Short communication

Iraqi parents’ views of barriers to childhood immunization

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ABSTRACT Deficiencies in knowledge about immunization among parents often leads to poor uptake or errors in immunization dosage and timing. The aims of this study were to determine Iraqi parents’ views of barriers to immunization and beliefs about ways to promote immunization. A questionnaire survey was carried out among 528 Iraqi parents with children who had incomplete immunization status. The main barriers to immunization agreed by the parents were lack of vaccine availability (51.5% of parents) and parents’ lack of education (42.4%), while 88.4% of parents thought that lack of funding was not an important barrier. More than 60% of the parents suggested promoting childhood immunization via the media, and 77.5% thought that an increase in funding would not remove barriers to childhood immunization. Better vaccine availability in public health clinics and improving parents’ literacy might enhance immunization uptake in Iraq.

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Introduction

Deficiencies in knowledge about immunization among parents often leads to poor uptake or errors in immunization dosage and timing. There are many barriers to childhood immunization, including parents’ misinformation about vaccines and vaccine-preventable diseases, about adverse effects and contraindications to vaccination and about the risk of disease after receiving vaccine [1–6]. Many studies show that parents’ knowledge about childhood immunization varies according to the family physician and other medical staff [7–9]. Although parents would like to know about adverse effects and benefits of vaccines, it has been shown that many physicians include vaccine risks in their discussion with parents without any discussion of infectious disease risk [10].

The aims of this study were to determine Iraqi parents’ views of barriers to immunization and beliefs about ways to promote immunization. This study was the first of its kind in Iraq.

Method

Sample

This was a cross-sectional prospective survey targeting Iraqi parents whose children had missed one or more immunization doses. Using cluster sampling the questionnaires were distributed to 528 parents attending public health clinics in Mosul, Iraq January 2010.

The research proposal was approved by the Ministry of Health in Baghdad, Iraq. A covering letter including an information sheet describing the study objectives and time needed to fill the questionnaire was given to parents with an attached consent form.

Data collection

The data collection was carried out using an interview questionnaire developed to assess knowledge, attitudes and practice about immunization. The questionnaire was delivered to the parents by the researcher or a nurse from the same health clinic and took about 15 minutes to complete.

The questionnaire consisted of multiple-choice and closed-ended questions related to immunization barriers and suggested solutions. Barriers against immunization were: lack of education (parents’ low education level), lack of funds (low family income), lack of availability (poor vaccine availability in clinics), lack of facilities (poor immunization service in clinics) and fear (fear of vaccine side-effects). Suggested solutions for how to promote immunization included: education of the population, education of mothers, promotion through the media, increasing population literacy, increasing funding for vaccination and improving facilities for vaccination. The Arabic version of the questionnaire was has been previously validated in Iraq [11].

Results

Lack of vaccine availability was considered to be a barrier to immunization by 51.5% of parents, followed by lack of education (42.4%), and lack of facilities (30.1%), while low family income was not considered an important immunization barrier by most parents (88.4%) (Table 1).

More than 60% of parents suggested child immunization programmes needed to be promoted in the media. Many also agree that educating mothers (44.7%) or population education (43.0%) were solutions, while 77.5% of parents did not consider that increases in funding would improve childhood immunization (Table 1).

Discussion

Immunization barriers are multiple, including lack of education, money [12], vaccine availability, provider facilities [13] and fear of vaccination side-effects. Immunization can be promoted by advertisements about immunization in the media and improving mother’s education. In other studies misinformation about vaccination, beliefs regarding vaccination effect, vaccination cost and vaccines access were shown to be the most important barriers [1–3].

| Table 1 Iraqi parents’ opinions of barriers to immunization and ways to promote immunization |
|---------------------------------|---------|---------|---------|---------|
| Variable                        | Yes     | %       | No.     | %       |
| **Barriers to immunization**    |         |         |         |         |
| Lack of vaccine availability    | 272     | 51.5%   | 256     | 48.5%   |
| Parents’ low education          | 224     | 42.4%   | 304     | 57.6%   |
| Lack of health facilities       | 159     | 30.1%   | 369     | 69.9%   |
| Fear of vaccine effects         | 122     | 23.1%   | 406     | 76.9%   |
| Families’ lack of money         | 61      | 11.6%   | 467     | 88.4%   |
| **Ways to promote immunization**|         |         |         |         |
| Via the media                   | 328     | 62.1%   | 200     | 37.9%   |
| Mothers’ education              | 236     | 44.7%   | 292     | 55.3%   |
| Population education            | 227     | 43.0%   | 301     | 57.0%   |
| Facility improvements           | 196     | 37.1%   | 322     | 62.9%   |
| Increased literacy              | 143     | 27.1%   | 385     | 72.9%   |
| Increased funding               | 119     | 22.5%   | 409     | 77.5%   |
In this study, vaccine unavailability and parents’ lack of education were considered to be barriers by the greatest proportion of parents (51.5% and 42.4% respectively). Few parents believed that lack of funding was a barrier (11.6%), presumably because children in Iraq receive free vaccination from health providers, which is supported by the World Health Organization. Education is very important to improve the vaccination status and to decrease immunization errors. The results of our study agree with studies in Bangladesh, the United States and Pakistan showing that lack of education of the mother and lack of time were the main barriers to immunization [10,14,15]. However, in another study in Pakistan funding was considered by family practice patients to be the most important immunization barrier [16].

**Conclusion**

This study is the first study of its kind in Iraq. Based on the results we could recommend increasing vaccine availability in public health clinics and improving parents’ education about immunization through media programmes or through increasing literacy. Family income or funding for immunization were not viewed as important barriers.

**References**