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Etiological Factors and Patterns of Maxillofacial Trauma Among School-Going Children: A Cross-Sectional Study Conducted at Khyber College of Dentistry, Peshawar, Pakistan

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ABSTRACT

Maxillofacial trauma, such as superficial cuts and bruises, lacerations, and facial bone fractures is a common health concern among youngsters. The current cross-sectional study sought to determine the prevalence and pattern of maxillofacial trauma in school-aged children (5-16 years) with a history of trauma. The study was conducted at the oral and maxillofacial surgery department, Khyber College of Dentistry, Peshawar. Firearm injuries and maxillofacial trauma, older than 15 days were excluded from the current study, whether treated or untreated. About 153 school-going children of both genders were enrolled consecutively by using non-probability sampling technique. To determine the etiology and nature of the trauma, radiographic confirmation was performed including CT-Scan and X-rays, by utilizing many imaging modalities and comprehensive clinical assessments of the craniofacial region. The data was analyzed by using Statistical Package for Social Sciences (SPSS) version 22.0. The results of indicated that fall is the leading cause of maxillofacial injuries among school-aged children. A total of 52 (16.3%) patients had maxillary fractures, 30 (19.6%) had mandibular fractures, 30 (19.6%) had zygomatic-maxillary complex fractures, 23 (15%) had dent alveolar injuries, and 45 (29.4%) had soft tissue injuries. The current study determined that soft tissue injuries are most prevalent among school-aged children, followed by mandibular, zygomatic-maxillary complex, and maxillary fractures. To investigate the pattern and etiology of maxillofacial injuries, the data was stratified by age, gender, and type of school. Based on the findings, implementation of effective strategies was recommended for preventing and managing the maxillofacial trauma in school-aged children. Moreover, the findings also highlighted the importance of targeted interventions to reduce the incidences and severity of maxillofacial trauma among this vulnerable population.

Keywords: dental trauma, mandibular fractures, maxillary fractures, road traffic accidents

1. INTRODUCTION

Facial fractures may occur due to various reasons associated with the

participation in sports-related activities including contact between players, such as head, fist, or elbow. Moreover, they may

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also occur due to the contact with equipment like balls, pucks, or handlebars or with the environment, obstacles, or playing surfaces. Direct body contact is responsible for most sports-related injuries and soft tissue injuries are often linked to head and neck region [1]. Sports, such as hockey, football, and baseball have been found to contribute significantly to facial injuries among young adults [2]. Fractures involving the facial region can potentially co-occur with injuries to the head and cervical spine [3, 4]. Boden and colleagues conducted a comprehensive review of catastrophic injuries related to high school and college baseball, revealing an incidence of 1.95 direct catastrophic injuries per year, encompassing severe head injuries, cervical injuries, and associated facial fractures [4]. Schulz observed in 1977 that athletic injuries constitute 11% of all facial fractures and that facial injuries manifest in 2% of all athletes [5].

In a more recent analysis, Reehal reported that facial fractures comprises of 4-18% of all sports-related injuries [6]. A comprehensive review conducted by Romeo on facial fractures among athletes involved in sports reported that sports-related activities contribute to 3-29% of all facial injuries and 10-42% of all facial fractures [7]. Tanaka et al. demonstrated that sports-related activities account for 10.4% of all maxillofacial fractures [8]. Laskin reported in a separate study that many individuals including children, suffered from facial trauma during their involvement in athletic activities, estimating the number to be approximately 250,000 [9]. Hwang and colleagues' review revealed that athletes aged between 11 and 20 years accounted for the highest proportion (40.3%) of sports-related facial bone fractures [1]. According to a study,

wearing suitable head and facial protection could prevent over 100,000 injuries related to sports [9].

A study of pediatric sports-related facial fractures identified the most common fractures in the cohort as orbital, mandibular, nasal, and maxillary. Fractures were most often related to participation in baseball/softball and bicycling [10]. In a retrospective analysis, a significant male predominance (13.75:1) was observed among athletes affected by sports-related facial bone fractures. Among the identified sports, such as soccer (38.1%), baseball (16.1%), basketball (12.7%), martial arts (6.4%), and skiing/snowboarding (4.7%) were found to be most commonly associated with facial fractures [1]. Approximately, 75% of all facial fractures involve zygoma, mandible, and nose [11]. Mandibular fractures are most commonly caused by sports' participation (31.5%), followed closely by motor vehicle accidents (27.2). In recreational baseball and softball, facial fractures predominantly involve zygoma or zygomatic arch, followed by temporo-parietal skull fractures and orbital blow-out fractures [12]. Several medical literature reports suggested that the nasal bones are the most frequently fractured facial bones. However, many patients with nasal fractures may not seek medical attention, or their injuries may be treated in the outpatient setting, leading to a potential underestimation of the true incidence and impact of nasal fractures [3]. Nasal bones are probably more susceptible to fractures because they require comparatively lesser force to fracture than other facial bones [13]. Orbital fractures are more prevalent in adolescent and young adult males with the mean age being 32 years for adult males and 12.5 years for children, primarily affecting the boys. Besides sports-related

injuries, motor vehicle collisions, assaults, and occupational injuries are the primary causes of orbital fractures [14]. Resultantly, one of the primary purposes of the current research was to establish the factors that contribute to the development of maxillofacial trauma in school-aged children.

2. METHODOLOGY

The current descriptive cross-sectional study was conducted between 1st March and 1st September, 2021 at the Department of Oral and maxillofacial Surgery, Khyber College of Dentistry, Peshawar. This study aimed to establish the incidence, etiology, and pattern of maxillofacial trauma in school-aged children (5-16 years) with a history of trauma. The sample size was determined by using a sample size calculator from the World Health Organization (WHO) with 3% accuracy and a 95% confidence interval, based on a prevalence of 3.7%. The research comprised of one hundred fifty-three pupils of both male and female genders. The data was gathered by using non-probability, consecutive sampling technique. The exclusion criteria included gunshot wounds and treated or untreated maxillofacial trauma older than 15 days. This research may aid in developing effective ways to avoid and treat maxillofacial trauma in school-aged children.

The study received approval from the institution's ethical review committee and all patients and their guardians provided informed consent before participating in it. Mandibular and maxillary fractures, zygomaticomaxillary complex fractures, naso-ethmoidal fractures, dentoalveolar injuries, and soft tissue injuries were evaluated to assess the cause and pattern of trauma to the maxillofacial area. Several radiographic confirmation procedures were

utilized. All the data gathered by first-year postgraduate FCPS residents was assessed by a senior consultant/supervisor from the College of Physicians and Surgeons of Pakistan (CPSP). To prevent bias and confounders, exclusion criteria was rigorously adhered to.

The data for current study was analyzed by using SPSS version 22.0. In school-going children, frequency and percentage of qualitative factors, such as gender, pattern of fractures and injuries, and the cause of trauma were calculated. For numerical factors, such as age, mean and standard deviation were determined. By using a chi-square test, the pattern and cause of maxillofacial trauma in school-aged children were stratified according to age groups, gender, and school type (private or public). A 95% confidence interval (CI) was used and a p-value of less than 0.05 was considered as indicative of statistical significance. To further display the data, tables and charts were used to convey the results. The data shed light on the occurrence and distribution of maxillofacial trauma in school-aged children and may be utilized to design ways to avoid and manage these injuries.

3. RESULTS

A total number of 153 patients visited the Khyber College of Dentistry in Peshawar's Department of Oral and maxillofacial Surgery from Peshawar and peripheries, as shown in Fig 1. The average, standard deviation (SD), frequency distribution of a given variable, and percentages and frequencies of three categorical variables namely age, gender, and school setting were determined. The variable's mean was 9.75 ± 2.33 . Most participants, for instance 91 (59.5%), were younger than 10 years, while 62 (40.5%) were older than 10 years. There were 71

male participants which makes up 46.4% of the total and 82 female participants which makes up 53.6% of the total. Most participants, 83 (54.2%), attended public schools, while 70 (45.8%) attended private schools. The fact that the variable has a mean value of 9.75 ± 2.33 shows that it is normally distributed with most individuals scoring within a very narrow range. The

nearly equal gender distribution may imply that gender was not a prominent role in the study or that the study sought to guarantee that both genders were equally represented. The greater proportion of participants attending public schools may reflect the demographics of the surrounding region or the sample population's access to public schools, as seen in Table 1.

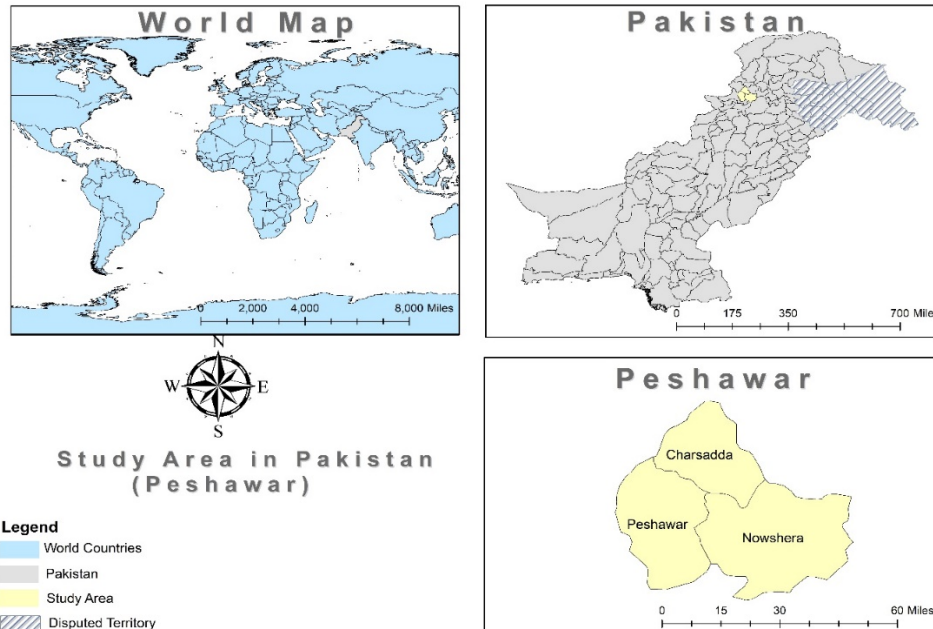


Figure 1. Study Area Showing Peshawar and Peripheries in Khyber Pakhtunkhwa (KPK), Pakistan.

Table 1. Demographics of Children who Participated in the Study.

Mean & SDs		9.75 (2.33)	
		Frequency	Percent
Age groups	≤ 10 Years	91	59.5%
	> 10 Years	62	40.5%
Gender	Male	71	46.4%
	Female	82	53.6%
Type of School	Public	83	54.2%
	Private	70	45.8%

The etiologies of maxillofacial trauma may be traced back to various causes including collisions with motor vehicles,

assaults, or other acts of violence, falls, and injuries sustained while participating in sports. According to the findings, assaults

and other forms of physical violence were the leading causes of injuries, accounting for 35.9% of all cases. This was followed by injuries sustained during sports (30.7%), falls (17%), and automobile accidents (16.3%). According to these findings, efforts should be undertaken to prevent and

eliminate injuries connected to violence and sports, as they are the key contributors to maxillofacial trauma. Additionally, road safety measures should be emphasized so that the number of injuries could be sustained due to road traffic accidents, as shown in Figure 2.

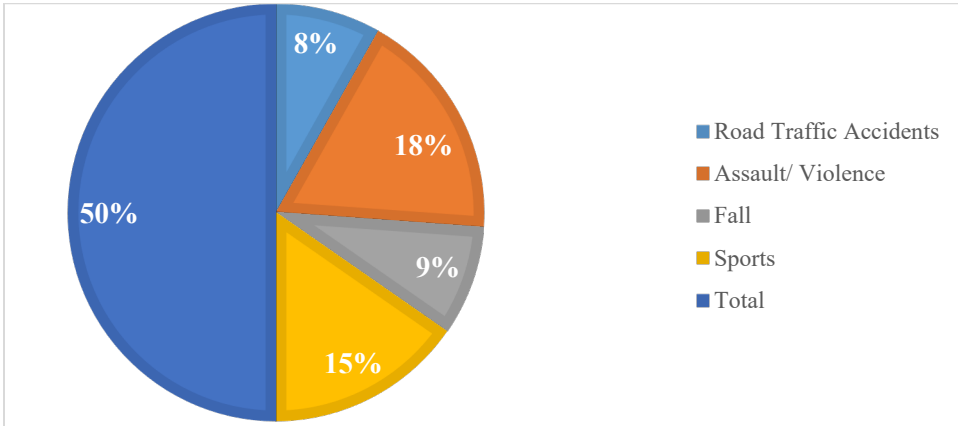


Figure 2. Distribution of Different Etiologies of Maxillofacial Trauma

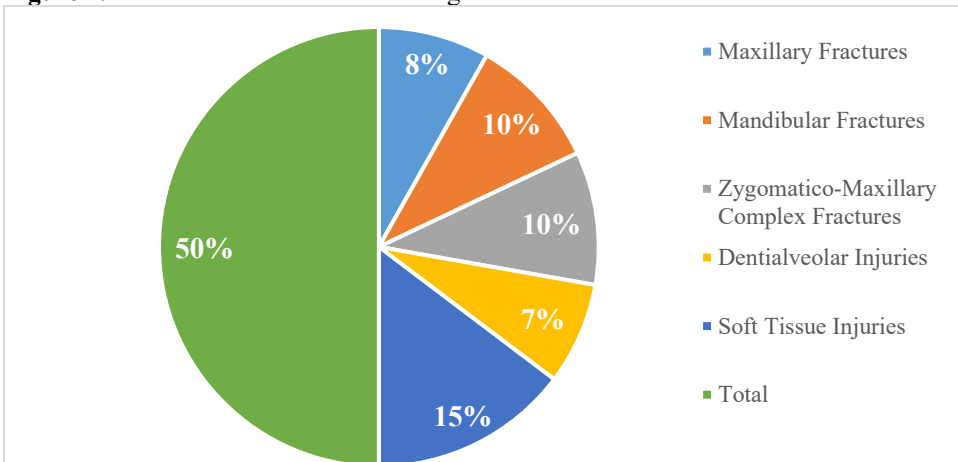


Figure 3. Frequencies of Maxillofacial Fractures.

According to the findings presented in Fig. 3, the kind of damage that occurred most frequently was tearing of the soft tissue (29.4%), followed by fractures of the zygomatic-maxillary complex and the mandible (19.6% each), fractures of the maxilla (16.3%), and injuries to the dent

alveolar (15.0%). Soft tissue injuries, including lacerations and contusions, are frequently seen in maxillofacial trauma and may potentially cause severe morbidity and psychological discomfort. Zygomatic-maxillary complex and mandibular fractures are two types of bone injuries

most frequently recorded. These injuries can lead to functional impairment, malocclusion, and cosmetic deformity.

Table 2 suggests that the pattern of maxillofacial trauma varies significantly between two age groups. For instance, the proportion of maxillary fractures was

significantly higher in children under 10 years of age than those above 10 years (20.9% vs. 9.7%, $p=0.025$). Similarly, the proportion of mandibular fractures was higher in the younger age group (19.8%) as compared to the older group (19.4%, $p=0.032$).

Table 2. Stratification of Pattern of Maxillofacial Trauma with Age Groups ($n=153$)

Pattern of Maxillofacial Trauma	Age Groups		Total	<i>p-value</i>
	≤ 10 Years	> 10 Years		
Maxillary Fractures	19	6	25	0.025
	20.9%	9.7%	16.3%	
Mandibular Fractures	18	12	30	0.032
	19.8%	19.4%	19.6%	
Zygomatic-Maxillary Complex Fractures	17	13	30	0.044
	18.7%	21.0%	19.6%	
Dentoalveolar Injuries	14	9	23	0.071
	15.4%	14.5%	15.0%	
Soft Tissue Injuries	23	22	45	0.051
	25.3%	35.5%	29.4%	
Total	91	62	153	
	100.0%	100.0%	100.0%	

Table 3. Stratification of Pattern of Maxillofacial Trauma with Gender ($n=153$)

Pattern of Maxillofacial Trauma	Gender		Total	<i>P-value</i>
	Male	Female		
Maxillary Fractures	8	17	25	0.024
	11.3%	20.7%	16.3%	
Mandibular Fractures	9	21	30	0.026
	12.7%	25.6%	19.6%	
Zygomatic-Maxillary Complex Fractures	17	13	30	0.051
	23.9%	15.9%	19.6%	
Dentoalveolar Injuries	12	11	23	0.041
	16.9%	13.4%	15.0%	
Soft Tissue Injuries	25	20	45	0.064
	35.2%	24.4%	29.4%	
Total	71	82	153	
	100.0%	100.0%	100.0%	

Table 3 indicates that females had a higher proportion of maxillary and dentoalveolar fractures, while males had a higher proportion of mandibular and zygomatic-

maxillary complex fractures. Specifically, maxillary fractures were observed in 20.7% of females as compared to 11.3% of males, while mandibular fractures were observed

in 25.6% of females as compared to 12.7% of males. In contrast, zygomatic-maxillary complex fractures were more common in males, with 23.9% of males and 15.9% of affected females. Dent alveolar injuries were also common in females, with 16.9% of males and 13.4% of females affected. Soft tissue injuries were observed in both genders, with 35.2% of males and 24.4% of affected females. These findings highlighted the importance to consider gender as a potential modifier of maxillofacial trauma in school-going children.

Table 4 signifies 83 patients who attended public schools and 70 patients who attended private schools. The frequency and percentage of each type of maxillofacial trauma were calculated separately for each group. The results indicated statistically significant

differences in the distribution of maxillofacial trauma between public and private school attendees. Specifically, public school students had a higher frequency of maxillary fractures (13.3% vs. 20.0%, $p=0.034$), mandibular fractures (19.3% vs. 20.0%, $p=0.028$), and zygomatic-maxillary complex fractures (22.9% vs. 15.7%, $p=0.021$) as compared to private school students. However, the frequency of dent alveolar and soft tissue injuries did not significantly differ between two groups. These findings suggested that there may be a relationship between the type of school attended by the patient and the pattern of maxillofacial trauma experienced. More research is needed to explore the potential reasons for these differences and to develop targeted interventions in order to reduce the incidences of maxillofacial trauma in school-going children.

Table 4. Stratification of Pattern of Maxillofacial Trauma with Type of School ($n=153$)

Pattern of Maxillofacial Trauma	School		Total	<i>p-value</i>
	Public	Private		
Maxillary Fractures	11 13.3%	14 20.0%	25 16.3%	0.034
Mandibular Fractures	16 19.3%	14 20.0%	30 19.6%	0.028
Zygomatic-Maxillary Complex Fractures	19 22.9%	11 15.7%	30 19.6%	0.021
Dentoalveolar Injuries	13 15.7%	10 14.3%	23 15.0%	0.024
Soft Tissue Injuries	24 28.9%	21 30.0%	45 29.4%	0.092
Total	83 100.0%	70 100.0%	153 100.0%	

Table 5 presents the stratification of the etiology of maxillofacial trauma with age groups among 153 patients. The study determined that assault/violence was the leading cause of maxillofacial trauma, with a total of 55 cases accounting for 35.9% of all the cases. Road traffic accidents and

sports-related injuries were the second and third most common causes, accounting for 25 and 47 cases, respectively. The age group of patients was identified to be significantly associated with the cause of maxillofacial trauma, with assault/violence being the most common cause among

patients above 10 years. While, road traffic accidents were more common among patients under 10 years of age. Interestingly, falls were found to be more common among the younger age group than the older age group. Overall, the

results provided important insights into the etiology of maxillofacial trauma and may help in guiding the development of targeted preventive measures for different age groups.

Table 5. Stratification of Etiology of Maxillofacial Trauma with Age Groups ($n=153$)

Etiology of Maxillofacial Trauma	Age Groups		Total	<i>p-value</i>
	≤ 10 Years	> 10 Years		
Road Traffic Accidents	10 11.0%	15 24.2%	25 16.3%	0.032
Assault/Violence	34 37.4%	21 33.9%	55 35.9%	0.062
Fall	17 18.7%	9 14.5%	26 17.0%	0.071
Sports	30 33.0%	17 27.4%	47 30.7%	0.042
Total	91 100.0%	62 100.0%	153 100.0%	

Table 6. Stratification of Etiology of Maxillofacial Trauma with Gender ($n=153$)

Etiology of Maxillofacial Trauma	Gender		Total	<i>p-value</i>
	Male	Female		
Road Traffic Accidents	12 16.9%	13 15.9%	25 16.3%	0.042
Assault/Violence	21 29.6%	34 41.5%	55 35.9%	0.052
Fall	14 19.7%	12 14.6%	26 17.0%	0.052
Sports	24 33.8%	23 28.0%	47 30.7%	0.054
Total	71 100.0%	82 100.0%	153 100.0%	

Table 6 shows that road traffic accidents accounted for 16.9% of maxillofacial injuries in males and 15.9% in females, with a statistically significant difference ($p=0.042$). Assault/violence was found to be the most common cause of maxillofacial trauma in both genders, with 29.6% of males and 41.5% of females having suffered injuries due to this cause. Moreover, falls and sports-related injuries were also among the significant causes of

maxillofacial trauma, accounting for 19.7% and 33.8% of male injuries and 14.6% and 28.0% of female injuries, respectively. Overall, the study found no statistically significant differences in the etiology of maxillofacial trauma between males and females, with a p -value of 0.052. This information can be useful in developing the strategies to prevent and manage maxillofacial injuries, especially for high-risk groups.

Table 7 shows that the most common causes of maxillofacial trauma were assault/violence (35.9%), followed by road traffic accidents (16.3%), falls (17.0%), and sports-related injuries (30.7%). After conducting the data stratification of age groups, it was observed that assault/violence was the most common cause of maxillofacial trauma in both age groups, with a higher proportion in patients over 10 years old (33.9%). On the other hand, when the data was stratified according to gender, assault/violence was found to be more frequent in females

(41.5%), whereas road traffic accidents were more frequent in males (16.9%). Finally, when the data was stratified according to the type of school, assault/violence was found to be more common in public schools (38.6%), whereas sports-related injuries were more common in private schools (32.9%). These findings suggested that different factors may influence the etiology of maxillofacial trauma and that targeted preventive measures are necessary to reduce the chances of such injuries in different populations.

Table 7. Stratification of Etiology of Maxillofacial Trauma with Type of School (n=153)

Etiology of Maxillofacial Trauma	School		Total	p-value
	Public	Private		
Road Traffic Accidents	14 16.9%	11 15.7%	25 16.3%	0.023
Assault/Violence	32 38.6%	23 32.9%	55 35.9%	0.025
Fall	13 15.7%	13 18.6%	26 17.0%	0.021
Sports	24 28.9%	23 32.9%	47 30.7%	0.024
Total	83 100.0%	70 100.0%	153 100.0%	

4. DISCUSSION

Children who tend to experience trauma are at considerable risk of morbidity and death, which is a serious concern. Maxillofacial injuries in children are uncommon, although they can negatively affect their functionality and looks. Substantial research has been conducted to comprehend the prevalence and nature of these injuries in the pediatric population. According to a study, about 91 patients (59.5%) were under 10 years of age, while 62 patients (40.5%) were over 10 years. The patients were 9.75 2.335 years old on average. There were 82 (53.6%) female patients and 71 (46.4%) male patients, comparable to the sample utilized in a prior

study in which Pakistani children aged 0 to 12 were found to have an average age of 6.53.72 years [15].

The distribution of facial injuries by gender revealed a higher rate of incidence among boys than girls, which is in line with the results of previous studies. Several earlier investigations have reported a male predominance in facial trauma, with sex ratios ranging from 1.6:1 to 3.3:1 [16–19]. The sample showed an increasing male-to-female ratio with age, consistent with previous studies, from 1.1:1 in children under 10 years old to 1.6:1 in children over 10 years old [1, 2]. A study has suggested that smaller discrepancy in preschool children could be attributed to age-related

activities, typical of childhood [2]. The higher rate of incidences pertaining to facial injuries in older children and adolescents among males may be attributed to their greater involvement in outdoor activities, sports, and violence. Additionally, research has suggested that boys are generally more aggressive than girls, which may increase their likelihood of sustaining injuries [3].

Boden reported that about 1% of all facial bone fractures occur before 6 years of age, while 5% occur under 12 years [4, 5, 17]. Maxillofacial injuries tend to surge as children enter school age. Studies investigating major and minor orofacial injuries have shown a relatively higher frequency of trauma in preschool children as compared to their school-age counterparts [20]. The current study attempted to identify the origin of patients and determined that 54.2% (83) of them were from public schools, while the remaining 45.8% (70) were from private schools. Furthermore, the causes of injuries were also analyzed and it was discovered that 16.3% (25) of the patients suffered from road traffic accidents, 35.9% (55) experienced assault or violence, 17.0% (26) had fallen, and 30.7% (47) incurred sports-related injuries. Pertaining to the types of fractures, it was observed that 16.3% (52) of the patients had maxillary fractures, 19.6% (30) had mandibular fractures, 19.6% (30) had zygomatic-maxillary complex fractures, and 15.0% (23) had dent alveolar injuries. Moreover, 29.4% (45) of the patients suffered from soft tissue injuries. The current study revealed a slightly higher susceptibility (54.6%) to facial bone fractures in children aged between 7-12 years as compared to those aged between 0-6 years and no significant difference ($P>0.05$) was observed between these two age groups. These findings are

consistent with the findings from several previous Indian studies and are also similar to certain studies conducted in other countries [3, 10, 11, 12]. In their respective studies, Reyes and Neuman et al. reported an increased frequency of maxillofacial injuries among children aged between 6-12 years and older [21, 22].

Several factors, including socioeconomic status, cultural background, geographical location, and the age group under study, influence the frequency and pattern of facial fractures. The age of sample population plays a crucial role in determining the prevalence of facial fractures. A study conducted on 256 Brazilian patients, aged between 5-17 years with maxillofacial injuries, reported a high incidence rate of 70% for facial fractures. Similarly, studies conducted in Nigeria reported a 32% incidence rate of facial fractures in children aged 15 years and younger. These findings highlight the importance of considering age-related factors while investigating the epidemiology of facial fractures [19, 23, 24]. In an Indian pediatric sample under 12 years of age, facial fractures were observed in 77 out of 95 patients (81%). Similarly, a recent study conducted in Pakistan reported a high incidence rate, that is, (88%) of facial fractures in children aged 0-14 years [4].

Out of 153 patients who participated in the current study, it was determined that more than half (54.2%) came from public schools, while the remaining 45.8% came from private schools. Pertaining to the types of injuries, 25 (16.3%) patients suffered from road accidents, 55 (35.9%) patients suffered assault or violence-related injuries, 26 (17.0%) patients experienced falls, and 47 (30.7%) patients incurred sports-related injuries. Interestingly, previous research has indicated that falling from height is the primary cause of facial

trauma, accounting for 56.5% of cases in the current study's sample which is consistent with Kumaraswamy et al.'s findings [25]. Diverse studies have suggested falls as the major cause of facial trauma. In contrast, some studies have suggested that motor vehicle accidents (MVAs) are the most frequent cause of oral and maxillofacial trauma, specifically in adolescents. These findings may be due to the differences in the characteristics of the studied populations [2, 3, 5, 12, 23, 24, 26]. Young children are more prone to low velocity/energy traumas, such as falls, since their motor abilities are still developing which makes them more likely to sustain injuries. Children are likelier to experience high energy/velocity traumas since the time when they start their school and participate in outdoor activities, such as MVA, bicycle accidents, sports-related injuries, and trauma from tube well handles. Despite these dangers, it was determined that assault and other forms of interpersonal violent acts only accounted for 1.3% of injuries in the sample. This result is much lower than the rates reported in most of the other studies in the literature. However, it is interestingly comparable with the studies of a similar kind carried out in Austria (3.9%) and Nigeria (3.8%). Overall, it is critical to understand the possibility of low and high-energy/velocity traumas in kids and to take proper precautions to avoid and treat injuries [13, 16, 24, 27].

The findings indicated that 153 individuals had their severe facial injuries examined. These injuries included 45 patients (29.4%) with soft tissue injuries, 23 patients (15.0%) with dent alveolar injuries, 52 patients (16.3%) with maxillary fractures, 30 patients (19.6%) with mandibular fractures, and 30 patients (19.6%) with zygomatic-maxillary complex fractures. Surprisingly, the current

study indicated that soft tissue injuries were greater (29.4%) than other maxillary and mandibular fractures (16.3% and 19.6%, respectively). These results supported earlier researches and showed that soft tissue injuries are a frequent and important feature of severe face injuries [28]. In the current study's sample, perioral or lip injuries were the most common among soft tissue injuries. This finding is consistent with a study conducted by Yang et al. which reported that soft tissue injuries are frequently observed in the lip region due to mandible's prominence. Dent alveolar fractures accounted for 23 cases (15.0%) in this sample which is similar to the results reported by Gassner et al. (15.7%) [19, 20, 29].

The current study has some limitations. Firstly, the cross-sectional design and relatively small sample size limits the findings' generalizability and causal inference. Secondly, the treatment outcomes were not examined due to the short duration of the study period. Thirdly, this study was conducted in a single center that included referred patients who visited the outpatient department directly, which may introduce selection bias. Fourthly, the severity and the persistence of nerve damage could not be assessed due to a lack of follow-up. Therefore, it could not be determined conclusively whether these nerve deficits were temporary or permanent.

4.1. Conclusion and Recommendations

The most common pattern of injuries observed in school-aged children included a fracture to the maxillary bone, followed by a fracture to the mandibular bone, then a fracture to the zygomatic-maxillary complex,. Men tend to sustain majority of soft tissue injuries. Assaults and other forms of violence were the most prevalent

cause of injury, followed by injuries sustained in sports and motor vehicle accidents. The current study emphasized the government to spread awareness amongst the masses through print, electronic, and social media for abiding by traffic rules and to impose strict law and order coupled with the adoption of precautionary measures during sports activities. Eventually, such unpleasant incidents and accidents could be prevented or at least minimized which would reduce traumas in children in local population.

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