PostScript

LETTERS

Smoking brings another danger to children in Japan

The other day, I was walking in a crowded street near a subway station in Tokyo with my 7 year old son. He was so curious that he frequently stopped to look at something before running to catch up me. Predictably, he ran into a man who was walking and holding a lit cigarette which fell after their collision. I feared that the lit cigarette might hit my son in his face or eye. However, he did not sustain any injury because the cigarette only touched his hair.

In-street smoking while walking is becoming prevalent as most public places, including stations, workplaces, and schools, have become non-smoking zones. Smokers, prohibited from smoking in trains and stations, light cigarettes once they get to the street.¹ They are usually holding cigarettes at their chest or waist levels, equivalent to the face level of children or people in wheelchairs.

Lit cigarettes may cause facial or eye injuries and could cause blindness to toddlers.² Children can dart towards smokers while the smoker's attention is diverted from the cigarette. Not only do cigarettes cause chronic diseases but they also result in burns or as foreign bodies in natural orifices, especially among children. Tobacco products are the number one cause of poisoning among children under 5 years old in Japan, accounting for about 20%.³

In addition, lit cigarettes are also the leading cause of residential fire deaths in Japan, accounting for 19%.⁴ Fires not only damage people but also destroy houses, workplaces, and natural environments, resulting in a global burden physically, emotionally, and economically.⁵

More importantly, the threat of these injuries undermines our feeling of safety, even though their occurrence may be uncommon. Parents with children or people in wheelchairs are fearful of being injured in the streets and this may deter them from going out. As WHO notes, reducing injuries

or violence is not enough—subjective safety is also needed.⁶

Child outdoor or home environments are still not safe. Recently, several municipalities in Japan enacted a bylaw that bans smoking in crowded streets. The first was in the Chiyoda ward, a business center of Tokyo. To protect people from passive smoke, the Health Promotion Law was enacted in May 2003 but only covers indoor spaces. We need to persuade policymakers to expand such legislation. We also need to continue efforts to stop smoking in homes where children live.

S Nakahara

Department of International Community Health,
Graduate School of Medicine, The University of
Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo
113-0033, Japan; shinji@m.u-tokyo.ac.jp

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References

- 1 Nakahara S, Ichikawa M, Wakai S. In-street smoking in crowded streets near a subway station in Tokyo. *J Natl Inst Public Health* 2003;52:344-5. Available at <http://shoroku.niph.go.jp/kosyu/2003/200352040013.pdf> (accessed 27 May 2005).
- 2 Awan KJ. Smoking and eye injuries to toddlers [letter]. *JAMA* 1984;251:3080.
- 3 Goto K, Kuroki Y, Shintani S, et al. Accidental poisoning of children in Japan: a report from the Japan Poison Information Center. *Acta Paediatr Jpn* 1993;35:193-200.
- 4 Fire and Disaster Management Agency. *Shobo hakusho 2004*. The agency, 2005 [in Japanese].
- 5 Leistikow BN, Martin DC, Milano CE. Fire injuries, disasters, and costs from cigarettes and cigarette lights: a global overview. *Prev Med* 2000;31:91-9.
- 6 Quebec WHO Collaborating Center for Safety Promotion and Injury Prevention, WHO Collaborating Center on Community Safety Promotion in Karolinska Institute, and WHO. *Safety and safety promotion: conceptual and operational aspects*. Quebec: The Center, 1998. Available at http://www.phs.ki.se/csp/pdf/Books/promo_en.pdf (accessed 27 May 2005).

Intelligence, education, and transportation injury mortality

We read with interest the paper by Borrell and colleagues¹ in the June issue of *Injury Prevention* which reported on the relation between educational level and the risk of transportation injury mortality in nine European cohorts. An inverse association was reported in men but not women. We believe that findings from the field of cognitive (intelligence) epidemiology² may inform the discussions pertaining to the underlying mechanisms. Here, we define intelligence (denoted as IQ and assessed using written psychometric tests) as an individual's ability to learn, reason, and solve problems.

Recent reports of extended follow ups of individuals who sat intelligence tests in childhood reveal relations between IQ scores and later health outcomes, including total mortality, coronary heart disease, and

suicide. That is, people with lower IQ in early life experience a greater risk of these outcomes in adulthood.² For the most examined outcome—total mortality—the relation with early IQ is strong, incremental, and consistent across a number of study populations and research groups.² An inverse association between early adult IQ and later motor vehicle accident mortality in Australian Vietnam Army conscripts has also been found.³

Education and IQ are moderately strongly correlated; therefore, education may in part be a proxy for IQ. Some of the mechanisms that we have advanced to explain the associations between IQ and total mortality² may also have relevance to transportation injury mortality. First, IQ may be related to behaviors conducive to health which lie on the IQ-mortality pathway. For transportation injury mortality, such behaviors may include a greater use of protective devices (for example, cycle helmets, seat belts) in people with higher IQ scores. This relates to the "differential exposure" hypothesis advanced by Borrell *et al.*¹ Some support for this suggestion can be found in studies which show that individuals with higher educational attainment are more likely to wear cycle helmets than those with more basic qualifications.⁴ Second, information processing speed is a fundamental contributor to IQ differences, with which it is strongly correlated. An ability to process information rapidly and accurately is required in all forms of transportation, particularly those of higher speed such as car and motorbike use.

Whereas we are mindful of the maxim that "all findings can be explained by unmeasured confounding variables", we think that intelligence differences are worth considering at least as a partial explanation for the association between educational level and transportation injury mortality.

G D Batty

MRC Social & Public Health Sciences Unit, University of Glasgow, Glasgow, UK

G D Batty, I J Deary

Department of Psychology, University of Edinburgh, Edinburgh, UK

Correspondence to: Dr G D Batty, MRC Social & Public Health Sciences Unit, University of Glasgow, 4 Lilybank Gardens, Glasgow G12 8RZ, UK; david-b@msoc.mrc.gla.ac.uk

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References

- 1 Borrell C, Plasencia A, Huisman M, et al. Education level inequalities and transportation injury mortality in the middle aged and elderly in European settings. *Inj Prev* 2005;11:138-42.
- 2 Batty GD, Deary IJ. Early life intelligence and adult health. *BMJ* 2004;329:585-6.
- 3 O'Toole BI. Intelligence and behaviour and motor vehicle accident mortality. *Accid Anal Prev* 1990;22:211-21.
- 4 Irvine A, Rowe BH, Sahai V. Bicycle helmet-wearing variation and associated factors in Ontario teenagers and adults. *Can J Public Health* 2002;93:368-73.

When walking, smokers tend to hold cigarettes at the face level of children or people in wheelchairs. Photo: Michael Muir.