

# Escalator safety among children

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## ABSTRACT

**Introduction and Objectives:** Escalator-related injuries involving children are common. This study aimed to explore escalator safety among Malaysian children aged  $\leq 5$  years. **Methodology:** An observational study was conducted in 6 (out of 12) randomly selected shopping malls in the Kinta region. Malls equipped with traveller-walkers or single-direction escalators were excluded. Children aged  $\leq 5$  years (age estimated based on average height of Malaysian children) and riding escalators at the main mall entrance were included. A sample size of 258 caregiver-child pairs was required. Eligible pairs were randomly selected using a mobile application random number generator. Caregiver and child were observed for unsafe behaviours according to a checklist of 15 unsafe behaviours constructed from accredited escalator guidelines of 5 different countries. Two researchers are positioned near the entry point of the escalator to observe the caregiver and child. Researchers were trained to ensure standardisation of observation. **Results:** A total of 258 child-caregiver pairs were observed. 149 (57.8%) children and 162 (63.8%) caregivers demonstrated at least 1 unsafe behaviour when using the escalator. The most common unsafe behaviour among children were 'not following caregiver's instructions' (28.7%), followed by 'touching panels of the escalator' (17.8%), 'facing the opposite direction of intended travel' (14.7%), 'wearing inappropriate shoes' (12.8%), and 'loose clothing brushing against escalator steps' (10.9%). 4 children used the escalator unattended. The most common unsafe behaviour among caregivers was 'not holding their child's hand while using the escalator' (41.7%), followed by 'using a phone/tablet while traveling on the escalator' (30.7%), 'taking a stroller/baby carriage/pushing trolley/hand trolley or a similar item on the escalator' (19.3%), and 'loose clothing brushing against escalator steps' (12.6%). **Conclusion:** A large proportion of children and caregivers used escalators in an unsafe manner. This urges immediate action to rectify unsafe behaviours among escalator users to prevent undesired injuries, especially among children.

Med J Malaysia Vol 72 Supplement 1 August 2017:A45

# Exploring the prevalence of helmet usage among students arriving to schools by motorcycles in Malaysia

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## ABSTRACT

**Introduction and Objectives:** Helmet is the best equipment to protect motorcycle users from head injuries, by reducing the severity of head injuries by 72% and deaths by 24%. This study aimed to determine the prevalence of helmet and chin strap usage among student motorcyclists in Malaysia. **Methodology:** A cross-sectional study was conducted at secondary schools within Kinta district of Perak in October 2016. 20 national secondary schools were randomly sampled. Inclusion criteria were secondary national schools located in the Kinta region, which allows upper secondary students to ride a motorcycle to school. Excluded were full boarding schools, schools for students with special needs, and students who ride a modified motorbike for special needs. 3 researchers were stationed near the main entrance of school to observe the usage of helmet and chin strap. Students were observed for an hour during peak arrival time (7am to 8am). Data collected were recorded in a checklist. Result: 1637 out of 4193 students came to school via motorcycle. 43.8% (717/1637) students who came by motorcycle did not wear a helmet, and 14.7% (135/920) of those who wore a helmet did not wear chin strap. Of the 1637 who came in a motorcycle, 876 (53.5%) were motorcyclists, of which 65.2% (571/876) rode alone, and 34.8% (305/876) rode with another student pillion. A higher percentage of student pillions (52.7%) compared to student motorcyclists (36.1%) and non-student motorcyclists (22.1%) did not wear a helmet ( $p=0.003$ ). The percentage that did not use a chin strap appears to be similar among student pillions (20.6%), student motorcyclists (10.9%), and non-student motorcyclist (9.7%) ( $p=0.80$ ). **Conclusion:** 1 in 3 students arriving in schools by motorcycles did not wear a helmet, and 1 in 7 students who wore a helmet did not use the chin strap.

## KEY WORDS:

*Motorcycle helmet, student motorcyclist, chin strap, pillion, NMRR-16-1998-33041*