

MULTIPLE ROAD SAFETY EDUCATIONAL NEEDS IN DEVELOPING COUNTRIES: WORLD HEALTH ORGANIZATION APPROACH

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ABSTRACT

The need for road safety education in developing countries is enormous in view of the growing challenge of road traffic injuries in these countries. The need ranges from specialized training to general public knowledge. Systematic data collection, analysis and dissemination are weak in these countries. Linkage between data sources is also weak. Although there is a growing group of road safety experts, a number lack relevant research skills and competence in project implementation, policy advocacy and proposal writing. At the policy level, there is general lack of awareness and knowledge on the magnitude and impacts of road traffic injuries. This paper presents the World Health Organization (WHO) strategy on road traffic injury prevention, which has educational and outreach components. Educational activities in the WHO strategy are focused on development of guidelines (surveillance, good practice, trauma care), conducting studies, training of experts, development of curriculum on injuries for schools of public health, dissemination of information (fact sheets, research reports, interactive CDs), support for short courses, improvement in data collection and analysis and giving technical support. Overall, we note that capacity building is important for effective implementation of road safety interventions in these countries. This calls for enhancement of training in such key areas as epidemiology, pre-hospital care, emergency, surveillance, policy analysis and advocacy. There is an urgent need for increased funding for this training. Furthermore, there is need for road safety educational programme to be integrated in the entire road traffic injury prevention activities. Education and knowledge, on their own, may not bring about behavioural change. Hence, the need to make educational programmes to be part and parcel of other interventions.

KEY WORDS

EDUCATIONAL NEEDS/DEVELOPING COUNTRIES/APPROACH/WHO

1. INTRODUCTION

Education is a key component of road safety programmes. Education is one of the 5Es (education, enforcement, engineering, encouragement and evaluation) of road safety interventions (O'Neill, 2001; Downing, 2002). There has been a long-standing debate on the value of road safety education. Some recent reviews indicate that education alone is not an effective strategy for road traffic injury prevention (Duperrex et al., 2002; Insurance Institute for Highway Safety, 2001,

1997). There is a host of questions about whether or not it is worthy to invest resources in road safety education. The questions emerging and re-emerging on road safety education are valid and road safety experts need to critically look at this issue from time to time. A brief conceptual analysis is deemed necessary. A basic but important question to address is: What is road safety education? What is the difference between education and training for road safety awareness? These questions take us further to other fundamental questions: What is education? What is training? What should constitute road safety education and training with respect to the content, audience and approach? How can road safety education and training be made relevant? How should the short- and long-term impacts of road safety education and training to individuals and society be measured? We raise these questions in view of the unfolding and ongoing debate on the role of road safety education and training.

The term education is sometimes used synonymously and often confused with terms such as instruction, training, teaching and pedagogy. All these are aspects of education but do not constitute the full spectrum of education. Education is a multi-dimensional concept and it has four main dimensions: cognitive, normative, dialogical and creative. These dimensions indicate that education goes beyond mere transmission of knowledge to the use of this knowledge for transformation of life and situations (Njoroge and Bennaars, 1986). This implies that road safety education is much more than just placing messages on posters and distributing fliers to raise awareness. This does not mean that these activities have no role but they need to be situated in an overall road safety educational strategy and road safety programmes. The concern should be to use education not just to transmit information but to galvanise and empower society to respond effectively to the challenges of road traffic injuries. Training focuses on identifying, assuring and helping develop, through planned learning, the key competencies that enable individuals to perform their current jobs (Broad and Newstrom, 1992:5). While training focuses on provision of skills, knowledge, behaviour and attitude change for immediate use at the workplace, education focuses more on the general growth and development of individuals (Nafukho and Kang'ethe, 2002:1).

The targets of road safety education are varied as revealed in results presented in different studies, a sample of which is presented in Table 1. There are two general extreme cases which emerge from literature. The first is a tendency to overstate the role of road safety education and treat it as an independent activity. The second is to understate what road safety education can do towards road traffic injury prevention. There is also a conceptual and methodological dilemma on how best to assess the impact of road safety education: Is this to be involvement in road traffic collisions or should the focus be on behaviour and attitude change? What of the role of different persons in road safety activities and programmes - can this be a measure of impact of the education and training they have received? There is a need for methodological prudence to avoid analytical errors of mismatch between educational inputs and outcomes. How do we measure the returns to investment made in road safety through education and training? How do qualify, both qualitatively and quantitatively, the return on investment of different road safety programmes?

Table 1 - Examples of conceptualisation of road safety education

Study	Aspect of road safety education	Approach	Main finding and/or conclusion
Duperrex et al. 2002	Effect of safety education on pedestrians' injuries, attitude, and knowledge and on pedestrian pedestrian-motor vehicle collisions	Review of studies	Pedestrian safety education can changed road crossing behaviour but whether this reduces the risk
Insurance Institute for Highway Safety 1997	High school-based driver education and training and involvement in collisions in the USA, New Zealand	Summary of research findings presented in a review of studies by Mayhew and Simpson	No empirical evidence that driver education yields safety benefits equivalent to on-the-road driving experience gained under low-risk conditions. Earlier training leading to earlier licensing can lead to higher crash rates.
Thomson et al. 1998	Effectiveness of parents in promoting the development of road crossing skills in young children	Comparative analysis: professional staff and parents in the United Kingdom	Parent volunteers can significantly increase the pedestrian competence of children as young as five years.
Swaddiwudh ipong et al. 1998	Motor cycle rider education and change in risk behaviour	Comparative analysis: intervention and non-intervention (control) villages in rural Thailand	Motorcyclists in intervention areas showed better behaviour: possession of valid licences, wearing helmets. Reduction in number and rate of fatal motorcycle injuries after the intervention. Motorcycle rider education is a promising intervention in rural areas where safety measures, particularly enforcement, are commonly limited.

Source: Compiled by Authors

The preceding discussion reveals that there are important conceptual and empirical considerations in road safety education and training which need to be addressed. The underlying conceptual concern for this paper is that issues pertaining to road safety education need to be critically reflected on and contextualized. This cannot be more emphasized than in developing countries where the educational needs range from public awareness raising, through data management capacity, outreach programmes, policy advocacy to high level skill training in research and programme development.

2. EDUCATION IN WHO ROAD TRAFFIC INJURY PREVENTION STRATEGY

2.1 Integrated approach

The World Health Organization has been involved in road traffic injury prevention in a sustained manner since 2000. In 2001, WHO produced a Five-year Strategy for Road Traffic Injury Prevention to provide guidance to dedicated researchers, practitioners and policy makers on how to do more and prioritize road traffic injury prevention efforts (Peden et al., 2001). The strategy has core three areas where the WHO can add value: epidemiology, prevention and advocacy (Figure 1). This strategy is an effort at integrated approach to road traffic injury prevention. Under each of these three areas, there are elements of road safety education.

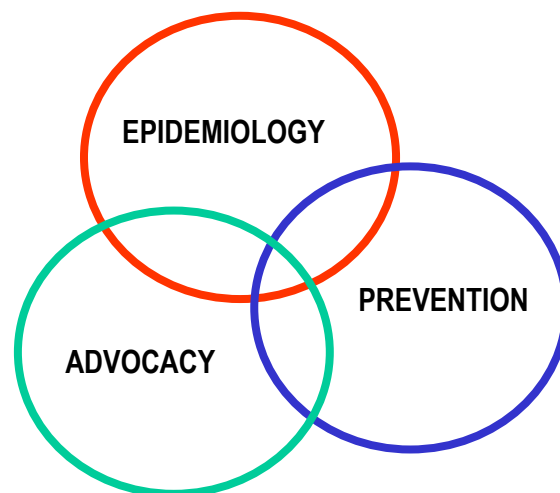


Figure 1 - WHO's added value in road traffic injury prevention
Source: Peden et al. (2001)

2.2. WHO Experience

WHO has over the years worked in a number of developing countries on road safety (WHO, 1984, 1989). The WHO experience so far reveals that the need for road safety education in developing countries is varied in content, target audience and approach. In short, there are multiple educational needs and it is important to adequately respond to these needs. Even in the Ministries of Health,

there is need for capacity enhancement for road safety. Table 2 presents a sample of the road safety educational needs that WHO is requested to respond to in developing countries.

Table 2 - Sample of road safety educational needs in developing countries

Elements	Primary target audience
General awareness raising and empowerment	The public (all members of society - community)
Targeted awareness raising	Policy makers and practitioners in key and strategic sectors
Education outreach and training	Transport workers, employers.
Research capacity (basic and applied)	Researchers in different disciplines (certificate and degree courses in health, engineering, sociology, law enforcement, transport, urbanisation, development etc)
Emergency medical services	Health professionals at different levels of the health care system
Project formulation, design, implementation and evaluation (to promote effective road safety measures)	Professionals in different sectors
Resource mobilization, negotiation, vocational remediation, counselling, advocacy and networking	Professionals in different sectors

Source: Compiled by Authors

We now answer the question: How has WHO responded to these educational needs? The response has been two-fold. The first level of response has been to identify and incorporate educational activities in the WHO road traffic injury prevention strategy. Towards this end, WHO is developing resources and undertaking specific activities, which are focused on development of guidelines (surveillance, manual of good practice, pre-hospital guidelines, road traffic injury training manual), development of a course on injuries and violence for schools of public health, dissemination of information (fact sheets, research reports, press releases, CDs and conferences), providing financial support for short courses (Injury Prevention Initiative for Africa - IPIFA), support to road safety networks and giving technical support to countries. The second response is largely methodological, which is to promote an integrated approach to road traffic injury prevention (Peden et al., 2001). This approach has made it possible for WHO to situate road safety education in the entire programme of road traffic injury prevention. To realize this approach, WHO works in partnership with a number of agencies at national, regional and global levels on road safety activities, including road safety education.

3. CONCLUSION

Education is an important element of road safety programmes worldwide. The WHO experience supports the view that road safety education and training should be part of a mix of approaches and strategies targeted at such aspects as traffic law enforcement, speed, helmet use and policy response. It is important to address the varied and multiple road safety educational needs in developing countries. Unfortunately, road safety educational programmes and studies have tended to have a narrow focus on a few aspects. Conceptualisation of road safety education is inadequate, as the focus tends to be on poster publicity, public awareness raising and short-term training sessions and not on the key overarching domains of education: cognitive, normative, and creativity. This partly explains the lack of a fully developed strategy and curriculum aimed in many developing countries. The road safety community needs to revisit this area. An important question for the road safety community to respond to is: Are there really well integrated road safety educational programmes and training in developing countries? An adequate response to this question will help in developing a strategy and curriculum aimed at responding to the multiple road safety educational needs that are present in developing countries. While the value of education in road traffic injury prevention cannot be underrated, it is important that this aspect is properly contextualized and measured.

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