

Prevalence of Childhood Disability in Basrah City Using the Ten Questions Too

Hajer Salim AlMosawi¹, Sajjad S. Issa², Mohamad A. Akber³

¹Pediatric Nursing, ²Family Medicine, ³Orthopedic Surgeon, Department of Fundamental of Nursing, College of Nursing, University of Basra, Basra, Iraq

Abstract

Background: The neglect of disabled children in the developing countries and less information about its types and prevalence in addition to the low level of health services they had.

Aim: To identify the prevalence of handicapping disabilities among children up to 9 years of age and their epidemiological pattern in the Basrah city center.

Methods: In a population-base, cross-sectional household survey was carried out in Basrah city. A total sample (1734) children, males were 56% and females were 44 % of the sample using the ten questions survey tool.

Results: The survey team detected 73 disability cases 48 were males and 25 were females. The detected prevalence of disability in our sample was 37.7%. Disabled children, on average, were in the fourth or fifth birth order among their brothers and sisters and 47 % of them were counted as the second or third disability in the same family. The number of disabling conditions in the same child varied widely: 31.5% of cases had a single disability, 24.6% had two conditions and 43.8% had three or more conditions. The questionnaire children up to 9 years of age in these families formed 56.2% of the population.

Conclusion: The survey managed successfully to document a comparable estimate of the prevalence rate for childhood disabilities in the community and provided a general picture of their types and suspected causes. It also reported a low service delivery for these disabilities and identified some risk factors related to their occurrence. To apply this survey method in center Basra city is justified in an extended field study with certain modifications to suit the local culture. This study also should be complemented with a second stage referral for follow up examination of detected cases of and evaluation of the disability and its required services.

Keywords: Prevalence, Childhood disability, Basra, Ten questions tool

Introduction

In countries with reasonably well-developed services for children with Disabilities, administrative data and registries provide a useful source of population-based

Information on childhood disabilities¹. In developing countries, where services for children with disabilities are not universally available, administrative data, if available at all, provide an incomplete account. Census Data provide an alternative source of population data on disability, but it is likely that²these data under-identify disabilities in children and especially in girls and children of low socioeconomic status¹¹. A third approach is the so-called 'key informant' approach, which relies on interviews with teachers, health care providers and other key persons in a community to identify children in the population with disabilities. This approach, however, has been shown to miss disabilities that are least publicly

Corresponding author:

Prijambodo

Department of Radiology, Faculty of Medicine,
Universitas Airlangga, Dr. Soetomo Teaching Hospital,
Surabaya, Indonesia 60131

Phone: (+62) 85850083032

E-mail: prijambodoradiologyunair@gmail.com

evident, such as cognitive and hearing disabilities¹². A fourth approach consists of household surveys³.

However, information on the validity of single-phase survey data on disabilities in children is lacking, especially in developing countries. In addition, instruments that have been used to survey childhood disabilities in developed countries are unlikely to be cross-culturally valid in developing countries. The above considerations led to the development of a two-phase methodology for surveying childhood disabilities in populations where professional resources are extremely limited. This paper describes the methodology, presents data on its reliability and validity across culture, discusses its uses and limitations, and identifies areas for future research⁴. The need for information on the frequency of childhood disabilities in populations, as well as the status and characteristics of children with disabilities, has been emphasized repeatedly¹⁻⁷. For example, information on the number and status of children with mental retardation, learning, vision, hearing and seizure disabilities⁵. Behavioral disorders is needed to monitor on a population level the impacts of: improvements in survival; exposures to nutritional deficiencies, environmental toxins, serious diseases and trauma; and interventions designed to improved child health and development. In addition, population-based, epidemiologic studies of childhood⁶. Disabilities are needed for identifying risk factors and causes, and for needs assessments to facilitate planning of services for children and families with special needs⁷.

In countries with reasonably well-developed services for children with disabilities, administrative data and registries provide a useful source of population-based information on childhood disabilities⁸⁻¹⁰. However, in most low income or developing countries, where services for children with disabilities are not universally⁸. Available, administrative data, if available at all, provide an incomplete account. Census data provide an alternative source of population data on disability, but it is likely that these data under-identify disabilities in children and especially in girls and children of low socioeconomic status¹¹ a third approach is the so-called 'key informant'⁹. Approach, which relies on interviews with teachers, health care providers and other key persons in a community to identify children in the with disabilities. This approach, however, has been shown to miss disabilities that are least publicly evident¹⁰.

Such as cognitive and hearing disabilities and to include children from outside the population of interest¹¹. A fourth approach consists of household surveys. However information on the validity of single-phase survey data on disabilities in children is lacking, especially in developing countries. In addition, instruments that have been used to survey childhood disabilities in developed countries are unlikely to be cross-culturally valid in developing countries¹². The above considerations led to the development of a two-phase methodology for surveying childhood disabilities in populations where professional resources are future research extremely limited. This paper describes the methodology, presents data on its reliability and validity across culture, discusses its uses and limitations, and identifies areas for Handicapping disabilities in both developing and developed countries are important public health issues¹³.

Basic data on their frequencies, underlying risk factors and associations are necessary in order to plan health programs and to provide social services for them. Screening in community surveys is a good strategy for providing a quick insight for this problem among children¹⁴. Many community surveys have been conducted for handicapped children in various parts of the world." the ten-questions survey tool was proposed for this purpose and has been validated for its sensitivity and specie city in many developing countries. This paper is reporting a led survey in Jeddah, Saudi Arabia¹⁵. In which a population-based study has applied the ten-questions tool to estimate the prevalence of handicapping disabilities among children up to 9 years of age and describe the epidemiological pattern of disabilities in the eastern part of the city. The study was part of the training led survey for male medical students in the Medical College. All children have a right to care by a parent or trusted adult¹⁶. In countries with reasonably well-developed services for children with disabilities, administrative data and registries provide a useful source of population-based information on childhood disabilities.

Material and Method

Study setting and population

A Population based cross-sectional study carried out in Basra city from October 2016 to February 2017. The estimated population of Basra city center is 38,989 and about 28.7% of that population being female in

child bearing age. Interviews at the selected houses were conducted primarily by gathering the basic socio-demographic information of the family from the head of the family, usually the father. Variables included in this part were family income, number of family members, age of the child, ages of parents, occupation of parents, educational level of parents, history of disabilities in either parents families and consanguinity between parents. The ten questions tool with their probes was explained to the head of the household to detect any disabled member of the family in the age 9 or below. Houses with no children at the required age were skipped and replaced by the next one fulfilling the research criteria. The detailed questionnaire was filled for any child with a positive answer on one or more of the disability questions.

The study sample and data collection

Total 1734 samples were collected to study the prevalence rate of childhood disabilities in Basra center from November 2016 to March 2017. The percentage of under nine years children from the total population is about 11.8% (WHO).

Statistical analysis

The data were fed to the (SPSS) program (version 16) for interpretation of result, through the application of the descriptive data analysis frequency and percentage.

Results

In the present study, we have screened 4601 population and about 1734 samples were collected for further studies. So the prevalence can be calculated as follows

$$\text{Prevalence} = 1734/4601 * 100 = 37.7 \%$$

In the collected samples (1734), about 984 (56%) were males and 750 (43.2%) were females. It shows the high percentage male (56%) and the lower percentage female (43.2%) from the total sample.

Table 1. Characteristics of number of disable children in the family

Number of children	No.	%
1	5	6.8
2	30	41
3	37	52
Total	73	4.2

The high percentage (52%) of the studied families had three disabled child while the lowest percentage (6.8%) of families had only one disabled child's.

Table 2. Characteristics of order of birth of disable child among their sibling in the family

Order	No.	%
1	2	2.7
2	3	4.1
3	3	4.1
4	40	54.7
5	25	34.2
Total	73	4.2

This table show that the high percentage (54.7%) of disabled children had the fourth order of birth among their siblings in the family while the lower percentage (2.7%) have had the first order.

Table 3: Age frequencies of all children and the disabled group

Age	Disabled group		All children	
	No	%	No	%
1 year >	1	1.3	85	4.9
1 – 2	8	10.9	121	6.9
2- 6	23	31.6	619	35.6
6-	41	56.2	909	52.4
Total	73	42	1734	43.3

This table show disabled group in age (6 -9) has 56.2% the high percentage this age group high percentage in total sample.

Table 4. Frequency of various types of disabling conditions in Basra city

Condition	Previously diagnosed	Newly identified
Speech	23	3
Motor	12	2
Mental	9	3
Fits	7	1
Learning difficulty	6	2
Hearing	7	1
Vision	4	1
Emotional problem	3	1
Chronic or hereditary	2	1

Conditions have not been totaled due to multiple disabilities in some cases.

Table 5. Causes of disabilities as perceived by parents

Suspected cause of disability	No	%
Hereditary causes	37	50.6
Non hereditary illnesses	10	13.6
Accidental/traumatic causes	4	5.4
Other causes	2	2.7
Unknown cause	20	27.3

This table show high percentage 50.6 the parents believes hereditary causes and the lower percentage 2.7 has other causes.

Discussion

Disabled children in developing countries are estimated to form 85% of the world’s disabled children). Accurate determination of the prevalence is hindered by a group of inherent problems in these countries including under reporting, late identification, poor registration and lack of infrastructure for their monitoring and service provision.To overcome these shortcomings, a variety of methods were tried in order to identify disabilities at the community level.These include the addition of questions to the national census

and the interviewing of key informants in the community such as community leaders and teachers. The previous methods were found to produce serious faults of under-enumeration of handicapping conditions and under representation of children and women. “Researchers in developing countries have proposed the use of the ten question tool in a house survey to overcome these drawbacks. The questionnaire Children up to 9years of age in these families formed56.2% of the population (1734)with male forming 56% of them.Household. Using the ten questions survey tool, the survey team detected 73`disability cases in the age group males.. Disabled children, on average, were in the fourth or fifth birth order among their brothers and sisters and 47 % of them were counted as the second or third disability inthe same family. The number of disabling conditions in the same child varied widely: 31.5% of cases had a single disability, 24.6% had two conditions and 43.8% had three or more conditions. These conditions were categorized according to the answers on the ten questions (table 6). Disabled children. The survey tool managed to document, successfully, a prevalence rate of childhood disabilities in the community with a general picture of their types and suspected causes which is quite compare to that found in Saudi Arabia, a multistage sampling method was applied to screen children in 875 houses using the ten questions survey tool for identification of disabilities. Further information collected for detected disabilities possible risk factors, cause of the disability as perceived by the family and services previously provided to the child. Results: A total of 137 cases of disability were detected giving a point prevalence rate of 36.7 per 1000 children. Twenty-nine children (21.2%) were discovered for the rest time during the survey. The majority of cases were male (57.7%) and the mean age for all cases were 10 years (SD⁻ 5.5) with no case detected under one year of age. Disabled children were in the fourth or fifth birth order among their brothers and sisters and 47 (34%)of them were recorded as a second or third disability in the same family. Number of disabilities in the same child varied widely: 59% of cases had a single disability, 22% had two conditions and 19% had three or more conditions.^{(17) (18)(19)}

Conclusions

The survey managed successfully to document a comparable estimate of the prevalence rate for childhood disabilities in the community and provided a general picture of their types and suspected causes. It also reported a low service delivery for these disabilities and

identified some risk factors related to their occurrence. To apply this survey method in Basra city is justified in an extended field study with certain modifications to suit the local culture. This study also should be complemented with a second stage referral for follow up examination of detected cases of and evaluation of the disability and its required services.

Conflict of Interest - Nil

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Ethical Clearance- Not required

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