

ORIGINAL ARTICLE

Children's Immunization Status and Family Size of Doctor's Families in Dr. Pirngadi Hospital Medan

by

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Abstract

A study of children's immunization status and family size of doctor's families in Dr. Pirngadi Hospital, Medan, Indonesia had been conducted on December 1982.

The study was done by distributing questionnaires to 105 doctors.

From this study we found 247 children consisting of 19 children under 1 year of age and 228 over 1 year. Basic immunization had been done in 177 children (71,66%). Most of them had been vaccinated against Tuberculosis (95,95%), but only 2 children had been vaccinated against Measles (0,81%). The doctors who had 2 children were 30,47% and mean of total wanted children was 3,30.

Awareness of immunization besides BCG and family planning should be increased among the doctors in Dr. Pirngadi Hospital.

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Introduction

About 5 million children in the developing countries die each year from diphtheria, measles, pertussis, poliomyelitis, tetanus and tuberculosis; and an estimated 80 million children, born in these countries each year, require but do not receive protection from these diseases of which all can actually be prevented by immunization (Atangana's and Guyer, 1977).

In the industrialized countries immunization programmes have produced very good results in the course of the past 20 years: tetanus, diphtheria and poliomyelitis have been practically eliminated, while pertussis, measles, the miliary and meningeal forms of tuberculosis have been effectively controlled (Tomaszunas, 1979).

The population of Indonesia consists of 40% children (age 0 - 15 years) and 80% of the total population live in the rural areas.

The mortality are for the age group of 0-1 year is 80 ‰ - 100 ‰ and for the age group of 1-5 years is 45 ‰ in the developing countries. This is respectively 55 and 46 times greater than those found in the developed countries. Data concerning

Materials and Methods

This study was done during the month of December 1982 which was retrospective (by using purposive sampling) in character using questionnaires to be filled in by the 105 doctors who work at the Dr. Pirngadi Hospital Medan.

the morbidity and mortality rates in Indonesia are still incomplete (Maneroeng, 1975).

From the facts mentioned, it can not be argued that in Indonesia immunization program to avoid diseases and achieve a higher health standard plays an important role, especially when viewed from the standpoint of population as in fact for a greater part consists of children.

Developing countries, including Indonesia are struggling to improve the socio-economic life of their people through various efforts and one of those is the control of the growth of their population by family planning program (Suwardjono Surjaningrat, 1981).

However, before we take more measures for the general population, it is reasonable that we as doctors who promote health care and services, should be an example for the population in participating with the programs of family planning and immunizations in the families.

This report is a preliminary study assessing how far family planning and immunization programs were done by the doctors themselves.

The inquiries consisted of the age of marriage, number of wanted children in the family, the number and age of children at the time this study was done, facilities used during child birth and children's immunization status.

Results

From these 105 doctors' families we recorded that the youngest age of marriage was 20 years and the eldest 42 years for men, with a mean of 30.2 years (SD ± 0.65). For the women the youngest age for marriage was 20 years and the eldest 35 years with a mean of 24.74 years and a standard deviation of ± 0.62 (Table 1).

The total number of children in this study was 247. The mean number of children in one family at the time of this study was 2.35 (2-3) and 30.47% had 2 children (Table 2). The mean number of wanted children was 3.30 (3-4) and 38.09% wanted 4 children (Table 3).

Among the 247 children, 19 were younger than 1 year and 228 were older than 1 year and amongst them 177 children (71.66%) had received complete basic immunization (Table 4).

The major type of immunization administered was BCG which was received by 237 children (95.95%), followed by DPT and

Polio which was received by 198 children (80.16%). DPT II was administered on 183 children (74.09%) and Polio II was administered on 190 children (76.92%) (Table 5). Only 2 children (0.81%) received immunization against Measles.

Among the 19 children with the age group younger than 1 year, 5 were younger than 3 months. Complete immunization was found in the other 14 children (73.68%). From the 228 children who were older than 1 year complete basic immunization was found in 163 children (71.49%).

The reasons given for the incomplete immunization were busyness, forgetfulness, child will develops fever and vaccine is not available (Table 6).

The majority of doctor's children were born in hospitals, numbering 226 children (91.49%). Two children (0.80%) were born at Community Health Centres (Puskesmas). One child (0.40%) was born in the midwife's house and 17 children (6.88%) were born at home, while one child (0.40%) aboard a ship (Table 7).

Discussion

The mean age for marriage was 30.2 years in males which is caused by the long time consumed for medical training and that the doctors mostly married after their graduation, although marriage during educational training in Indonesia is not prohibited. In females the mean age for marriage was 24.74 years, younger than the males, they married after they have graduated from Senior High School or during their Academic Education.

In order to build a small family by family planning program, it is suggested to have children when the mothers are 20 - 30 years of age (Utami Munandar 1983).

The average number of children in a doctor's family when this study was executed ranged between 2 and 3 although the number of children wanted was between 3 and 4. This is caused by the fact that the doctors have participated with the

TABLE 1 : *Marital Age*

Age (years)	Sex			
	Males	%	Females	%
20 - 24	3	2.85	64	60.95
25 - 29	47	44.76	36	34.28
26 - 34	51	48.57	4	3.80
35 - 39	3	2.85	1	0.95
40	1	0.95	—	—
Total	105	100	105	100
	\bar{X} 30.2	\bar{X} 24.74		
	SD \pm 0.65	SD \pm 0.62		

TABLE 2 : *Number of Children in a Family*

Children	Sample	%	Total
0	14	13.33	0
1	10	9.52	10
2	32	30.47	64
3	30	28.57	90
4	13	12.38	52
5	5	4.76	25
6	1	0.95	6
Total	105	100	247

 \bar{X} 2.35TABLE 3 : *Number of Children wanted in a Family*

Children	Sample	%
1	0	0
2	29	27.61
3	27	25.71
4	40	38.09
5	7	6.66
6	2	1.90
Total	105	100
	\bar{X} 3.30	

TABLE 4 : *Children's Immunization State*

Number of Children	Basic Immunization			
	Complete	%	Incomplete	%
247	177	71.66	70	28.34

TABLE 5 : *Immunization State in Detail*

Type of Immunization	Sample	Immunization			
		Received	%	Not Received	%
BCG	247	237	95.95	10	4.05
DPT I	242	198	80.16	44	19.94
DPT II	198	183	74.09	15	25.91
Polio I	242	198	80.16	44	19.84
Polio II	198	190	76.92	8	23.08

TABLE 6. : *Reasons for Incomplete Immunization*

Number of Children	Type of Immunization	Reasons				Total
		Too Busy	Forget-Fulness	Fever	Not Available	
70	BCG	6	4	—	—	10
	DPT I	28	10	4	2	44
	DPT II	9	5	1	—	15
	Polio I	24	15	—	4	44
	Polio II	5	3	—	—	8

TABLE 7. : *Place of Delivery*

Place of Delivery	Sample	%
Hospital	226	91.49
at Home	17	6.83
Community Health Centre	2	0.80
Midwife's House	1	0.40
Miscellaneous	1	0.40

family planning program, while on the other hand they are still in their fertile state and have the opportunity to get more children. The limitations on the number of children which is imposed by the Government allowing its employees to have only 3 children had also a great influence. The existence of doctor's families with 4 children or more might be as consequence that during that time family planning program was not yet widely accepted and caused by the cultural customs which demanding that they should have a male child.

According to National census on population in 1980, mean of family member in general is 4.8 so called "medium size"; up

to 3 children in a family is called "small size" and family with more than 5 children is a big size family (Utami Munandar, 1983).

Among the 247 children in this study, 71,66% had received complete basic immunization for their families.

Busy work and forgetfulness were the main factors that caused incomplete immunization. BCG immunization has covered 95.95% of the children because doctor's children were born in hospitals where BCG immunization was administered a few days after birth. Immunization against Measles had covered just only two children.

Until now only BCG, DPT and Polio vaccination had been done as routine procedure on immunization in the hospitals (Lubis, 1980).

Although incidence of measles in some areas have become problems, but due to difficulties in cold chain system and expensive in price, it is impossible to put it in a routine programme in a short time in Indonesia (Sudaryat Suraatmaja, 1979).

Conclusion

The doctors working at the Dr. Pirngadi Hospital Medan should do more to promote the immunization and Family Planning Program in their own families.

Immunization against Measles is still not a routine immunization procedure in Dr. Pirngadi Hospital Medan because of the expensive price.

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