

Identifying children with Special Health Care Needs in Alexandria, Egypt

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Objective

To test the feasibility of using an Arabic version of CSHCN Screener in identifying CSHCN in the Egyptian setup and to estimate the prevalence of CSHCN among children aged 6-14 years in Alexandria, Egypt using the Arabic version of the CSHCN Screener.

Introduction

Children with special health care needs (CSHCN) are defined as: “those who have or are at increased risk for a chronic physical, developmental, behavioural, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.” [1] The care of CSHCN is a significant public health issue. These children are medically complex, require services and supports well beyond those that typically developing children require, and command a considerable proportion of the pediatric health care budget [2]. Different tools were used to identify CSHCN [3,4]. One of them is the CSHCN screener [5] which uses a non-condition specific approach that identifies children across a range and diversity of childhood chronic conditions and special needs [6]. It identifies children with elevated or unusual needs for health care or educational services due to a chronic health condition. It focuses on health consequences a child experiences as a result of having an ongoing health condition rather than on the presence of a specific diagnosis or type of disability. It allows a more comprehensive assessment of the performance of the health care system than is attainable by focusing on a single diagnosis [7]. The CSHCN screener is only available in English and Spanish [8].

In developing countries, obtaining reliable prevalence rates for CSHCN is challenging. Sophisticated datasets associated with governmental services and high quality research studies are less common due to fewer resources. Egypt has no screening or surveillance systems for identifying CSHCN [9].

Methods

A community based survey was conducted among a representative sample of children aged 6-14 years from the 8 health districts of Alexandria, Egypt using a multistage cluster sampling technique. The final sample amounted to 501 children from 405 families. Data about the children and their families were collected by interviewing the mothers of the selected children using a pre-designed interviewing questionnaire. The questionnaire included their personal and family characteristics in addition to the Arabic translation of CSHCN screener. Permission to translate the questionnaire into the Arabic language was obtained from the Child and Adolescent Health Measurement Initiative. Validation and cultural adaptation of the translated CSHCN screener were done. The survey questions were generally understandable by Arabic speakers. As for the screener questions, the Arabic translation was straightforward and clear. The difference between the Arabic translation for the words “health conditions” and “medical conditions” in the 1st follow up questions was not clear for the respondents and the interviewers had to give an explanation for the two terms to help the respondents. So, it was easier for the respondents to answer the screener questions than the follow up questions.

Results

Out of the 501 children included in the study, 61 were identified by the screener to be CSHCN, making a prevalence of CSHCN of 12.2%. The prevalence of children with dependency on prescription medicine was 11.8%, while the prevalence of children with service use above that considered usual or routine was 11.8%. The prevalence of children with functional limitations was 12%. Among these domains, in almost all children, the reason was a medical, behavioral or health condition (98.3%) and the condition has continued or is expected to continue for at least 12 months in all children. Among CSHCN, the majority (91.8%) had these three domains combined.

Sensory impairments ranked first among the most prevalent conditions requiring special health care with a prevalence of 2.8% which represented 23% of the conditions, followed by cognitive impairments with a prevalence of 2% representing 16.4% of all



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conditions requiring special health care. Impaired mobility was the third most common condition requiring special care with a prevalence of 1.8%.

The table shows that CSHCN were more likely to be in the younger age group (6-<10 years), to be males, to be the first in order among their siblings and to have an illiterate or just read and write father. On the other hand, CSHCN were less likely to have a university educated mother, to be living with both parents and to be from a family without an enough income. The only significant factor was the type of family (cOR=0.88, 95% CI = 0.85-0.91).

Conclusions

The study showed the feasibility to use the CSHCN screener in the Egyptian National health care services to easily identify the majority of children that need to be the focus of the National health care services. It could also be an easy tool to assess the quality of the ongoing school health programs in responding to the overall needs of school children.

With the present Egyptian policy of reform giving special attention to people in need particularly sensitive groups such as school children, it is therefore recommended that the school health services, in addition to the ongoing diagnostic, preventive and curative services add an additional measure, namely the screener for CSHCN, which is a simple easily administered screening tool which will also assist to depict existing gaps in the health care system to ensure being comprehensive.

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Table 1. Crude odds ratio of special health care needs among children aged 6-14 years and their personal and family characteristics (Alexandria, 2017)



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Personal and family characteristics	cOR	95% CI
Child's age (from 6-<10 vs 10+)	1.21	0.71-2.08
Sex (males vs females)	1.49	0.86-2.60
Order among siblings (1st vs others)	1.11	0.65-1.92
Father's education (illiterate or read and write vs others)	1.12	0.64-1.91
Mother's education (university vs others)	0.93	0.31-2.76
Type of family (living with both parents vs others)	0.88*	0.85-0.91
Family income (not enough vs others)	0.76	0.44-1.29

* Significant ($p < 0.05$)



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