

Evaluation of Parents' Knowledge and Attitudes on Childhood Immunization in Almergeb Provence Libya.

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Abstract

Background: *Early childhood vaccination is one of the effective medical interventions which reduce morbidity and mortality in children and assure good health status of children in a society, despite that success of expanded program on immunization (EPI) many vaccine preventable diseases are remaining prevalent in developing countries*

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Aim of the work: The aim of present study is to assess and evaluate the parent's knowledge and attitudes on childhood immunization among parents in Almergeb Provence Libya.

Materials and Methods: A cross sectional survey was conducted during a three month and a structured questionnaire form including demographic data, parent's knowledge and attitudes on childhood immunization was used in a face to face interview. Data was processed using the software Statistical Package for Social Science (SPSS ve.14). Descriptive statistics were used to describe all variables

Results: Total parents (300) were surveyed, most have good knowledge in the rule of routine vaccination in protecting children from infectious diseases and its complications, (69.7%) knew that the first dose of vaccination is given at birth, (56%) knew that most diseases which children vaccinated against occur during the first year of life, (72.7%) knew that multiple doses of the same vaccine given at intervals, (54.3%) agree with that more than one vaccine at the same time have no negative impact on child immunity, (56%) agree with the importance of giving delayed vaccines, vaccination against seasonal influenza is accepted by (60.3%). A significantly associated observed with parent's knowledge and attitudes towards immunization with the increase in educational level of parents.

Conclusion: Education and socio-economic status of parents significantly influences the immunization coverage. However, educational campaigns and interventions are needed to upgrade parent's knowledge and to ensure the population receives the right information from credible sources on the importance and benefits of vaccination.

Keyword: vaccination, Parents'knowledge, immunization

المخلص:

تقييم المستوى العلمي والاجتماعي للوالدين وتأثيره تجاه تحصين الاطفال بمنطقة

المرقب بلبيبا

الاهداف: التطعيم في مراحل الطفولة المبكرة هو أحد التدخلات الطبية الفعالة التي تقلل من معدلات الإصابة بالامراض ومن معدل الوفيات عند الأطفال وتضمن حالة صحية جيدة لهم ، وعلى الرغم من برامج التحصين الموسع للعديد من الأمراض التي يمكن الوقاية منها باللقاحات لا تزال هناك العديد من هذه الامراض منتشرة في مجتمعات البلدان النامية. وتهدف هذه الدراسة علي تقييم مستوي الوالدين العلمي علي مواقفهما تجاه تحصين الأطفال

الطريقة: تم إجراء هذه الدراسة من خلال المسح المقطعي خلال ثلاثة أشهر وتم استخدام نموذج استبيان شمل البيانات الديموغرافية والمستوي التعليمي للوالدين وموقفهما حول تحصين الأطفال وتم ذلك في مقابلة وجهاً لوجه. وتمت معالجة البيانات باستخدام الحزمة الإحصائية البرمجية

النتائج: شمل المسح (300) حالة في منطقة المرقب/ ليبيا ، وظهرت النتائج ان نسبة (69.7%) على علم أن الجرعة الأولى من التطعيم تعطى عند الولادة ، وان نسبة (56%) لديهم علم أن معظم الأمراض التي يتم تطعيم الأطفال ضدها تحدث خلال السنة الأولى من العمر ، وان نسبة (72.7%) لديهم علم أن الجرعات المتعددة من نفس اللقاح تعطى على فترات ، وان نسبة (54.3%) يتفقون مع أن اعطاء أكثر من لقاح في نفس الوقت ليس له تأثير سلبي على مناعة الطفل وان نسبة (56%) يوافقون على أهمية إعطاء التطعيمات المتأخرة وان التطعيم ضد الأنفلونزا الموسمية من قبل بنسبة (60.3%). كما لوحظ ارتباطاً ذو دلالة احصائية بمواقف الوالدين تجاه التحصين مع زيادة المستوى التعليمي للوالدين.

الخلاصة: وتم استخلاص ان مستوى التعليم والوضع الاجتماعي والاقتصادي للوالدين يؤثر بشكل كبير على زيادة الاقبال علي تحصين الاطفال. ومع ذلك ، هناك حاجة إلى حملات التوعية والبرامج التثقيفية للرفع من مستوى المعرفة وضمان حصول السكان على المعلومات الصحيحة من مصادر موثوقة حول أهمية وفوائد التطعيم.

Introduction

Early childhood vaccination is an essential public health practice, carried out in every country in the world and saving from two to three million lives every year [1]. Nevertheless, over 19 million children per year do not receive all the recommended basic vaccines [2], and according to WHO over 1.5 million children die from vaccine preventable diseases globally [3].

Childhood immunization is one of the effective medical interventions which reduce morbidity and mortality in children and assure good health status of children in society [4], and the development and innovations in vaccination are one of the greatest achievements during the past two centuries. Despite that success of expanded program on immunization, many vaccine preventable diseases are remaining prevalent in developing countries [5, 6]. Successful vaccination programs rely on people having appropriate information, and sufficient knowledge, awareness, and acceptance of vaccination to make the decision to participate [7]. Interventions to inform or educate may not necessarily be sufficient to change behavior in all cases, but this does not negate their importance [8]. Face-to-face information or education can be delivered by a range of individuals, but it is particularly relevant in the context of the healthcare encounter. Healthcare providers (e.g. doctors, nurses, community health workers, Indigenous health workers) are the primary source of information for parents about routine childhood vaccination [9]. Parents trust the recommendations of their providers over other sources of information (media, volunteers) about vaccination, and communication that is respectful and builds trust can help hesitant parents work through their concerns [10, 11].

This study was undertaken to assess and evaluate the parent's knowledge and attitudes on childhood immunization among Libyan parents in Al-khoms.

Methods: A cross sectional survey was conducted during the period of three month from April (2016). Data collected from parents with children of 0 -12 years old attending Al-khoms immunization centers and pediatric outpatient of Al-khoms educational hospital. After explaining the purpose and details, those who agree to participate were interviewed face to face and a structured questionnaire form including demographic data, parent's knowledge and attitudes on childhood immunization was used.

The questionnaire constructed form for parents' demographics (table1), and form for knowledge & attitudes on childhood immunization (table2).

Data was processed using the Statistical Package for Social Science (SPSS ver.14) software. Descriptive statistics were used to describe all variables. Association between dependent variables (knowledge, and attitudes) and independent ones (parents' demographics) were tested using Chi-square test. P values of < 0.05 were considered statistically significant.

Results: Parents' demographics table (3): Overall 300 parents were surveyed, (70%) of them were females, parent age group of 18-29 years in (44%), (42%) were town resident and (48%) of parents have an university degrees.

Parents' knowledge on childhood immunization: table (4)

About two thirds of parents (66%) knew the rule of routine vaccination in protecting children from infectious diseases and its complications, and more than two thirds (69.7%) knew that the first dose

of vaccination is given at birth, About (56%) knew that most diseases against which children are vaccinated occur during the first year of life, and (72.7%) of parent knew that multiple doses of the same vaccine given at intervals. More than half (54.3%) agree with that more than one vaccine at the same time have no negative impact on child immunity, (35.3%) agree with the importance of vaccination campaigns. Vaccination against seasonal influenza is accepted by (60.3%) and only (19.3%) denied the relation of immunization to autism, and (38%) agree that common colds ear infection and diarrhea considered as a contraindication to vaccination, more than half (56%) agree with the importance of giving delayed vaccines.

Parent's attitude towards childhood immunization table (5) and figure (1): shows significant agreement (by any degree) to immunization is, important, safe, more beneficial than harmful, keep the child healthy and not prohibited in religion. On the other hand unvaccinated individuals are, at higher risk of infection, adverse health outcomes and have a negative impact on society.

Table (1): showing the questionnaire constructed form for parents' demographics.

Q	Item
1	Routine vaccination prevent children from some infectious diseases complications
2	First dose in vaccination given at birth
3	Most diseases against which children are vaccinated occur during the first year
4	Multiple doses of the same vaccine given at intervals
5	More than one vaccine at the same time have no negative impact on child immunity
6	It is important to vaccinate children during vaccination campaigns

7	It is recommended to vaccinate children against seasonal influenza
8	Immunization can cause autism
9	Common colds, ear infection and diarrhea are not contraindications to vaccination
10	Giving delayed vaccines is possible and important

Table (2): showing the questionnaire constructed form for the knowledge & attitudes on childhood immunization.

Q	Item
1	Child immunization is important
2	Immunization is more beneficial than harmful
3	Vaccines are safe
4	Child immunization is prohibited in religion
5	Immunization associated with side effects
6	Child can become infected after immunization with the disease/s vaccinated against
7	Compliance to immunization schedule is important
8	Immunization keep your child healthy
9	Some diseases were eradicated by giving vaccines
10	By vaccination there is intention to eradicate other diseases
11	Not getting vaccinated has a negative impact on society

Table (3): showing distribution of parents attending the surveillance according to age, sex, residence, number of children and educational level.

		No.	%
Age	18-29	132	44%
	30-39	115	38.3%
	Above 40	53	17.7%
Sex	Female	210	70%
	Male	90	30%
Residence	Town	126	42%
	Rural	174	58%
	One	70	23.3%

<i>No. of children</i>	2-3	111	37%
	>3	119	39.7%
<i>Educational level</i>	Illiterate	12	4%
	Primary	32	10.7%
	Secondary	112	37.3%
	University	144	48%

Table (4): showing knowledge on childhood immunization questionnaire (tab.1) correlated to parent's demographics

Q. No.	Don't know (611)	No (806)	Yes (1583)	
1	28	74	198	66%
2	33	58	209	69.7%
3	53	79	168	56%
4	46	36	218	72.7%
5	87	50	163	54.3%
6	98	96	106	35.3%
7	24	95	181	60.3%
8	94	148	58	19.3%
9	89	97	114	38%
10	59	73	168	56%
<i>Mean ±SEM</i>	<i>61.1±9.1</i>	<i>80.6±9.89</i>	<i>158.3±16.05</i>	
<i>P</i>		<i>NS</i>	<i>0.003*</i>	

Values are represented as mean ± SEM. (% for Yes)

The number of observations is given in parentheses.

*: Significance of differences from (**Don't know**) calculated by Student's t-test for paired data at $P \leq 0.05$.

Table (5): showing association between attitudes on childhood immunization and parent’s educational level

Education level		Strong disagree	Disagree	Not sure	Agree	Strong agree
Illiterate(7)	Mean ±SEM	0.1±0.1	0.2±0.13	1.5±0.62	2.5±0.31	2.7±0.36
Primary(20)	Mean ±SEM	1.82±0.85	2.64±0.94	2.91±1	***5.46±0.9	*7.18±1.74
Secondary (113)	Mean ±SEM	5.91±3.27	12.36±5.18	**18.82±4.51	***30.27±3.34	***46.1±8.1
University(160)	Mean ±SEM	8.45±5.45	13.55±6.23	**23.64±6.69	***39.73±5.65	***74.64±13.73

Values are represented as mean ± SEM.

The number of observations is given in parentheses.

*: Significance of differences from (strong disagree) value of the same educational level calculated by Student’s t-test for paired data at P≤0.05.

** : Significance of differences from the same value of illiterate educational level calculated by LSD at P≤0.05.

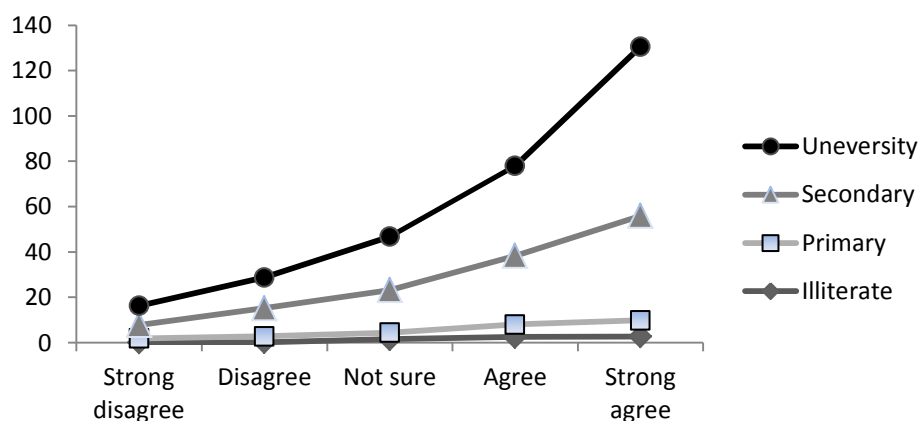


Figure (1): showing the relationship between parent’s education degree and attitudes towards childhood immunization.

Discussion: The results of the present survey showed that parents had good knowledge and positive attitudes on some aspects related childhood immunization, there is no significant variations between mothers and fathers in knowledge, also no significant differences in

knowledge among those living in the town or outside the town that may be because the majority of them were highly educated and the sources of credible information is easily accessed as they obtain vaccine information from health workers, media and society,

Shortage of supply or irregular supply could be one of the factors associated with adherence to vaccination, and parents explained delay or abstinence in their children immunization was due to irregularity and unavailability of vaccines at proper time, also hesitancy to vaccinate due to its side effects has always been an issue affecting the parent's attitude towards vaccination. As the administration of vaccines may be associated with common local reactions like pain, swelling, and redness at the injection site [12], more over systemic reactions, including fever, irritability, drowsiness, and rash, may also occur. And most vaccines in the childhood immunization schedule require two or more doses for development of an adequate and persisting antibody response [13].

Generally the results of the present survey revealed a positive attitudes on childhood immunization and a significant association between parent's educational level and knowledge and attitudes on childhood immunization, as a higher educational level, have better chances to come across considerable knowledge about immunization in the media, these finding coincide with the results of other studies in different parts of the world [14, 15, 16, 17]. Also improvement in literacy would add to achieve a higher target of immunization among children.

Conclusions: The benefits of vaccination extend beyond prevention of specific diseases in individuals. Education and socio-economic status of parents significantly influences the immunization coverage,. However, educational interventions are needed to upgrade parents' knowledge with special emphasis on less educated and residents of rural areas.

Recommendations: Education campaigns to ensure the population receives the right information from credible sources on the importance and benefits of vaccination. More studies to be carried out in other areas of the country for better evaluation.

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