



The road user behaviour of school students in Belgium

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ABSTRACT

The present study aimed to investigate both the on road behaviour of Belgian school students and the validity of the Adolescent Road User Behaviour Questionnaire (ARBQ) in a sample of students attending school in Belgium. In total, 294 adolescents completed the ARBQ along with measures of their self-reported accident involvement and sensation seeking behaviour. Confirmatory Factor Analysis supported the original factor structure of: “unsafe road crossing”, “playing on the road” and “planned protective behaviour” for the 21-item version of the questionnaire, but not for the full scale. Males were found to engage more often in unsafe crossing behaviour and playing on the roads. There were also age differences, with unsafe road crossing increasing with age and engagement in planned protective behaviours improving with age. Those who reported being involved in an accident also reported more frequent engagement in unsafe crossing, playing on the roads, thrill seeking behaviour and lower levels of behaviour inhibition. Therefore, this study confirms that the ARBQ is a useful tool for investigating safety-related behaviours that contribute to accident involvement.

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1. Introduction

Unintentional injury is the principal cause of death amongst children and adolescents in all of the developed nations (UNICEF, 2001). This is also the case in Belgium, which has one of the less enviable child safety records in Western Europe. In 2007, out of the 18 EU countries that participated in the Child Safety Action Plan, Belgium had the sixth highest death rate for males under 19 years old and the ninth highest for females (European Child Safety Alliance, 2007). As is the case in most other developed countries, road traffic accidents in Belgium account for the single largest proportion of deaths. For young males, there are almost eight times as many deaths due to traffic accidents than for any other cause. Furthermore, traffic accidents are also by far the largest cause of accidental death among young females (European Child Safety Alliance, 2007). One important first step in improving the safety of Belgium adolescents is to understand the behaviours that may put them at an increased risk of being killed or injured on the road.

Unlike the area of risky driving behaviour, there is currently no agreed framework for investigating the pedestrian behaviour of children or adolescents. However, one recently developed framework for investigating the on-road behaviour of adolescents, in relation to accident involvement, is the Adolescent Road-user

Behaviour Questionnaire (ARBQ) (Elliott and Baughan, 2004). The ARBQ was developed by Elliott and Baughan (2004) and is based upon information collected from focus groups and police descriptions of pedestrian accidents involving adolescents. The questionnaire measures the on-road behaviour of adolescents as pedestrians, while also including a small number of other important behaviours, such as cycling, skateboarding and rollerblading on the road. Elliott and Baughan (2004) studied 2433 English students aged between 11 and 16 years old using the 43-item ARBQ and found that the data produced three reliable factors. These were labelled: “unsafe crossing behaviour” (e.g. getting part way across the road and having to turn back to avoid traffic); “dangerous playing in the road” (e.g. playing football on the road); and “planned protective behaviour” (e.g. using lights when riding a bike). In addition, this research also developed a 21-item version of the scale, which also had good internal reliability.

The three ARBQ factors were also largely supported by a follow-up study conducted in New Zealand (Sullman and Mann, 2009). Sullman and Mann obtained data from 944 New Zealand school students and largely reproduced the three-way distinction, using exploratory factor analysis, for both the long and short versions of the scale. However, as both the United Kingdom and New Zealand are English speaking countries with relatively similar cultures, Sullman and Mann (2009) recommended that research should be conducted in a more culturally different, non-English speaking country. This was attempted in a recent study using students from Spain, where over 2000 Spanish school students completed the

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