

Safer roads for children in the United Arab Emirates

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كيف نجعل الطرق أكثر أمناً لأطفال الإمارات العربية المتحدة كنيث ب. داوسون وأ. بينر

خلاصة: أجريت هذه الدراسة للحصول على رأي عينة ممثلة لآباء تلاميذ المدارس الابتدائية، فيما يتعلق بالاستراتيجيات التي ينبغي تطبيقها للإقلال من ضحايا حوادث المرور على الطرق في الإمارات العربية المتحدة. فأجرينا في مدينة العين بالإمارات العربية المتحدة دراسة سكانية مقطعية، سئل الوالدان فيها أن يقدموا مقترحات حول كيفية جعل الطرق أكثر أمناً لأطفالهم. ولقد جاءت في المقدمة تلك الاستراتيجيات الهادفة إلى تخفيض سرعة السيارات، ورفع مهارات القيادة لدى الأفراد، والالتزام بالتعليمات المقررة، وتوعية السائقين والمشاه. إن في دولة الإمارات إدراكاً واسع الانتشار لمشكلات سلامة الطرق، ومن الجلي أن الجمهور مستعد لتقبل مبادرات الأمان الكبرى التي تشير بها الدوائر الحكومية المعنية.

ABSTRACT A study was conducted to obtain a representative view of the parents of primary-school children regarding which strategies should be employed to reduce the toll of road traffic accidents in the United Arab Emirates. A cross-sectional population-based study was conducted in Al-Ain, UAE, in which parents were asked to give their suggestions on how to make the roads safer for their children. Strategies aimed at reducing vehicle speed, improved personal driving, adherence to existing rules, and driver and pedestrian education were regarded as paramount. There is widespread awareness of road safety problems in the country and the public appears ready to accept major safety initiatives by government agencies.

Des routes plus sûres pour les enfants des Emirats arabes unis

RESUME Une étude a été réalisée pour recueillir une opinion représentative des parents des enfants des écoles primaires en ce qui concerne les stratégies qui devraient être utilisées pour réduire le nombre des victimes des accidents de la route dans les Emirats arabes unis. Une étude transversale basée sur la population a été réalisée à Al-Ain (Emirats arabes unis) durant laquelle il a été demandé aux parents de faire des suggestions concernant les moyens de rendre les routes plus sûres pour leurs enfants. Les stratégies visant à réduire la vitesse du véhicule, à améliorer la conduite personnelle, faire respecter les règlements en vigueur, ainsi que l'éducation des conducteurs et des piétons ont été jugées comme étant les plus importantes. Il existe une prise de conscience généralisée des problèmes de sécurité routière dans le pays et le public semble prêt à accepter les principales initiatives prises par les organismes gouvernementaux en matière de sécurité routière.

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Introduction

Increasing concern is being expressed about the rising toll of road traffic accidents in the United Arab Emirates (UAE). Road traffic accidents are now the most frequent cause of admission to hospital in children aged 10–14 years [1,2], and young male adults are the most frequent victims of road accidents [3]. Recommendations from studies cite education, legislation and enforcement as appropriate responses to the rising accident toll. A similar situation exists in Saudi Arabia and studies by Evbuonwan [4], Al-Tukhi [5] and Jadaan and Bener [6] have indicated that the problem is not unique to the UAE. There is little information as to what the parents of young schoolchildren believe the background causes of accidents are and what strategies should be employed to reduce the number of accidents. Clearly it is important to be aware of public opinion prior to the introduction of any innovative measures aimed at road safety. In this paper we report the views of parents of a sample of primary-school children from Al-Ain, UAE. Primary-school children were selected so that the questionnaire would be completed by the parents only and would reflect only parental views.

Subjects and methods

A cross-sectional population-based study was conducted in Al-Ain City, UAE in April and May 1998. Parents (UAE and non-UAE nationals) with children aged 6–12 years were asked to complete a written questionnaire on road safety and to give their suggestions on how to make roads and streets safer for their children (Figure 1).

The study design employed a multi-stage stratified cluster sampling method us-

ing an administrative division of Al-Ain City. For the target population, a representative sample of 10 primary schools and 500 schoolchildren, aged 6–12 years, were selected for the study. The subjects selected from each district were predetermined so as to be proportional to the size of Al-Ain City and its medical health districts. Furthermore, schools, classes and subjects were then selected proportionally by a single random sampling procedure, which was geographically representative of Al-Ain. The original sample included 500 students, the parents of whom were requested to complete the questionnaire. The total number of questionnaires analysed was 354 as a result of absenteeism and incomplete questionnaires, giving a response rate of 70.8%.

The data were coded and analysed using *SPSS*. Data are expressed as number and percentages.

Results

The 354 respondents gave 468 suggestions for improved road safety. The responses fell into 12 main categories and the 17 other suggestions were classed as miscellaneous (Table 1).

The most frequent suggestion (120) was the need for a reduction in the speed of vehicles (25.8%). However, 72 of these statements restricted reduction in speed to certain areas only, such as towns, pedestrian crossings or "when children are seen". Improved driving care and closely obeying the existing regulations, but without any additional strategies, was favoured by 15.4% of the parents.

Parental supervision of children was stated as important, but this included comments about supervision by school-bus chaperones and school-crossing guardians.

Road safety questionnaire

- 1 Do you own a car? Yes No
- 2 How long have you been driving (years)?
 2 5 5 10 >10
- 3 Do you think road safety is an important matter in the UAE with regard to children?
 Very important Important Not important Don't know
- 4 How important is vehicle speed in relation to causing accidents in the UAE?
 Not important Little importance Important
 Extremely important Most important factor
- 5 Does your car have seat belts? Yes No
- 5a If yes, do you use your seat belt?
 Always Most of the time Occasionally
 For long distances For short distances Never
- 6 Where in the car do you think children should sit?
 Front Back Anywhere
- 7 Should children have their own seat belts or special chairs?
 Yes No Don't know
- 8 Is drinking alcohol or drug taking a major problem in road accidents in the UAE?
 Not important Some importance Important A major factor
- 9 Do you smoke while driving?
 Yes No
- 10 Do you talk on a mobile telephone while driving?
 Yes No
- 11 All schoolchildren should have compulsory road safety education at school.
 Strongly agree Agree Do not agree No opinion
- 12 At what age should people be able to obtain a driving licence?
- 13 A driving licence should be taken away if the driver is found to be speeding excessively, drinking or driving recklessly.
 Strongly agree Agree Do not agree No opinion
- 14 What do you think should be the maximum speed limit (km/hour)?
 In town (city) On the highway?
- 15 What should be done to make the roads and streets safer for children?
- 16 Form completed by: father, mother or another relative

Figure 1 Questionnaire relating to road safety (English language version)

Table 1 Distribution of parental responses

Strategy for improving road safety	Suggestion (n = 468)	
	No.	%
Speed reduction	120	25.8
Greater care when driving	72	15.4
Education on road safety	59	12.7
Pedestrian crossing safety	48	10.3
Increased traffic signs and lights	45	9.6
Compliance with traffic signs and lights	22	4.6
Increased policing and punishment	19	4.1
Use of seat belts and special seating	19	4.1
Increased parental supervision of children	17	3.6
Separation of vehicles from pedestrians	16	3.5
Safety measures within cars	8	1.7
Increased radar	6	1.2
Miscellaneous	17	3.6

Comments about road safety education (12.7%) included many ways in which this could be achieved. These included: free safety code books, television and radio programmes, competitions, a traffic safety week, traffic safety exhibitions and school education programmes. Suggestions for the care of children within cars (1.7%) included ensuring that car windows are closed at all times, doors locked and children kept occupied while travelling. Pedestrian crossing changes (10.3%) included designated and well sign-posted school crossings, special arrangements for pedestrians to cross the road and, specifically recommended, was the construction of overpasses for pedestrians. Additionally,

3.5% strongly advocated that specific action be taken to separate vehicles from pedestrians at all times.

The use of seat belts and special children's seats was recommended on 19 occasions. Among the many miscellaneous comments were the need to: construct central road barriers, keep camels away from the roads, ensure that influence is not used to obtain a driving licence and impose restrictions on taxi drivers who were considered to be the cause of many accidents.

Discussion

A quarter of all parental suggestions focused upon speed reduction as a strategy to reduce the number of accidents. This, and increased personal care when driving and adherence to the existing regulations, were the most popular recommendations. However, there were surprisingly few comments on how these requirements could be implemented. Very few supported increased policing, extra or severe punishment, radar traps or licence suspension.

At the time of our survey, seat-belt use in the UAE was in the order of only 6% [7] and new laws were about to be implemented to address this situation. However, only 4.1% of parental suggestions were directed at this approach to safety and injury reduction. More interest was focused on pedestrian crossings and the need to ensure that people could cross the road in safety. New signs, traffic lights and increased numbers of road humps to reduce speed were all supported. Methods by which vehicles could be compelled to stop outside schools and at pedestrian crossings were all recommended. Speed reduction prior to entering a designated crossing area and signs giving advance warning were also seen as very important.

It was clear from the detailed and thoughtful responses of the parents that matters of road safety were very important. Overall, it appeared that many parents felt that the solutions were, in fact, in their own hands, but the motivation for action seemed to be lacking. It was clear from the responses of the parents that public awareness of the problem of road safety in the UAE has increased, brought about, for example, by newspaper articles, and no one disputed the need for action. One respondent commented that he had no idea how his suggestion on speed reduction could be implemented or enforced. Changing driver behaviour can be difficult as the lack of success in promoting seat-belt use in Ku-

wait and Saudi Arabia, despite extensive education and publicity, has shown [8]. Clearly, many parents see active education programmes for children and learner drivers as part of a successful long-term strategy.

Our question provoked thoughtful and constructive responses from the parents of young children in Al-Ain. Reducing vehicle speed, careful driving and education on road safety are their principal recommendations. It is to be hoped public opinion is now ready to support any new policies from the UAE traffic police, including the new seat-belt laws intended to reduce the severity of injuries from road accidents in this country.

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