

STUDY AND ASSESSMENT OF THE LEVEL OF DOMESTIC
TRAUMATISM AMONG SCHOOL-AGED CHILDREN IN THE KHOREZM REGION

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Abstract: Childhood injuries are a serious global issue and one of the leading causes of mortality and disability among children. This scientific article examines and evaluates domestic injuries among school-age children based on the example of the Khorezm region and discusses the obtained data.

Keywords: injury, domestic injuries, social protection system, prevention, disability.

Аннотация: Детские травмы являются серьезной глобальной проблемой и одной из ведущих причин смертности и инвалидности среди детей. В данной научной статье рассматриваются и оцениваются бытовые травмы среди школьников на примере Хорезмского региона, а также анализируются полученные данные.

Ключевые слова: травма, бытовые травмы, система социальной защиты, профилактика, инвалидность.

Relevance of the problem: Currently, injuries among children (such as falls, burns, traffic accidents, and poisoning) are widespread and require numerous medical interventions each year. Statistics show that accidents and injuries claim the lives of hundreds of thousands of children annually or leave them with disabilities. As a result, families may suffer significant financial and emotional burdens, medical expenses increase, and the overall quality of the child's future life declines. To reduce childhood injuries, it is essential to implement widespread preventive measures, raise awareness among parents and educators, and prioritize child safety within the healthcare system. This issue is not only a concern for the medical field but also requires collaboration among the education, legal, and social protection systems, making it one of the most pressing problems that must be addressed collectively.

Materials and methods: School-aged children living in Urgench city, Yangiarik and Qoshkupir districts of the Khorezm region were selected as the study subjects for data collection. The prevalence of domestic injuries among school-aged children was studied and analyzed over the period from 2016 to 2020.

Results and discussion: In connection with this pressing issue, school-aged children (7–17 years old) living in several districts of the Khorezm region, including Urgench city, Yangiarik and Koshkupir districts, were selected to study the prevalence of domestic injuries. The occurrence of such injuries among children was analyzed over a five-year period (2016–2020), and the following data were collected.

Based on the findings of the study, a clear upward trend in injury incidence was observed with increasing age among children. On average, across the studied regions, the injury rate among children aged 15–17 was 2.2 times higher than that of those aged 6–9. In particular, this rate increased by 2.9 times in Urgench city, 2.4 times in Qo'shko'pir district, and 1.6 times in Yangiarik district. Notably, the increase was more pronounced among boys, which can be attributed to their higher levels of physical activity, more frequent engagement in sports, and greater involvement in physically demanding tasks. (Table 1)

(Table 1)

Prevalence of Domestic Injuries Among Children by Region, Age Group, and Gender (per 1000 children) During 2016–2020 ($P \pm m$)

Districts	6-9 years old			10-14 years old			15-17 years old			Total		
	Male children	Female children	Total	Male children	Female children	Total	Male children	Female children	Total	Male children	Female children	Total
Urgench city	27.3 ± 1.10	7.75 ± 0.48	14.14 ± 0.51	29.0 ± 0.92	4.90 ± 0.40	17.59 ± 0.52	70.10 ± 1.96	8.97 ± 0.75	40.77 ± 1.10	35.57 ± 0.67	6.11 ± 0.19	21.5 ± 0.37
Koshkupir district	35.6 ± 0.97	6.41 ± 0.44	21.8 ± 0.56	35.1 ± 0.9	5.13 ± 0.38	21.2 ± 0.53	93.0 ± 2.02	7.2 ± 0.59	50.5 ± 1.08	47.6 ± 0.68	6.09 ± 0.28	27.9 ± 0.38
Yangiari k district	30.04 ± 1.14	7.33 ± 0.60	19.2 ± 0.66	36.8 ± 1.18	8.46 ± 0.59	22.6 ± 1.18	98.6 ± 1.78	11.7 ± 0.92	30.6 ± 1.78	36.9 ± 0.76	8.83 ± 0.39	23.3 ± 0.43
Total	29.85 ± 0.58	6.44 ± 0.29	18.70 ± 0.33	33.45 ± 0.57	5.96 ± 0.27	20.42 ± 0.33	73.2 ± 1.14	9.00 ± 0.42	41.90 ± 0.63	40.94 ± 0.41	6.83 ± 0.18	24.65 ± 0.23

To assess the level of domestic injuries among children in the Khorezm region, one city (Urgench) and two rural districts (Qo‘shko‘pir and Yangiari k) were selected for in-depth study and analysis. The results revealed that, on average, the incidence of domestic injuries among children in the studied areas was 24.65 ± 0.23 per 1,000 children. Notably, the injury rate among boys (40.94 ± 0.41) was nearly six times higher than that among girls (6.83 ± 0.18). Further analysis by age group indicated that the injury rate was 4.6 times higher among children aged 6–9, 5.6 times higher among those aged 10–14, and 8.1 times higher among those aged 15–17. These findings suggest that the medical and social causes of domestic injuries in children warrant a separate and detailed scientific investigation. Over the course of the studied years, the injury rate among children showed an upward trend up to 2019, particularly among boys, where an increase of 27% was observed. In contrast, the rate among girls remained relatively stable throughout the study period. Age-specific analysis of injury rates showed a clear increase in injury incidence with age. Among children aged 15–17, the rate was 41.90 ± 0.63 per 1,000, which is 2.2 times higher than that observed in children aged 6–9 (18.70 ± 0.33). Among those aged 10–14, the rate was 20.42 ± 0.33 per 1,000. Importantly, in all age groups, a consistent increase in injury rates was observed among boys throughout the study period. However, among girls, an increase was only

observed in the 15–17 age group, while the rates in the younger age groups remained largely unchanged.

Table 2

Prevalence of domestic traumatism among school-aged children in the selected study areas of the region (per 1000 children) from 2016 to 2020 ($P \pm m$).

Years	6-9 years old			10-14 years old			15-17 years old			Total children		
	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total
2016 year	6,45 ± 0,64	28,5 ± 1,26	18,2 ± 0,73	6,85 ± 0,64	33,5 ± 1,35	20,6 ± 0,77	6,23 ± 0,78	49,88 ± 2,11	28,6 ± 1,16	6,56 ± 0,39	35,4 ± 0,86	21,6 ± 0,49
2017 year	7,25 ± 0,69	30,3 ± 1,3	19,4 ± 0,76	6,75 ± 0,63	35,6 ± 1,37	21,7 ± 0,77	8,97 ± 0,95	68,00 ± 2,46	39,3 ± 1,36	7,46 ± 0,42	40,9 ± 0,92	24,9 ± 0,53
2018 year	7,81 ± 0,71	31,0 ± 1,34	19,9 ± 0,77	6,18 ± 0,59	33,9 ± 1,38	20,9 ± 0,75	9,72 ± 0,99	84,58 ± 2,75	48,0 ± 1,51	7,59 ± 0,42	44,0 ± 0,95	26,6 ± 0,54
2019 year	7,89 ± 0,71	38,1 ± 1,49	23,5 ± 0,85	6,60 ± 0,6	39,0 ± 1,84	23,7 ± 0,78	9,93 ± 0,99	82,81 ± 2,70	47,3 ± 1,49	7,82 ± 0,42	48,3 ± 0,98	28,9 ± 0,56
2020 year	2,84 ± 0,42	21,3 ± 1,11	12,4 ± 0,61	3,60 ± 0,45	25,7 ± 1,09	15,3 ± 0,62	10,30 ± 1,02	81,71 ± 2,73	46,6 ± 1,5	4,80 ± 0,33	35,8 ± 0,85	21,0 ± 0,47
Total	6,44 ± 0,29	29,8 ± 0,58	18,7 ± 0,33	5,96 ± 0,27	33,4 ± 0,57	20,4 ± 0,33	9,00 ± 0,42	73,21 ± 1,14	41,9 ± 0,63	6,83 ± 0,18	40,9 ± 0,41	24,6 ± 0,23

Specifically, the injury rate declined by 12.5% in 2020 compared to 2019 (from 48.35±0.98 to 35.88±0.85 per 1,000 children). The reduction was 11.2% among children aged 6-9 years and 13.3% among children aged 10-14 years. However, the injury rate among 15-17-year-olds remained nearly unchanged.

The study also revealed that although there were similarities in the spread of injuries between urban and rural school-aged children, certain distinctive differences were noted. A comparative analysis of data from Urgench city with the average indicators of the three studied areas showed that the overall injury rate in Urgench was 21.5±0.37 per 1,000 children. For boys, this rate was 35.57±0.67, while for girls, it was 6.11±0.29. In comparison, the overall average across all studied areas was 24.65±0.23, with rates of 40.94±0.41 for boys and 6.90±0.18 for girls. This indicates that injury rates, particularly among boys, were significantly lower in Urgench. The same trend was observed when analyzing injuries by age groups. However, among girls, there were no significant differences across age groups. The study found that injury rates were relatively higher in rural areas. In rural districts, the overall injury rate was 25.6±0.40 per 1,000 children, with 42.25±0.72 for boys and 7.46 for girls. In contrast, these figures for urban children were 21.5±0.37, 35.5±0.67, and 6.11±0.29, respectively. Thus, the injury rate among rural children was

about 20% higher than in urban areas. This finding suggests that preventive measures targeting injury prevention among schoolchildren should be strengthened, particularly in rural areas. Similar to the general regional trend, the rate of childhood injuries in urban areas increased up to 2020 but then showed a slight decline. By 2019, injuries among all social groups had risen by 36% compared to 2016, with increases of 35% among boys and 40% among girls. Across all studied regions, the peak injury rate was observed in 2019, averaging 36%. As expected, injury rates increased with age. Among 15-17-year-olds, the overall injury rate was 2.9 times higher than among 6-9-year-olds, with increases of 2.6 times for boys and 1.5 times for girls. This trend can be attributed to increased physical activity and reduced parental supervision as children grow older.

Conclusion: Based on the findings, it can be concluded that the higher quality of life in urban areas compared to districts and villages contributes to lower injury rates among children. In Urgench city, the injury rate was 21.5 ± 0.37 per 1,000 children, while in Koshkupir district, it was 27.9 ± 0.38 , and in Yangiariq district, it was 23.3 ± 0.43 , indicating that injury rates were 20% and 8% higher in these districts, respectively. This study also highlighted that injuries were significantly more common among boys, with an average difference of 38%. Additionally, increased physical activity as children grow older was identified as a major factor contributing to higher injury rates.

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