



Contents lists available at ScienceDirect

Vaccine

journal homepage: www.elsevier.com/locate/vaccine

Parental perceptions, attitudes and acceptance of childhood immunization in Saudi Arabia: A cross sectional study

Thamir M. Alshammari^{a,b,c,*}, Gehad M. Subaiea^a, Talib Hussain^a, Afrasim Moin^a, Kazeem B. Yusuff^d

^a University of Hail, College of Pharmacy, Hail, Saudi Arabia

^b Medication Safety Research Chair, King Saud University, Riyadh, Saudi Arabia

^c Saudi Food and Drug Authority, Riyadh, Saudi Arabia

^d King Faisal University, College of Clinical Pharmacy, Alahsa, Saudi Arabia

ARTICLE INFO

Article history:

Received 14 August 2017

Received in revised form 29 October 2017

Accepted 15 November 2017

Available online xxx

Keywords:

Vaccine

Immunization

Parents

Cross sectional

Children

Saudi Arabia

ABSTRACT

Objectives: The widespread availability and use of vaccines have tremendously reduced morbidity, mortality and health care costs associated with infectious diseases. However, parental beliefs about vaccination are one of the major factors in achieving high vaccination rates. Thus, this study aims to assess the perceptions and attitudes regarding routine childhood immunization among Saudi parents.

Methods: A cross sectional study with a pre-tested 18-item questionnaire was conducted using 467 randomly selected parents from the Hail region of Saudi Arabia in the period between February 1st, 2016, and February 1st, 2017. The validated questionnaire consisted of three sections that collected information on participants' demographics, parents' awareness of vaccine benefits, and parents' practices regarding the immunization of their children.

Results: Female and male parents comprised 54.5% (255) and 45.5% (212) of the sample, respectively, and the response and completion rates were 97%. The majority of the respondents had received a formal education (94.1%, 439), were gainfully employed (62.9%, 294) and had a regular monthly income (73.3%). The majority of the respondents were aware of childhood vaccinations (78.9%), completed vaccinations mandated for children up to 5 years (86.2%), encouraged other parents to do so (89.9%), and had easy access to vaccines (90.5%). Sixty to ninety percent of the respondents were knowledgeable regarding the health benefits of vaccinations in children, even though 18.4% of their children had experienced vaccination-related minor adverse effects during or after vaccination of which 23.2% required doctor's visits. Health care professionals were the most frequent source of parents' vaccine-related information (65.2%), and vaccination reminder services provided by the Ministry of Health (MOH) via mobile phones were cited by 57.5% of respondents.

Conclusions: Confidence in and acceptance of childhood vaccinations, perceptions of vaccine-related health benefits and ease of access to immunizations appeared to be quite good among Saudi parents.

© 2017 Elsevier Ltd. All rights reserved.

1. Introduction

Humanity's epic battle for the control of morbidity and mortality associated with infectious diseases dates to the beginning of time. This quest took a quantum leap with the advent of the age of modern medicine, as interventions that cure, control or prevent diseases became widely available. Vaccines and other biologics unarguably remain the most important therapeutic interventions

of the modern era and have dramatically improved public health in ways that were previously unknown [1,2].

The widespread availability and use of vaccines have tremendously reduced morbidity, mortality and health care costs associated with infectious diseases and have improved the quality of life of patients worldwide [3,4]. The strong vaccination programs and cultures in most developed and some developing countries often result from a combination of strong political will, adequate allocation and management of health resources and the implementation of an effective framework for the management of vaccine procurement, storage, distribution and use [5].

However, the situation in developing countries presents a stark contrast, as this segment of the world continues to lag behind the immense progress in reducing the morbidity and mortality of

* Corresponding author at: University of Hail, College of Pharmacy, Department of Clinical Pharmacy, P.O. Box 6166, Zip code 81442, Hail City, Saudi Arabia.

E-mail addresses: Thamer.alshammari@gmail.com, Th.alshammari@uoh.edu.sa (T.M. Alshammari).

vaccine-preventable diseases [6,7]. The Global Vaccine Action Plan (GVAP) is a framework adopted by World Health Organization (WHO) to have a world in which all individuals and communities enjoy lives free from vaccine-preventable diseases by 2020 [8]. Several studies have identified factors underlying this lack of progress, including weak health infrastructure, misconceptions and misperceptions about the efficacy and safety of vaccines, low health literacy, vaccine resistance and hesitancy, and cultural and religious factors [9–14]. Furthermore, parental concerns regarding vaccine safety, immunization schedules, and multiple vaccinations continue to present important challenges [15–18].

High vaccination rates in developing countries, including countries of the Middle East, are becoming increasingly hampered by rumors that vaccination programs are covert attempts to cause harm. This false narrative, which is often peddled by religious clergy, has become a significant threat to immunization programs [14,19–21]. Furthermore, the occurrence of adverse drug reactions from routine vaccinations and/or adverse events due to poor vaccination practices may have also compounded the problems of vaccine aversion and/or hesitancy [22].

However, the situation in the Gulf countries of the Middle East, including Saudi Arabia, appears to be markedly different. In Saudi Arabia, the extent of routine immunization coverage is comparable to developed countries [23]. The requirement of an evidence of childhood vaccination as a prerequisite for school admission appears to be a strong contributing factor to the high immunization rates in Saudi Arabia. However, this may provoke parental vaccine aversion and non-compliance [24]. Therefore, an assessment of parental perceptions and attitudes toward vaccinations in Saudi Arabia is warranted and may provide valuable insights that may be useful for developing interventions in other parts of the Islamic world, while also adding to the global knowledge in the study area. Furthermore, according to studies in developed countries, parental concerns persist, despite high levels of confidence in and acceptance of vaccination. In addition, a high vaccination rate is an inadequate predictor for the absence of parental concerns or misperceptions [15]. Hence, continuous engagement with parents to identify probable misperceptions and concerns remains warranted. A limited number of published studies have focused on parental perceptions about childhood vaccination in Saudi Arabia. Therefore, the objective of the current study was to assess perceptions of and attitudes toward routine childhood immunization among Saudi parents.

2. Methods

2.1. Study design and setting

A cross sectional interview of 467 randomly selected parents of children under the age of 5 was conducted between February 1st, 2016, and February 1st, 2017, in the Hail region of Saudi Arabia using a pre-tested 18-item questionnaire. Hail is a cosmopolitan city of 600,000 residents with diverse socio-economic backgrounds and has one of the highest proportions of Saudis [25]. The research protocol was reviewed and ethical approval was granted by the Medication Safety Research Chair, King Saud University.

2.2. Data collection and analysis

The 18-item structured questionnaire consisted mostly of pre-formulated / close-ended questions but open-ended responses were also allowed especially in situations where standardized options did not adequately describe their views. The questionnaire was developed after an extensive review of relevant literature and includes three main domains. The first section focused on gender,

parents' ages, education, occupation, the number of children less than 5 years old and monthly income. The second section assessed parents' awareness of the benefits associated with and purpose of vaccination, along with parents' confidence in recommending vaccinations to others and sources of information about vaccination and immunization programs in Saudi Arabia. The third section focused on current practices in vaccination, including the vaccination status of their children, problems experienced in accessing vaccinations, hospital visits associated with adverse events following vaccination and views about religion and childhood vaccinations that are recommended for children up to 5 years according to the immunization program in Saudi Arabia. The questionnaire required an average of 20 min to complete. Prior to the interviews, the survey instrument was pre-tested with 10 parents to minimize ambiguity and to enhance clarity and simplicity, which resulted in minor modifications. In addition, the questionnaire was thoroughly revised by senior faculty members with extensive experience in survey research for face and content validity. The interviews were conducted by ten Doctor of Pharmacy (Pharm D) students in their senior years with the pre-tested 18-item questionnaire. The data collectors participated in a one day review of the data collection tool before the study commenced to standardize the interview format. Random selection of participants was done with simple ballot at specific public places with high traffic count of parents with children aged 0–5 years. These included immunization points in hospitals and primary health care centers, and schools located in the urban areas of Hail. Parents with Saudi nationality who were present at these selected sites during data collection and had at least one child aged 0–5 years were included. The process of sampling consisted of collection of clinic appointment cards for all participants who presented at the hospitals and primary health care centers during data collection. The school registration numbers for children were used in schools for the purpose of study selection. The clinic appointment card numbers/school registration numbers were extracted and pooled together in a container. Ten participants were randomly drawn from the pool during every data collection visit till the end of the study period. Informed consent was obtained after the aim of the study had been explained. The interviews took an average of 20 min and were conducted in plain Arabic. Data entry and coding were completed with Statistical Analysis Software (SAS 9.3) (SAS Institute Inc., Cary, NC, USA), and descriptive statistics were used to analyze the data. A chi-square test or Fisher's exact test was used to analyze the categorical data. All statistical tests were conducted with a 2-tailed alpha of 0.05.

3. Results

3.1. Parents' demographic characteristics

Of the 467 parents invited to participate in the study, 453 responded and completed the interviews, for a response and completion rate of 97%. Based on the participants' demographic profiles, (54.5%, 247) were females, and (45.5%, 206) were males. A majority of the participants had received a formal education (94.1%, 427), were gainfully employed (62.9%, 285), and had access to a reasonable monthly income (83.3%, 378). (Table 1).

3.2. Parents' awareness of and practices regarding childhood immunization

Most participants (78.9%, 358) were aware of vaccination/immunization, vaccinated their children with the vaccines recommended for children up to 5 years of age (86.2%, 391) and encouraged other parents to vaccinate their children (89.9%, 408), (Fig. 1). No statistically significant differences in vaccine knowledge (p

Download English Version:

<https://daneshyari.com/en/article/8486287>

Download Persian Version:

<https://daneshyari.com/article/8486287>

[Daneshyari.com](https://daneshyari.com)