Ethnic disparities in ATV-related childhood injury in Israel

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Objective

To document the incidence of, and to identify the sociological causes behind ATV-related childhood injury (aged 0-17) in Israel between 2012-2021.

Background:

Israeli legislation, regulation and enforcement around ATVs are highly porous and inconsistent (Sade, 2021,2021b; Soroker, 2020). In addition, compared to their Jewish counterparts, Arab-Israeli children suffer from various inequalities, including the institutionalized under-budgeting of infrastructure and social services (Baron-Epel & Ivancovsky, 2015; Beterem, 2019).

Method:

Data were collected from Israeli hospitals using the Minimum Data Set [MDS] standard.

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Baron-Epel, O., & Ivancovsky, M. (2015). A socio-ecological model for unintentional injuries in minorities: a case study of Arab Israeli children. International journal of injury control and safety promotion, 22(1), 48-56. Beterem. (2019). State of Affairs: Childhood Injury in the Arab Community in Israel: 2016-2018 (Hebrew). Godler, Y., Orr, D., & Calif, E. (2022). The state of all-terrain vehicle (ATV)-related injury among Israeli children: data and regulation. Frontiers in public health, 10. Sade, Y. (August, 2021). Falling between the cracks: thousands of electric ATVs in Israel are not defined as vehicles. Calcalist, available at: ://www.calcalist.co.il/local_news/car/article/s1c211wlgt (Hebrew). Sade, Y. (October, 2021b). The Police: criminal charges to against riders of electric ATVs, the vehicle is to be impounded and destroyed. Calcalist, available at: https://www.calcalist.co.il/local_news/article/rjxmwkbB9y (Hebrew). Transportation Regulations .(1961). Available at: https://www.nevo.co.il/law_html/law01/p230_011.htm (Hebrew).Siman-Tov, M., Marom-Trabelsi, I., Radomislensky, I., Bodas, M., & Peleg, K. (2020). Injuries among all-terrain vehicle users: a population-based study. Injury prevention, 26(6), 540-545. Soroker, G. (2020). Small vehicles for children and adolescents: means oftransportation or toys? (Advisor: Dr. Yael Hadar), Israel's National Road Safety Authority (Hebrew).

Figure 1: All ATV-Related ER Admissions per 10,000

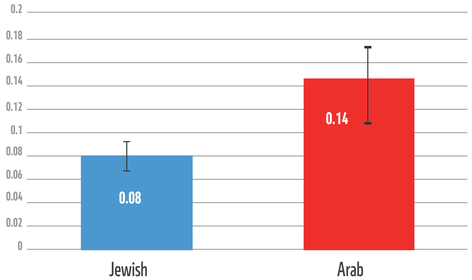
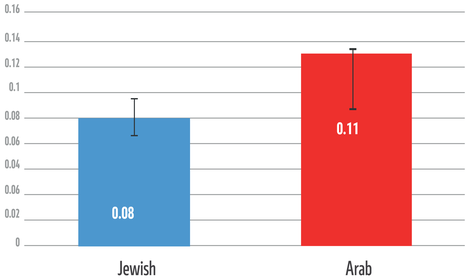


Figure 2: ER Admissions from Riding ATVs per 10,000



Results:

In total, 308 children were admitted into ERs from ATV-related injuries (including 267 children injured specifically as a result of riding ATVs). We found a significant ethnic difference in the standardized rates of ATV-related childhood injury (Figure 1, Arab children 95% CI [0.06, 0.09]); Jewish Children 95% CI [0.11,0.17]), leaning against Arab children. With regard to injuries from riding ATVs, the ethnic difference disadvantaging Arab children remains, but appears more modest (Figure 2, Arab children 95% CI [0.08,0.13]; Jewish Children 95% CI [0.06,0.09]). Finally, Arab children incurred at least 70% of the injuries from being hit by ATVs as pedestrians, whereas Jewish children constituted at least 22% of those injured in this manner.

Takeaway:

Consistency needs to be introduced into relevant laws and socioeconomic inequalities contributing to the overrepresentation of Arab children among those injured need to be tackled (Baron-Epel & Ivancovsky, 2015; Godler, Orr & Calif, 2022; Siman-Tov, Marom-Trabelsi, Radomislensky, Bodas,& Peleg, 2020).