

Can Childhood Disability Be Ascertained Simply in Surveys?

The answer is probably yes. But why is this simple ascertainment needed? Rapid and efficient survey methods are needed to ascertain childhood disability, to formulate relevant policies, and to implement programs and monitor rehabilitation, prevention, and human rights. Four major methods of survey assessment are often proposed: (a) interviewing child caretakers about the basic functional limitations of children; (b) posing questions about reduction in activities of daily living of children; (c) reporting children who receive services and treatment for disability; and (d) performance testing of children under survey conditions.

Durkin *et al*¹ utilize a simple and cost-efficient survey approach by interviewing primary caretakers of specific children using 10 questions. These questions cover such problems of children as: (1) serious delay

in sitting, standing, or walking; (2) difficulty seeing either in the daytime or at night; (3) difficulty hearing; (4) difficulty understanding what is being said; (4) difficulty in walking or moving arms, or weakness/stiffness in arms or legs; (5) difficulty learning to do things like other children their age; (6) speaking at all or making oneself understood in words; (7) having speech that is different from other children in their age group; (8) appearing dull, slow, or mentally backward; (9) sometimes having fits, becoming rigid, or losing consciousness; and (10) having serious health problem(s).

The 10 simple questions, with some caveats, have held up under strict testing for their validity and reliability. The positive findings of Durkin *et al* strengthen arguments for the continued use of such simple questions to identify children with disabilities, rather than using more complex questions about limitations in daily activities and services or treatment received, or conducting performance tests.

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The 10 basic questions, tested in developing countries, may also prove useful in survey assessment of children in developed countries. If this proves to be the case, then there is potential for reasonably comparable childhood disability indicators to be produced for national, subnational, and even international comparisons, based upon straightforward survey interviews of child caretakers.

It is noteworthy that basic functional limitation questions have also been effectively tried for screening a number of adult populations.²⁻⁴ For example, the Canadian Health and Activity Limitation Survey of 1986 screened the total population age 15 years and older using 21 questions, which included such topics as: (1) trouble hearing what is said in a normal conversation; (2) trouble hearing what is said in a group conversation; (3) trouble seeing clearly the print on a page; or (4) seeing the face of someone from 12 feet or 4 meters; (5) speaking and being understood; (6) moving from one room to another/moving about in a room; (7) standing; (8) bending down and picking things up; (9) using fingers to grasp or handle items; (10) experiencing activity limitation from a long-term physical or health condition.

Although not identical in their approaches, the childhood Ten Question screen of Durkin *et al* and the Canadian population screen were similar; both used simple disability questions about basic function, and both were shown to be effective tools for ascertaining disability. The primary difference is that the adults in the Canadian survey were interviewed directly, whereas the children were identified through interviews with their caretakers.

Curiously, however, in Canada these basic functional questions asked of adults were not tried on children under 15 years of age, with the exception of two questions, which covered (1) trouble hearing; and (2) trouble speaking and being understood. The remaining survey questions for identifying disabled Canadian children focused upon reports of the special services received by children and technical aids used by them, and were backed up by a general question covering reported health conditions that prevented participation in school, at play, or at other activities normal for their age group.

In a country such as Canada, where service provision is largely universal in coverage, it is possible to depend largely upon reports by caretakers of children's services and upon treatment received to identify disabled children. It would be most instructive, however, if in the future a developed country such as Canada were to apply the same simple 10 disability questions of func-

tional limitation that were used in developing countries. These 10 basic questions could then be compared with service questions as screens for childhood disability.

Durkin and colleagues found that children in developing countries who had been previously tested and/or treated for vision and hearing problems were more likely to be reported by the child's caretaker to have problems of vision and hearing. Children with hearing and vision problems who had never been tested or treated were more likely to be reported erroneously as not having any visual or hearing disability when the 10 basic questions were asked. This finding indicates that it is useful to ask the caretaker about services that the child has already received, in both developing and developed countries.

The work of Durkin *et al* supports the idea that simple questions to primary child caretakers can increase survey efficiency in ascertaining childhood disability and can still be reasonably valid and reliable, as opposed to using the more complex questions covering *activities of daily living*, such as questions about using the toilet, getting dressed, preparing food, etc. Activities of daily living questions have been used to ascertain disabilities of adults and elderly persons in a number of surveys. Children, however, by their very nature, are expected to have difficulties with such activities as using the toilet, dressing, and food preparation, especially between the ages of 2 and 9. It would not be reasonable to screen children into disability surveys with such questions; almost all children would erroneously be reported as disabled. Findings of Durkin *et al* indicate that survey researchers should be encouraged to ask questions covering simpler functions such as seeing people's faces, hearing conversations, understanding speech, moving from place to place, grasping small items, etc, since these simple functions are less culturally prescribed and less age related than are activities of daily living. Having found out which children are vulnerable to disability using the 10 basic questions, then investigators could pose more detailed questions of performance in age-specific daily activities.

Children may also be assessed for their performance under testing conditions. Performance testing of children at home during a survey interview, however, is time consuming and strongly culture bound. It requires that a child perform upon request during a survey interview, and that the child be present: a difficult task for some children, especially when strangers are in the room, or if children attend school during the day. There are times, however, when performance testing of children has been shown to be

more valid and reliable than caretaker reporting for childhood assessment of disability. Guidelines for vision assessment in surveys and performance testing for hearing without audiometry have been prepared by the World Health Organization (B. Thylefors, Programme Manager, Programme for the Prevention of Blindness, World Health Organization, CH-1211 Geneva 27, Switzerland, personal communication).

The 10 simple screening questions of Durkin *et al* may need to be amended in the future to include simple performance testing of children, at least for vision and hearing in areas where it is very likely that testing services are not widely provided to children. In areas where services are more universally provided, it may be sufficient to augment the 10 simple survey screening questions for childhood disability with questions to the child's caretaker concerning previous treatment and testing of the child for vision and hearing problems. Whether services are available or not, the

Ten Questions provide essential information that will be readily understood by all concerned.

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