

Original Research Article

Knowledge, attitude and practice of fathers about childhood immunization: a tertiary care hospital based cross sectional study

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ABSTRACT

Background: Immunization is globally recognized as one of the most powerful, safe, and cost-effective for the prevention/control of some childhood diseases. Father's involvement is essential for the successful immunization of the child, as man is the head of the family and he takes responsibility for all decision's measures including health and financial issues. Fathers having good knowledge of RI are likely to encourage their children to assess immunization services. This study thus aimed at assessing the knowledge, attitude and practice of fathers, uptake of RI and its associated factors. To assess the knowledge, attitude and practice of fathers about childhood immunization.

Methods: After obtaining institutional ethical clearance we interviewed 110 fathers who have children within the age group 9 months to 2 years who attended the pediatric OP and their knowledge, attitude and practice about immunization was analyzed.

Results: Out of 110 fathers interviewed majority come from joint family (91.8%) and had secondary education only (42.7%). Majority were skilled workers (65.5%). Only 0.9% had child death in their family and only 2.7% had a history of vaccine preventable disease in their family. Only 10.9% had good knowledge, 99.09% had good attitude and only 32.7% had good practice.

Conclusions: It was found that majority of fathers had poor knowledge and practice about childhood immunization. More awareness programs have to be done in order to improve the routine immunization.

Keywords: Fathers, Immunization, Knowledge, Attitude, Practice

INTRODUCTION

Immunization is globally recognized as one of the most powerful, safe, and cost-effective measures for the prevention/control of some childhood diseases.¹⁻⁴ Every year, vaccination averts an estimated 2-3 million deaths from diphtheria, tetanus, pertussis, and measles, all life-threatening diseases that disproportionately affect children, approximately 17% of deaths in children under-fives being vaccine preventable.⁴ United nations general assembly special session set a goal for full immunization of children less than one year old at minimum coverage of 90% nationally and 80% in every district or equivalent administrative unit by 2010.⁵ Despite this, global vaccine coverage has stalled over the past few years. Some

studies have identified deficit human resources, poor health worker attitude, poor community participation, and mothers knowledge and attitude toward RI as some of the reasons for low RI coverage.^{6,7} Factors such as caregiver's knowledge, attitude, and practices are also known to contribute to success or failure of the immunization.² Studies have assessed the knowledge and attitude of mothers on immunization, however, few studies have assessed that of men.^{6,8-10} Some studies have also found fathers involvement is essential for the successful immunization of the child.^{8,11} Father's involvement is essential for the successful immunization of the child, as man is the head of the family and he takes responsibility for all decisions including health and financial issues.¹¹ Fathers having good knowledge of RI are likely to

encourage their children to assess immunization services. This study thus aimed at assessing the knowledge, attitude and practice of fathers, uptake of RI and its associated factors. The result of this study will provide data on the level of knowledge and acceptance of RI among men, which can subsequently be used by policymakers for the improvement of acceptance of RI services.¹²

METHODS

This was a cross sectional study. The study was conducted from July to August 2019. The study was done on fathers of children of age 2 years or below attending pediatric out-patient Department of Amala Institute of Medical Sciences, Thrissur.

The Sample size was calculated using the formula $4pq/d^2$. $n=4pq/d^2$, $p=47.5\%$, $q=1-p$, $d=20\%$ of p , $n=106$ (rounded to 110).

A study done in Nigeria about the knowledge of fathers about routine immunization showed 47.5% fathers responded correctly.¹²

After obtaining institutional ethics committee clearance 110 fathers who have children within the age group 9

months to 2 years who attend the paediatric OPD and who gave consent were included and interviewed. The purpose of the study was explained in detail to all the fathers. They were assured of anonymity and confidentiality was strictly maintained during all stages of the study.

Data was collected by structured interviewer-administered questionnaire. Data was entered using MS excel. Statistical analysis was done using SPSS version 23.

RESULTS

Out of 110 fathers interviewed, majority were of the age group 31-35 (43.6%). Majority of them were skilled workers (65.5%). and only had secondary education (42.7%). Majority of the fathers were pink ration card holders (35.5%) and had only one child (55.5%). A small proportion of them had child deaths in their families (0.9%) and had a history of vaccine preventable disease in their family (2.7%).

Out of the subjects with good knowledge the majority (41.6%) was educated up to professional/post-graduate level and among those with poor knowledge the majority (46.9%) had only secondary education (Table 1).

Table 1: Association between education and knowledge of male parents.

Educational status	Knowledge category		Total (%)	Fisher's exact p value
	Poor (%)	Good (%)		
Primary	1 (100)	0 (0)	1 (100)	0.004 (p<0.05)
Secondary	46 (97.8)	1 (2.1)	47 (100)	
High secondary	20 (90.9)	2 (9.0)	22 (100)	
College	26 (86.6)	4 (13.3)	30 (100)	
Professional/post-graduate	5 (50)	5 (50)	10 (100)	
Total	98	12	110	

Table 2: Association of occupational status and knowledge of male parents.

Occupational status	Knowledge category		Total (%)	Fisher's exact p value
	Poor (%)	Good (%)		
Professional	9 (50)	9 (50)	18 (100)	0.0001 (p<0.05)
Clerk	19 (100)	0 (0)	19 (100)	
Teacher	19 (100)	0 (0)	1 (100)	
Skilled/unskilled worker	69 (95.8)	3 (4.1)	72 (100)	
Total	98	12	110	

Table 3: Association of socio-economic status and knowledge of male parents.

Socio-economic status	Knowledge category		Total (%)	Fisher's exact p value
	Poor (%)	Good (%)		
No ration card	2 (66.6)	1 (33.3)	3 (100)	0.041 (p<0.05)
Yellow	11 (100)	0 (0)	11 (100)	
Pink	37 (94.8)	2 (5.1)	39 (100)	
Blue	32 (91.4)	3 (8.5)	35 (100)	
White	16 (72.7)	6 (27.2)	22 (100)	
Total	98	12	110	

Table 4: Association between education and practice of male parents.

Educational status	Practical category		Total (%)	Fisher's exact p value
	Poor (%)	Good (%)		
Primary	1 (100)	0 (0)	1 (100)	0.043 (p<0.05)
Secondary	38 (80.8)	9 (19.1)	47 (100)	
Higher secondary	14 (63.6)	8 (27.2)	22 (100)	
College	17 (56.6)	13 (43.3)	30 (100)	
Professional	4 (40)	6 (60)	10 (100)	
Total	74	36	110	

Table 5: Association between occupational status and practice of male parents.

Occupational status	Practical category		Total (%)	Fisher's exact p value
	Poor (%)	Good (%)		
Professional	7 (38.8)	11 (61.1)	18 (100)	0.018 (p<0.05)
Clerk	14 (73.6)	5 (26.3)	19 (100)	
Teacher	0 (0)	1 (100)	1 (100)	
Skilled/unskilled worker	53 (73.6)	19 (26.3)	72 (100)	
Total	74	36	110	

Out of the subjects with good knowledge the majority (75%) was working as professionals and among those with poor knowledge the majority (70.4%) was skilled/unskilled workers (Table 2).

Out of the subjects with good knowledge the majority (50%) was white ration card holders and among those with poor knowledge the majority (37.7%) was pink ration card holders (Table 3). Out of the 110 subjects 98 (89%) were found to have poor knowledge and only 12 (11%) were found to have good knowledge about the child's immunization. Out of the subjects with good attitude the majority (43.1%) were educated up to secondary level. Out of the 110 subjects 109 (99.1%) were found to have good attitude and only 1 subject (0.9%) was found to have poor attitude about the child's immunization.

Out of the subjects with good practice the majority (36.1%) was educated up to college level and among those with poor practice the majority (51.3%) had only secondary education (Table 4). Out of the subjects with poor knowledge the majority (71.6%) were skilled/unskilled workers (Table 5).

DISCUSSION

A total of 110 fathers were part of this study. 42.7% of them had only secondary education and 65.5% of them were Skilled Workers. Out of the 110 subjects only 10.9% had good knowledge and only 32.7% had good practices but 99.1% of them had good attitude regarding their child's immunization.

A study conducted by Raji et al in 2019 among the male heads of households residing in a rural community of Sokoto state of north west Nigeria showed that only 9.7% of the subjects had good knowledge and 78.3% of them

good attitude and 43.1% of them had good practice regarding their child's immunization. The present study had a slightly higher prevalence for good knowledge and good attitude among fathers. This is possibly due to the urban setting of the present study. The present study had lesser prevalence for good practices. This is probably due to the fact that majority of the fathers were working.

In a similar study conducted by Baguma, et al in 2016 among fathers aged 18 and above showed that 87% of the subjects had good attitude and only 29% of them had good practice regarding their child's immunization.¹³ The present study had a slightly higher prevalence for both good attitude and good practices. This is probably due to the urban setting of the present study.

CONCLUSION

It can be concluded that knowledge of male parents shows association with socio-economic status (p=0.041), occupational status (p=0.0001) and educational status (p value=0.004). Practice of male parents also shows an association to educational status (p=0.043) and occupational status (p=0.018). Other factors analyzed were gender of children and type of family and none of them showed any association.

Recommendations

Parents, fathers, in particular should be educated on the schedule of RI and the need to ensure children receive all vaccines as and when due. Interventions to improve men's attitude such as health education or peer education are needed to increase their involvement. These interventions need to be centered on the involvement of both parents in the health care of the family. Younger fathers and men with occupations that keep them away from home could be the primary target of these interventions.

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REFERENCES

1. Angadi MM, Jose AP, Udgiri R, Masali KA, Sorganvi V. A study of knowledge, attitude and practices on immunization of children in urban slums of Bijapur city, Karnataka, India. *J Clin Diagn Res*. 2013;7:2803-6.
2. Qidwai W, Ali SS, Ayub S, Ayub S. Knowledge, attitude and practice regarding immunization among family practice patients. *J Dow Univ Health Sci*. 2007;1:15-9.
3. Oche MO, Umar AS, Ibrahim MT, Sabitu K. An assessment of the impact of health education on maternal knowledge and practice of childhood immunization in Kware, Sokoto state. *J Public Health Epidemiology*. 2011;3:440-7.
4. United Nations Children Fund (UNICEF) (Last accessed on 2018 Jul); Immunization Facts and Figures Nov 2015 Update 2015. Available from: <http://www.unicef.org>.
5. Adeleye OA, Mokogwu N. Determinants of full vaccination status in a rural community with accessible vaccination services in South-South Nigeria. *J Community Med Prim Health Care*. 2016;28:1-7.
6. Kapoor R, Vyas S. Awareness and knowledge of mothers of under five children regarding immunization in Ahmedabad. *Healthline*. 2010;1:12-5.
7. Tagbo BN, Eke CB, Omotowo BI, Onwuasigwe CN, Onyeka EB, Mildred UO. Vaccination coverage and its determinants in children aged 11-23 months in an urban district of Nigeria. *World J Vaccines*. 2014;4:175-83.
8. Mapatano MA, Kayembe K, Piripiri L. Immunization-related knowledge, attitudes and practices of mothers in Kinshasa, Democratic Republic of the Congo. *South African Family Practice*. 2008;50:60-6.
9. Odusanya OO, Alufohai EF, Meurice FP, Ahonkhai VI. Determinants of vaccination coverage in rural Nigeria. *BMC Public Health*. 2008;8:381.
10. Abidoye AO, Odeyemi KA. Knowledge, attitude and practice of mothers to childhood immunization in Kosofe local government area of Lagos state Nigeria. *Int J Basic App Innov Res*. 2013;2:66-72.
11. Agboola SM, Busari OA, Agboola SBT, Olajide TJ, Shabi OM, Elegbede OT. Knowledge, attitude, perceptions of adult males towards childhood immunizations in Southwest Nigeria. *Am J Health Res*. 2015;3:8-12.
12. Raji MO, Sani AA, Ibrahim LS, Muhammad H, Oladigbolu RA, Kaoje AU. Assessment of the Knowledge of Fathers, Uptake of Routine Immunization, and Its Associated Factors in a Rural Community of North West Nigeria. *Annals of African medicine*. 2019;2:97-102.
13. Baguma C, Babirye JN, Oryema P, Wasswa P, Atuyambe L. Reasons for the Low Male Involvement in Routine Child Immunization in Hoima District Uganda using the Attitude, Social Influence and Self Efficacy Model. *J of Immunization*. 2016;1(1):9-21.

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