers the incidence of depression and anxiety only among medical student<sup>33</sup>. These aforementioned factors are the most common causes of mental disorders that effect people from different group of ages. It is stated that anxiety and depression had the highest percentage of incidence among medical students. At its worst, depression and anxiety can lead to suicide. Close to 800 000 people die due to depressive suicide every year<sup>34</sup> which is the second leading cause of death<sup>35</sup>. Hypothetically, medical books and the way they are written and taught could be one of the most important cause of depression among the student of Kabul University of Medical Sciences. Maybe this is a unique case in underdeveloped countries that the books cause depression, including Afghanistan. According to the medical students the books contents are so difficult to memorize, recall and pass their exams.

29 WHO. Newsroom. Depression 2020. <https://www.who.int/news-room/fact-sheets/detail/depression>. Updated 30 Jan 2020; Accessed 26 Mar 2020.

30 <https://www.everydayhealth.com/depression/guide/>

31 World Health Organization. "Depression" <https://www.who.int/news-room/fact-sheets/detail/depression>

32 Relifweb. <https://relifweb.int/report/afghanistan/mental-health-crisis-afghanistan>

33 Mental health: a state of well-being. WHO 2020

34 WHO Mental Health Prevention of Suicidal Behaviours: A Task for All. [(accessed on 15 October 2017)]; Available online: [http://www.who.int/mental\\_health/prevention/suicide/background](http://www.who.int/mental_health/prevention/suicide/background)

35 Mental health: a state of well-being. WHO 202, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6657025/>



Despite, they are obligated to read those specific books to pass the exams. The reason that students cannot read the books properly is most of them have been translated by automatic engines or by unprofessional translator, lack of editing and proofread, have grammar and spellings mistakes.

### 3.2 Literature Review

Previous studies have proven excessive ranges of symptoms of depression among scientific students. One of the worst complications of depression is suicide, and the most common cause of death among individuals aged 15 years to 29 years, according to Association of American Medical Colleges (AAMC)<sup>36</sup>. It was recorded that the average age suicide is 24 years old among medical school<sup>37</sup>. This encourages a notion that the main reason of loss of life in clinical schools and faculties is suicide due to depression. As in US alone 17.3 million adults (7.1% of the adult population) have had at least one major depressive episode<sup>38</sup>. So, in Afghanistan as a developing country the statistics values tend to be much higher, almost about half or more than half of Afghanistan's population is depressed<sup>39</sup>. In a developing country like Afghanistan a lot of psychiatric and mental illnesses are undermined and almost always left untreated. Prevalence of depression in Afghan society could be due to stress associated to different social-economic factors<sup>40</sup>. In Goubert et al Study, results showed that depression is a significant issue both in medical students and among residents. Total response rate was (21.2%), suggesting that the rate of depression is higher than in graduate students and other young adults<sup>41</sup>. The aim of this study was to explore and understand causes of stress among medical students and the consequences of stress on their daily life. From studies in Dahlin et al, first year medical students indicated the high level of pressure among students. Gender differences were also noted, women experienced higher level of stress than men<sup>42</sup>. Another study was conducted on 240 medical students showed that 30% of these students had mental issues however, this study found no difference in prevalence of mental distress in different genders<sup>43</sup>.

Another study which focused on depressive disorder revealed that about a third of participants (students) showed major depressive

disorders including mild, moderate, moderately depressive episodes. The study found that major depressive disorder of medical students in Cameroon is linked to conditions such as being female, having chronic disease, traumatic life events, and having practices in clinic<sup>44</sup>. In Chang et al study, the occurrence of burnout, depression, and stress had been greater among third-year clinical college students in contrast with other clinical college students from previous studies<sup>45</sup>. In 35 studies carried out in Iran from 1995 to 2012, prevalence of depression in the university college students was estimated to be 33%. The incidence of despair among boys was estimated to be 28%, in girls 23%, in single college students 39%, and in married students 20% while the ordinary pooled crude occurrence of despair or depressive signs was 27.2%<sup>46</sup>.

In the 9 longitudinal research that assessed depressive symptoms before and during medical school, the median absolute increase in symptoms was 13.5%, prevalence estimates did not significantly differ between studies of only preclinical students and studies of only clinical students and the percentage of medical college students screening for despair who sought psychiatric cure used to be 15.7%<sup>47</sup>. Another study showed that moderate despair and nervousness confirmed an expand from 4.3% to 29.8%, only 4.3% had stated growing stages of burnout in contrast to the 55.3% of college students at the end of the year that had reported the identical experience resulted in a large affiliation of sleep deprivation with depression<sup>48</sup>. In Sobowaleet al study quotes of melancholy and suicidal ideation are excessive in medical university college students in mainland China<sup>49</sup>.

### 3.3 Methodology

The research methodology was cross sectional conducted among students of Kabul University of Medical Sciences through online survey. The university has over 3000 thousand medical students in an academic year however this study covered a sample size of 129. The method of data collection for this research was quantitative through survey questionnaires using online mediums while strongly maintaining the confidentiality of data. We did systematic random sampling who participated voluntarily. The standard questionnaire

36 "Healing the very youngest healers | AAMC" <https://www.aamc.org/news-insights/healing-very-youngest-healers>

37 Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, et al. (2008) Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med* 149: 334-341.

38 The 2017 National Survey on Drug Use and Health Methodological Summary and Definitions

39 Relief (2017). <https://reliefweb.int/report/afghanistan/mental-health-crisis-afghanistan>

40 "WHO EMRO | Depression a leading cause of ill health and disability among Afghans – fighting stigma is key to recovery | Afghanistan-news | Afghanistan" <http://www.emro.who.int/afghanistan-news/world-health-day-2017.html>

41 Rosen IM, Gimotty PA, Shea JA, Bellini LM (2006) Evolution of sleep quantity, sleep deprivation, mood disturbances, empathy, and burnout among interns. *Acad Med* 81:82-85.

42 Dahlin M, Joneborg N, Runeson B (2005) Stress and depression among medical students: a cross-sectional study. *MedEduc* 39: 594-604.

43 Prevalence of mental distress and associated factors among Hawassa University medical students, Southern Ethiopia: a cross-sectional study. Melese Bayu B, Wondwossen F. *BMC Res Notes*. 2016 Nov 8;9(1):48

44 Prevalence and factors associated with depression among medical students in Cameroon: a cross-sectional study Stewart Nduard Carlson Babila Sama, *BMC 1,2 Ngasa, Psychiatry*. 2017; 17: 216. Published online 2017 Jun 9. doi: 10.1186/s12888-017-1382-3

45 Goebert D, Thompson D, Takeshita J, Beach C, Bryson P, et al. (2009) Depressive symptoms in medical students and residents: a multischool study. *Acad Med* 84: 236-41.

46 Prevalence of Depression among University Students: A Systematic Review and Meta-Analysis Study: Diana Sarokhani *Depression Research and Treatment* Volume 2013, Article ID 373857, 7 page [shhttp://dx.doi.org/10.1155/2013/373857](http://dx.doi.org/10.1155/2013/373857)

47 Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis. Rotenstein LS et al *JAMA*. 2016 Dec 6;316(21):2214-2236. doi: 10.1001/jama.2016.17324

48 Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis. Rotenstein LS et al *JAMA*. 2016 Dec 6;316(21):2214-2236. doi: 10.1001/jama.2016.17324

49 Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, et al. (2008) Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med* 149: 334-341.

was prepared by consultation of psychiatrist and also using of several academic sources including books and websites. Then the link of the survey was shared with the medical groups in which all of the members were medical students of KUMS to receive and collected the answers online. The research was based on anonymity and self-reporting. Both female and male students participated in the survey.

### 3.4 Problems and Limitations

Stigma associated with mental disorders and absence of sufficient previous research on the prevalence of depression and its factors among medical students in Afghanistan were the main challenges we encountered during the research. Moreover, the research was conducted online it is possible that other than medical students of Kabul Medical university' might have participated too that could question the reliability of the research since it relies on self-reporting information.

### 3.5 Data Analysis and Results

The research studied the prevalence rate of depression and its particular factors that contribute such as university's curriculum, social environment, behavior of the teachers, economic status of students, and family status. The data was collected by online Survey and then Microsoft Excel was used to analyze the data descriptively. The questionnaire contained 17 questions. Out of the 129 respondents, (40) were male and (88) were female students. The average age of students who participated was 21.18 and range of 18 to 26 years old as table 1 shown.

Gender	Number	Percentage
Female	88	68.8%
Male	40	31,1%
Blank	1	
Total	129	100%

The prevalence of depression found to increase after admission to the university. the study showed that 66.9% of the students became depressed. Shown in Table 2.

Manifestation of depression	Number
Before university admission	7
After university admission	85
Both	35
Blank	2
Total	129

Interestingly, it was found that 66.9% admitted that on the cause of depression is university curriculum as it is Shown in table 3.

Curriculum	Numbers	Percentage
Yes	85	66.9%
No	42	33,1
Blank	2	
Total	129	100%

Another main cause of student's depression was their book contents, it's shown in Table 4.

Books' content	Number	Percentage
Yes	67	52,8%
No	60	47,2%
Blank	2	
Total	129	100%

Studying possible measures like; their religious believes we find out that the high percentage of students were coping with depression through their religious thoughts and believes however, few numbers of students were coping through consulting with a psychiatrist, to alleviate the situation. Religious coping refers to the use of religious beliefs or practices to cope with stressful life situations<sup>50</sup>. In our study we found out, the high percentage of students cope with stress by religious beliefs and practices, only some of the students consult with a psychiatrist for stress relief.

### 3.6 Discussion

The findings show that students of Kabul University of Medical Sciences became depressed after admission to the university. As findings show (66.9%) of students became depressed after their admission and (27.6%) had depression symptoms prior to the university admission. This finding is comparable with the results of similar study done in Kathmandu University Medical Journal in which they found that the prevalence of depression is more common

<sup>50</sup>Pargament KI, Magyar-Russell GM, Murray-Swank NA. The sacred and the search for significance: Religion as a unique process. J Soc Issues. 2005; 61: 665– 87. [Google Scholar]

among the first-year students than the third-year students<sup>51</sup>. But in another research at the Dow University of Health Sciences in Pakistan, the findings are unlike to this, they found that depression was significantly higher in third year students compared to first, second and fourth years<sup>52</sup>. Moreover, a cross sectional survey carried out on stress and depression showed that medical students had higher depression rates than the general population, and female students being more depressed than males<sup>53</sup>. This can be comparable to our research because, students became depressed after starting their university.

In addition, one of the causes of depression as this paper indicates could be correlated to the sudden shift of subjects from school to applied sciences on the other hand, excessive workload and pressure of exhausting clinical hours with very little recreational time could also be contributing factors.

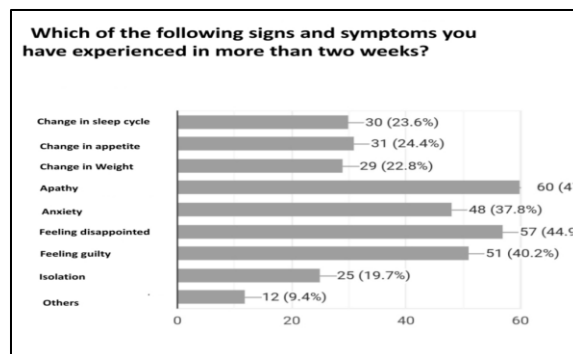
Increased level of stress and consequently depression indicates different problems of medical students according to the answers which they reported in the university, like curriculum, the contents of books, the manners of their teachers, the social state and environment of the university, the scores of their exams. Hypothetically, medical books and the way they are written and taught could be one of the most important cause of depression among the student of Kabul University of Medical Sciences. Another cause of depression this study indicates is the behavior of the instructors. The high percentage of students were unsatisfied of the instructors' teaching methods. As shown in Table 5.

Behavior of instructors	Number	Percentage
Yes	70	55.1%
No	57	44.9%
Blank	2	
Total	129	100%

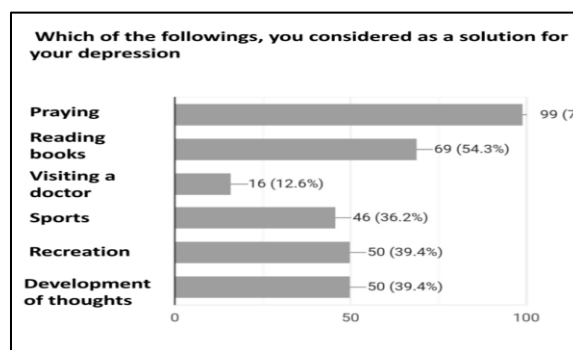
### 3.7 Conclusion

In this research 129 subjects filled the questionnaire, 68.8% of subjects were females and 31.1% were male, according to the research 49.1% subjects had experienced apathy in more than two weeks shown in figure 6.

Among these people 66.9% had faced depression during university period, 76.4% of participants didn't have family history of depression while 66.9% thought that education system is a factor that this result revealed a clear picture of the prevalence of



depression among medical student as result of curriculum, 65.5% felt unhappy and depressed dues to lack of free time and enough rest and sleep. Moreover, 52.8% said that the contents of university's books cause depression since the contents of the books are translated from the original language to native carelessly while 55.1% said that behavior of teachers is another factor. Among all participants only 22% were satisfied of the university's educational system and other 78% were not. Fortunately, 78.1% participants had thought a solution for their depression, 79.1% had chosen praying and only 12.6% said that visiting a doctor is a good option to treat depression, as shown in figure 7.



### 3.8 Recommendations

- 1) Creation of widespread awareness programs by the Ministry of Public Health for families and students on the signs and symptoms and consequence of depression.
- 2) Reformation of teaching method in the university to decrease the level of incidence of depression.
- 3) Raising community awareness to deal with depression.
- 4) Create useful entertainment programs in university with the direct supervision of ministry of higher education.
- 5) Establishing counseling centers for students to solve their problems and give proper information on how to

51 Depression Among Undergraduate Medical Students | Kathmandu University Medical Journal  
<https://www.nepjol.info/index.php/KUMJ/article/view/8021>  
 52 "(PDF) Prevalence of depression and anxiety among undergraduate medical students in a government medical college of Karachi"  
[https://www.researchgate.net/publication/319068701\\_Prevalence\\_of\\_d](https://www.researchgate.net/publication/319068701_Prevalence_of_d)

depression\_and\_anxiety\_among\_undergraduate\_medical\_students\_in\_a\_government\_medical\_college\_of\_Karachi  
 53 Dahlin M, Joneberg N, Runeson B. Stress and depression among medical students: a cross sectional study. *Med Educ* 2005;39(6):594-604.

deal with stressors during their academic years at the university.

- 6) Investigating the psychiatric health of students regularly and helping the patients who have psychiatric disorders.
- 7) Encouraging the students refer to psychiatric specialists when they have felt depressive symptoms.

### **3.9 Author Special contributions<sup>54</sup>**

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## 4 استفاده وافر ادویه انلجرك و عوارض جانبی آن

مریم لیول<sup>۱۴</sup>، فرشته لیوال<sup>۱۵</sup>، شکبیا شکوری<sup>۱۶</sup>، رنا منیر<sup>۱۷</sup>

شفاخانه های تدریسی میوند و علی آباد کابل افغانستان

### خلاص مطالب

### لغات مخصوص

انلجریک	گروپ دواهای انلجریک در پهلوی سایر تاثیرات و استفاده مشخص آن توسط افراد مسلکی، یک وصف مشترک و عمومی (ضد درد) دارند و به سبب همین تاثیر است از این دوا به طور وسیع در تمام امراض طبی استفاده میشود.
دوا های ضد درد	اهداف تحقیق: بررسی میزان استفاده ادویه توسط مردم عام، بررسی عوارض جانبی معمول از اثر مصرف زیاد انلجریک ها، مشخص کردن عوامل موثر در استفاده انلجریک، بررسی استفاده انلجریک ها در گروپ های سنی مختلف می باشد.
سو استفاده	روش تحقیق: با استفاده از میتود کمیتهی بشکل سروی و نسخه های مریضان این تحقیق انجام شده که در حدود ۶۰ نفر در این تحقیق اشتراک داشتند. این تحقیق در شهر کابل و در شفاخانه های تدریسی کدزی میوند و علی آباد در بخش های عاجل، مراقبت های ویژه، مریضان سر و پا، بستر و به صورت آنلاین با استفاده از میتود کمیتهی انجام یافته است.
عوارض جانبی	تحلیل ارقام: حدود ۴۰۶۰ نفر در تحقیق به شکل سروی انجام شد اشتراک داشتند؛ ارقام و داده های جمع آوری شده به شکل فیصدی نشان داده شده طوری که حدود ۲۷/۵ فیصد از مردم در مورد ادویه ضد درد مطالعه قبلی داشتند و بیشترین ادویه که مورد استفاده قرار گرفته پرستامول بوده که توسط ۵۱ درصد از افراد استفاده می شود و از میزان موثریت دوا به اساس فیصدی رضایت ۶۷/۵ فیصدی مردم گزارش شده است.
	نتیجه: بیشتر اشتراک کنندگان تحقیقی از موثریت آن رضایت داشته و به طور اوسط در مدت یک ماه پنج الی هشت تابلت آن را استفاده کرده اند. دریافت ها نشان می دهد بیشترین عارضه جانبی از مصرف بی مورد و خدسرانه انلجریک ها مشکلات معدوی معایی هستند که اکثر کشته نیست.
	استنتاج: بنابراین می توان گفت استفاده بیش از حد و بی مورد انلجریک بدون رهنمایی دکتر باعث مشکلات جدی نزد مریضان می شود. از آن جمله مشکلات کیدی، کلیوی، قرحات پیپتک و اعتیاد پیدا نمودن به دوا از نمونه های شایع و قابل ذکر است. از آنجایی که اکثریت مردم در مورد ادویه ضد درد از دانش و سواد کافی برخوردار نیستند و این ادویه قیمت نازلی هم در بازار داشته و دسترسی به آن نیز به راحتی امکان دارد زمینه استفاده بیش از حد این گروپ ادویه جات را به خوبی فراهم ساخته است.

### 4.1 معلومات عمومی

استرالیا تقریباً ۳،۶ درصد نفوس این کشور از این دوا استفاده سو می کنند که طبق گزارشات در ۱۲ ماه حدود ۱ الی ۲۰ نفر از باشندگان استرالیا به دلیل استفاده سو انلجریک فوت نموده اند<sup>55</sup>. همچنان مطابق یافته های یک تحقیق در کانادا حدود ۲۸۶۱ تن از باشندگان کانادا در اثر سوء استفاده اوبیات با مرگ روبرو شده اند. بر حسب این گزارش میزان مرگ و میر به دلیل استفاده سو از این دوا روزانه یک نفر از هشت نفر می باشد. این آمار نسبت به نرخ مرگ و میر همه روزه در اثر حوادث ترافیکی در کانادا به مراتب بیشتر است<sup>56</sup>.

از آنجایی که ادویه انلجریک در کاهش درد بسیار موثر است، به طور وسیع در مهار درد امراض مختلف مورد استفاده قرار می گیرد. از سوی دیگر استفاده بیش از حد این دوا نگرانی هایی همچون عوارض جانبی ناگوار را در پی دارد که مستلزم تحقیق همه جانبه و دوامدار است.

قرار تحقیقات عوارض جانبی استفاده زیاد انلجریک ها همچنان برای مریضان چالش ساز است. تحقیقی که در سال ۲۰۰۴ توسط Guadalupe R.P., Tito R.M., Scott B.C. و Charless S.C. در مورد استفاده و عوارض جانبی انلجریک ها روی ۳۰۲ کاهل اجرا شد، نشان میدهد؛ بیشتر از نصف (۶۸٪) از اشتراک کنندگان با عوارض جانبی روبرو شده اند که در این میان استفراغات ۳۴ فیصد، سرگیجی ۳۲ فیصد و دلبدی ۱۷ فیصد را به خود اختصاص داده اند<sup>57</sup>. اما مریضانی که از phenacetine یا از Acetaminophen بشکل روزانه استفاده می کرده اند با امراض مزمن کلیه روبرو شده اند. در حالی که تحقیق نشان می دهد استفاده روزانه Aspirin با ریسک بالا همراه نیست<sup>58</sup>.

در ایالات متحده آمریکا در سال ۲۰۱۹ تقریباً ۳۰۰ میلیون نسخه برای تجویز انلجریک توصیه شده که این رقم، حدود ۸۰٪ از اوبیات جهان را تشکیل می دهد. بر اساس آمارها بیشتر از ۵۰ هزار نفر به دلیل استفاده غیر معقول اوبیات جان خود را از دست داده اند. با وجودی که ایالات متحده تلاش جدی برای کاهش استفاده از اوبیات را عملی ساخته اما ارقام نشان می دهد حداقل در ۳۰ روز گذشته حداقل یک نوع از اوبیات توسط افراد مورد استفاده قرار گرفته که افزایش ۴۸،۶ درصدی در میزان استفاده ادویه ضد درد را نشان می دهد.

همینطور استفاده از دو یا سه نوع اوبیات در ۳۰ روز گذشته حدود ۲۴٪، استفاده از چهار و یا بیشتر از اوبیات در ۳۰ روز گذشته حدود ۱۲٪ افزایش بر اساس تحقیق نشر شده در مرکز امراض و کنترول ایالات متحده آمریکا نشان میدهد.

انلجریک دومین گروپ فارماکلوتیک یا ادویه جات برای کاهش درد است که بعد از ادویه ضد سرطان بیشترین مورد استفاده را در سراسر جهان تشکیل می دهد. در

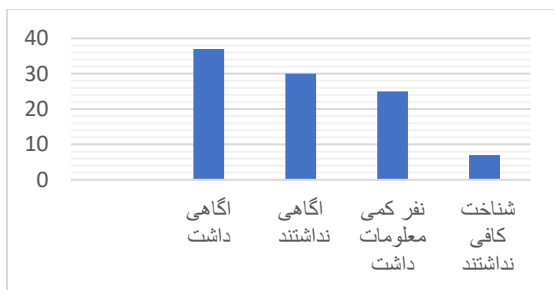
<sup>57</sup> Guadalupe, R.P., Tito, R.M., Scott, B.C., Charless S.C. (2004). Perception of Analgesic use. Journal of Pain and Symptoms Management 460. Texas USA

<sup>58</sup> Joana, Dale, Clarice and Veraman, (1989). Analgesic use and Chronic Renal Disease. New England Journal of Medicine 320. New England

<sup>55</sup> Toney, H.B. (2019, 2, 12). Opioid analgesic misuse and abuse: an Australian perspective. Journal of Pharmacy Practice and Research, 49. <https://onlinelibrary.wiley.com/doi/full/10.1002/jppr.1531>

<sup>56</sup> Belzak, L., MHS and Halverson, J. (2017). Public Health Agency in Canada. The opioid crisis in Canada, 38. [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6034966/pdf/38\\_6\\_2.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6034966/pdf/38_6_2.pdf)

## 4.2 اهداف تحقیق

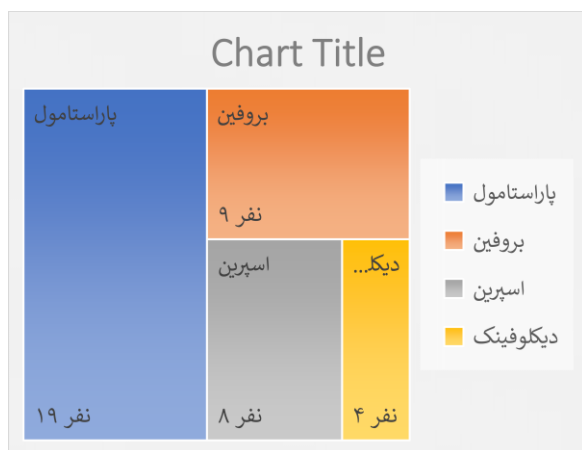


- 1) بررسی میزان مصرف انگلیزیک ها
- 2) بررسی عوارض جانبی معمول در اثر مصرف خودسرانه انگلیزیک ها
- 3) پیدا نمودن راه حل جهت جلوگیری از استفاده خودسرانه انگلیزیک ها
- 4) بررسی استفاده از انگلیزیک ها در گروه های سنی مختلف
- 5) تعیین میزان تقاضا مصرف کنندگان انگلیزیک در بازار

## 4.3 روش تحقیق

کدام نوع ادویه ضد درد بیشترین مورد استعمال را نزد اشتراک کنندگان تحقیق داشته است؛ از آن جمله ۱۹ تن پاراستامول، ۹ تن بروفین، ۸ تن از اسپرین و ۴ تن از دیکلوفینک استفاده می‌کردند. یعنی بیشتر اشخاص از پاراستامول و کمترین از دیکلوفینک استفاده کرده اند که به شکل فیصدی حدود ۵۰٪ افراد از پاراستامول و حدود ۲۰٪ فیصد از دیکلوفینک جهت کاهش درد استفاده می‌کردند. (جدول ۱-۲)

سوال ۲- از کدام يك از ادویه های ضد درد بیشتر استفاده نمودید؟



بحث اصلی این تحقیق استفاده سو یا استفاده زیاد و خودسرانه انگلیزیک ها (ادویه ضد درد) همراه با عوارض سو ناشی از آن در عضویت انسان میباشد. در انجام این تحقیق از میتودهای متفاوتی استفاده به عمل آمده؛ میتود کمی منجمله بشکل سروی به گونه آنلاین و مشاهده بصورت حضوری در شفاخانه های شهر کابل اجرا شده است. جمع آوری ارقام به صورت حضوری در شفاخانه تدریسی میوند و علی آباد شهر کابل در بخش های گوناگون شعبه عاجل و سراپا، سرویس بستر، وارد های داخله و جراحی عمومی در شفاخانه علی اباد، بخش بستر نوزادان و مراقبت های جدی داخله اطفال و سراپا شفاخانه میوند اجرا گردیده، هم چنان ارقام از طریق نظارت نسخه ها و دوسیه های مریضان نیز جمع آوری گردیده است.

جمع آوری ارقام در مدت چندین هفته بصورت مقطعی اجرا شد. انتخاب دوسیه ها و مریضان بصورت انتخابی و شامل تمام طبقات سنی جامعه از جمله، کهن سالان، اطفال، نوزادان و خانم ها، و آقایان بوده است. روش دیگر جمع آوری معلومات در این تحقیق، سروی میباشد. در میتود سروی سوالنامه هایی مناسب با تمام طبقات جامعه تهیه شد که این سوالنامه ها شامل ۱۰ سوال که تمام ابعاد تحقیق را در برگرفته و به شکل چهارجوابه تنظیم شده بود. به ۵۰ پرسشنامه به شکل آنلاین و به ۴۰ پرسشنامه به شکل حضوری پاسخ ارایه شد. پاسخ دهندگان به این پرسشنامه ها افراد تحصیل کرده جامعه را اعم از آقایان و خانم ها تشکیل داده و جمع آوری ارقام در مدت یک هفته تکمیل شده است.

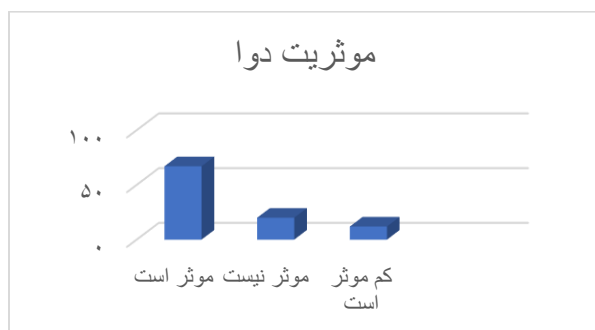
البته گفتنی است که برخی عوامل وجود داشت که مانع از دستیابی به اهداف مورد نظر در تحقیق واقع شدند؛ به طور مثال در قسمت معنادین که از بعضی مواد مخدر به عنوان مسکن استفاده می نمایند، موفق به اخذ معلومات نشدیم. در روش مشاهده نسخه و دوسیه های مریضان، متأسفانه برخی نسخه جات به خوبی قابل مطالعه و ارزیابی نبود چون کلمات بطور واضح از طرف داکتران که دوسیه را ترتیب داده بودند، نوشته نشده بود. هم چنان در قسمت سروی بعضی افراد به سوالنامه ها پاسخ های درست ارایه نکرده و در پاسخ های بعضی اشتراک کنندگان جواب های ناقص و غیر قابل قبول به مشاهده می رسید.

## 4.4 تحلیل ارقام

قرار جدول (۱-۱) اینکه مردم در مورد دواهای ضد درد تا چه اندازه معلومات دارند؛ حدود ۳۷/۵ فیصد اشتراک کنندگان در مورد دوا مطالعه قبلی داشته اند، ۳۰ فیصد اشتراک کنندگان مطالعه خاص در این زمینه نداشته و حدود ۲۵ فیصد از معلومات کمی برخوردار بودند، در عین حال ۷/۵ فیصد اصلا در مورد انگلیزیک ها معلومات نداشته اند.

سوال ۱: آیا تا به حال راجع به دواهای ضد درد مطالعه کردید؟

جدول ۱-۱

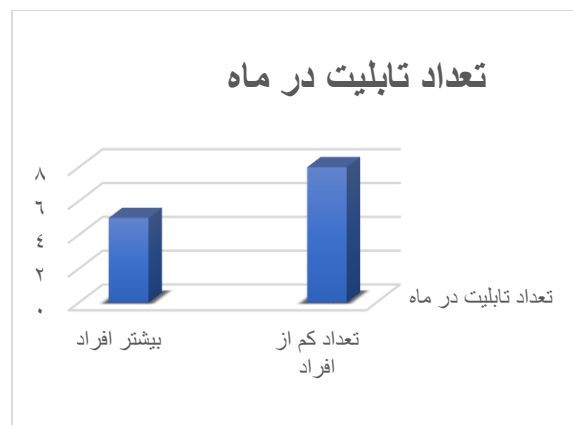


سوال ۳- آیا ادویه ضد درد موثر است؟

جدول (۱-۳)

ارقام بدست آمده نشان می دهد بیشتر افراد شامل تحقیق بیشتر از ۵ عدد تابلیت در یک ماه را مورد استفاده قرار داده و متبالی از اشتراك کنندگان بیشتر از ۵ تابلیت در یک ماه استفاده کرده اند، یعنی در مدت یک ماه بیشترین افراد که از صحت خوبی برخوردار بوده اند به صورت خود سرانه از ۵ یا بیشتر از ۵ تابلیت ضد درد استفاده کرده اند. به طور اوسط در یک ماه ۵ تا ۸ تابلیت به طور خودسرانه توسط افراد استفاده شده است.

سوال ۴- بطور تخمینی در یک ماه چند تابلیت استفاده میکنید؟

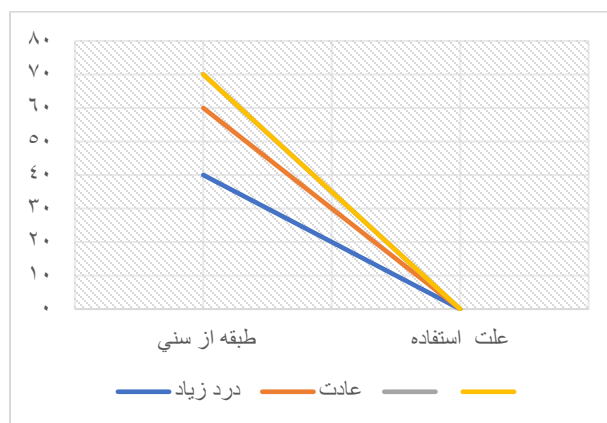


استفاده بیش از حد ادویه حات ضد درد بین جوانان نیز شایع بوده و بر اساس تحقیق سنین ۲۰ الی ۴۰ سال در درجه اول، اشخاص مسن و بالاتر از ۴۰ سال به درجه دوم و ۵ الی ۱۰ سال به درجه سوم و بالاخره کمترین استفاده آن توسط جوانها ۱۰-۲۰ سال بود. تحقیق نشان می دهد که ۵۰ درصد این افراد به علت داشتن درد و ۳۰ درصد از روی عادت ادویه ضد درد را مورد استفاده قرار می دهند.

جدول(۱-۶)

سوالات : مردم از چند سالگی به استفاده از ادویه ضد درد روی می آورند؟

آیا به دلیل کدام مشکل خاص از این ادویه استفاده میشود ؟



یافته های تحقیق نشان می دهد که ۶۰ فیصد افراد بعد از استفاده از ادویه ضد درد از دردهای معده در طولانی مدت گزارش داده و شکایت داشته اند. هم چنان میزان شکایات افراد از حالت گیجی در درجه دوم و حدود ۱۰ فیصد از شکایات را در برگرفته است در حالی که ۳۰ فیصد افراد از هیچ نوع عارضه ای شکایت نداشته و گزارشی نداده اند.

به طور مجموعی ۷۰٪ از مردم عوارض جانبی را تجربه کرده اند. آنچه با مشاهده نسخه های مریضان بدست آمده بیانگر اینست که در میان ۲۰ نسخه در ۱۸ نسخه ادویه انلجریک توصیه شده و در ۲ نسخه دیگر به علت نهای نبودن تشخیص و موجودیت مشکلات معده ادویه ضد درد توصیه نشده بود.

#### 4.5 نتایج تحقیق و بحث

بر اساس تحقیق در حدود سی و هفت فیصد (۳۷٪) مردم درمورد ادویه ضد درد یا انلجریک ها مطالعه کافی داشته و بیشتر از پنجاه فیصد اشتراك کنندگان در مورد ادویه ضد درد هیچ مطالعه یا معلومات کافی نداشته اند.

در میان ادویه های ضد درد بیشترین استفاده را استامینوفن یا به قول عموم مردم پرستامول داشته که حدود ۴۷٫۵ فیصد مردم از این ادویه استفاده می کنند و بعد از پرستامول، دیکلوفینک و ایبروفین در رده های بعدی مورد استفاده قرار می گیرند. در رابطه با موثریت ادویه انلجریک نیز بیشتر اشتراك کنندگان در این تحقیق از این ادویه راضی بوده و به طور اوسط در ماه ۵ الی ۸ تابلیت آن را مورد استفاده قرار داده اند که این مصرف کنندگان در سنین ۲۰ الی ۴۰ سال قرار می گیرند.

قرار تحقیقات قبلی که در سال ۲۰۱۵ در ایالت متحده امریکا صورت گرفته بود؛ دومین ادویه پر مصرف ادویه انلجریک یا ضد درد بوده<sup>59</sup>. اما در این تحقیق دیده شد که ادویه ضد درد بدون رهنمایی داکتر و بدون ضرورت جدی توسط افراد مورد استفاده قرار گرفته و ادویه ضد درد بلندترین میزان استفاده را در بین ادویه جات در افغانستان دارد.

قرار تحقیق دیگر که در کانادا(۲۰۱۲) انجام شده در اثر سوء استفاده اویپات ۲۸۶۱ تن از شهروندان آن کشور با مرگ روبرو شده اند و هر روز ۸ تن در اثر سوء استفاده اویپات جان خویش را از دست داده اند<sup>60</sup>.

نظر به این تحقیق محرزترین عارضه جانبی مصرف انلجریک مشکلات معنوی معایب است که اکثرا کشنده نیست ولی کیفیت پایین دوا نظر به کانادا و دیگر کشورها می تواند از دلایلی باشد که میزان مرگ و میر را افزایش داده و آن را در جمله عوارض جانبی این ادویه قرار دهد<sup>61</sup>.

تحقیقی که در سال ۲۰۰۴ در ۴ کشور اروپایی انجام شد نشان داد که

بیشترین عوارض جانبی این ادویه استفراغ، سرگیجی و دلبدی بوده که تا حد زیادی با یافته های تحقیق حاضر همخوانی دارد<sup>62</sup>.

با در نظر داشت این یافته ها به این نتیجه می رسیم استفاده بیش از حد انلجریک بدون رهنمایی داکتر باعث مشکلات جدی نزد افراد شده و اکثر این مشکلات به دلیل دانش ناکافی در مورد استفاده درست و عوارض جانبی دوا به وجود می آید. دلیل دیگر بروز این مشکلات این است ادویه ضد درد با قیمت نازل و به آسانی قابل دسترس بوده که این، خود زمینه استفاده بیش از حد این گروه ادویه را مساعد می سازد.

61 Alfred,R.L.,(2008).Addiction and Opiates(3rd).[https://books.google.com.af/books?hl=en&lr=&id=4kN\\_Vza2GQC&oi=fnd&pg=PR5&dq=info:Cc\\_PAMQP4VII:scholar.google.com/](https://books.google.com.af/books?hl=en&lr=&id=4kN_Vza2GQC&oi=fnd&pg=PR5&dq=info:Cc_PAMQP4VII:scholar.google.com/)

62 Guadalupe,R.P.,Tito,R.M.,Scott B.C.,Charless S.C,(2004).perception of Analgesic use.Journal of Pain and Symptoms Management 460. Texas USA

59 Irina,K.(2015,4,27).Americans consumes vast majority of opiates.CNBC. <https://www.cnb.com/2016/04/27/americans-consume-almost-all-of-the-global-opioid-supply.html>

60 Belzak,L.,MHSc and Halverson,J.,(2017).Public Health Agency in Canada.The opioid crisis in Canada,38.[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6034966/pdf/38\\_6\\_2.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6034966/pdf/38_6_2.pdf)

## 4.6 پیشنهادات

- 1) استفاده زیاد این ادویه بیشترین مشکلات معدوی و در درجه دوم و سوم مشکلات کبدی و کلیوی را به وجود می‌آورد لذا پیشنهاد می‌شود تنها در موارد ضروری از این ادویه استفاده صورت بگیرد.
- 2) بدون توصیه داکتر ادویه انلجریک گرفته نشود.
- 3) برای کاهش درد از روش های دیگری مثل نوش آب گرم ماساژ استراحت و دمنوش های خانگی استفاده شود
- 4) کوشش شود تا مقدار مناسب دوا را مورد استفاده قرار دهند تا از بروز عوارض جانبی جلوگیری شود.
- 5) در صورت بروز عوارض جانبی باید گرفتن ادویه قطع گردد.
- 6) کمپاین آگاهی دهی در رابطه با استفاده درست انلجریک برگزار شود.
- 7) در قسمت دسترسی به ادویه جات تکسین دهنده به خصوص پرستامول برخی محدودیت ها وضع گردد.

## 4.7 خلاصه

این تحقیق که روی موضوع استفاده وافر و خودسرانه انلجریک ها (ضد درد) و عوارض جانبی آن بالای عضویت انسان روی یک تعداد اشخاص مشخص در چندین گروه سنی خصوصا مریضان شفاخانه های تدریسی میوند، علی آباد و همچنان به شکل آنلاین صورت گرفت نشان می‌دهد که اکثریت اشخاص در مورد انلجریک ها معلومات کافی نداشته اند. تحقیق نشان داد که تنها ۳۷٪ از اشتراک کنندگان در مورد این دوا مطالعه داشته اند. بیشتر از نصف اشخاص اشتراک کننده جهت کاهش درد از اسپتامینوفن یا پاراستامول و در درجات بعدی دیکلوفینک و ایبوپروفین مورد استفاده این افراد بوده است. ادویه ضد درد بیشتر توسط افراد بین سنین ۲۰ الی ۴۰ سال بیشتر مورد استفاده قرار گرفته و در یک ماه از ۵ الی ۸ تابلیت توسط آنها استفاده می‌شود. همچنان عوارض جانبی مشاهده شده در نزد مصرف کنندگان انلجریک ها در قدم اول مشکلات معدوی به درجه دوم و سوم مشکلات کلیه و کبدی بوده و در کنار آن از دلیدی ها و استفراغات بوده است.

4.8 مشارکت خاص نویسنده<sup>63</sup>



## Authors' biography

**Zainab Hashimi<sup>1</sup>** is studying at Kabul University of Medical Sciences, faculty of Curative Medicine and American University of Afghanistan, STM Division. She has worked as HR/Admin volunteer at Bu Ali Rehabilitation and Aid Network (BARAN) and served as Deputy Campus Director at KUMS Hult Prize as part of extracurricular activity. She has been published a book with title of Medical multiple choice questions bank (MCQ), Medsina, 2021 along with her associate authors.

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**Manizha Noorandish<sup>4</sup>** is studying at Kabul University of Medical Sciences, faculty of Curative Medicine earning MD degree. She worked with the Hult Prize KUMS as a Communication manager, served as a head of Training and Medical Education Committee at AIMA organization and has volunteering work experience at different social organizations as part of her professional career.

**Tooba Halim<sup>5</sup>** is studying at Kabul University of Medical Sciences, faculty of Curative Medicine earning MD degree. Previously she has served as a Design Manager at Hult Prize (KUMS) as part of her extracurricular activities.

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**Hedayatullah Ehsan<sup>7</sup>** graduated from Kabul University of Medical Sciences as a Dentist from Faculty of Dentistry and studies West African Institute of Public Health. He has published papers with the title of "Does Islam Promote Violence" and "Addressing of Mental Problems in Afghan Young People". Ehsan earned more than 25 certificates in his professional career path including but not limited to Health System Strengthening Certificate from the University of Melbourne, Appreciation and Participation Certificate Cyber patient research from University of British Columbia, Incidence Management System, SARS-Facilities Certificate, UN CT-COVID 19 Preparedness and Response EN Certificate from World Health Organization, Wellness and Resilience for Frontline Workers and Managers Certificate from Kaya Academy, certificate in Introduction to the Core Humanitarian Standard, Humanitarian Leadership Academy, Two Model United Nation Participation Certificate from International MUN.

**Mashal Azami<sup>8</sup>** is studying faculty of Stomatology/ Dentistry at Kabul University of Medical Sciences earning title of DMS as a Dentistry Doctor.

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***Fresha Lewal***<sup>15</sup> graduated from medicine faculty of Kabul University of Medicine Sciences

***Shiba Rasa***<sup>16</sup> graduated from medicine faculty of Kabul University of Medicine Sciences.

***Rana Munir***<sup>17</sup> graduated from medicine faculty of Kabul University of Medicine Sciences

*Application:*

*Please apply via email [communications@orodaf.org]*

*Eligibility:*

- 1) Must be natural science student*
- 2) Fluent in English and national languages*
- 3) Showing strong commitment toward knowledge production and research and development.*

*We accept new applications only during months of August till the end of September.*

# About TSP

Organization for Rehabilitation and Optimal Development (OROD) is a non-governmental, non-profit and non-political organization, established in 2017, registered with the Ministry of Economics of Afghanistan as a national NGO and is one of the signatories of the codes of conducts for NGOs engaged in Humanitarian action.

OROD conducts informative research and is the basis by which it develops effective intervention strategies for influencing behavior change and for designing, positioning and promoting innovative activities. It helps to identify and understand the characteristics, interests, behaviors and needs of target populations, which influences decisions and actions. Informative research is integral in developing and improving programs.

TSP is an extension of OROD's commitment toward establishing values through applied research in the community whereby accurate information is disseminated. The project seeks to promote the concept of evidence-based advocacy to influence policies.