

KNOWLEDGE AND PERCEPTION REGARDING PNEUMONIA IN CHILDREN UNDER FIVE AMONG PARENTS AT PAEDIATRIC CLINIC IN GOVERNMENT HOSPITAL, SELANGOR

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Background of study: In Malaysia, pneumonia had contributed to 6% of child death in 2010. Parents' who have poor knowledge and perception toward childhood pneumonia will have a tendency to delay treatment seeking behaviour.

Methods: A cross-sectional design with convenient sampling method was used in this study. The data were collected from March until April 2017 from 199 parents that brought their children for medical examination at the Paediatric Clinic. The data were collected using self-administered questionnaires. All data obtained were analysed using the Statistical Analysis Package for Social Sciences (SPSS) version 20 where descriptive analysis and chi-square test were used to present the results of the study.

Results: The findings in this study showed that only 19.1% of the respondents have good knowledge while 55.3% have good perception regarding pneumonia in children under five. The findings indicated a significant relationship between the level of knowledge with family income, working sector, and number of children. A significant relationship was also found between the levels of perception with the level of education.

Conclusion: The findings in this study can be used to guide the health care team in planning appropriate intervention in order to improve the level of knowledge and perception regarding childhood pneumonia among parents. It can help the health care personnel to focus on the aspects that are not well understood by parents.

Keywords: Knowledge, Perception, Pneumonia, Parents, Malaysia

BACKGROUND OF STUDY

Occurrences of childhood pneumonia have recently become a major concern of the world. Pneumonia had contributed 6% of Malaysia's child (birth-5 years old) death in 2010 (WHO, 2015). However, the percentage of death caused by pneumonia had decreased by 5% in 2015. Disregarding the decreased mortality rate from 2010 to 2015, the death rate caused by pneumonia is still at a worrying stage. Hence, serious attention is still needed to fight this disease. In that regard, parents' knowledge holds a great influence on preventing the disease in children. The parents' perception toward pneumonia will also affect their reaction toward the disease. Parents with good perception will have a higher tendency to take action in preventing the disease as compared to parents with poor perception. Therefore, this study aims to determine the level of knowledge and level of perception regarding pneumonia in children under five among parents at a paediatric clinic in a government hospital in Selangor.

MATERIALS AND METHODS

Study design, Study Populations: This was a cross-sectional study which was conducted at a paediatric clinic, in a government hospital in Selangor. The study population comprised of 199 parents. Data was collected between April to May 2017. Ethical approval was obtained from Malaysia Medical Research and Ethics Committee

Questionnaire: A self-administered questionnaire was used in this study. The questionnaire was adapted from previous research conducted by Siswanto, Bhuiyan, & Chompikol (2007). The questionnaire consisted of 45 questions that divided into 3 parts. Part 1 is for socio-demographic questionnaire; part 2 is for the parents' knowledge about pneumonia and part 3 is for the parents' perception about pneumonia.

Knowledge of pneumonia was measured through a series of statement questions with answer choices of “Yes”, “No” and “Not sure”. The score for each question was given as 1 for a correct answer (YES) and 0 for not sure or wrong answer (NO). Good knowledge was classified as having a total score of greater to or equal to 15.66; fair knowledge was classified as having a total score of 9.17 to 15.66 and poor knowledge was classified as having a total score of less than 9.17.

Perceptions of pneumonia were measured through a statement questions with answer choices of “Agree”, “Not agree” and “No opinion”. The score for each question was given as 3 for a correct answer (AGREE) and 2 for no opinion or wrong answer (NOT AGREE). A good percentage was classified as having a total score of greater than 47.32; fair perception was classified as having a total score of 44.66 to 47.32 and poor perception was classified as having a total score of less than 44.66.

Data analysis:Data was analysed using Statistical Package for Social Science (SPSS) version 20.0. The descriptive analysis was used; frequency and percentage to describe a socio-demographic characteristics, knowledge and perception of pneumonia. Chi-Square was used to analyse the association between the variables.

RESULTS

A total of 199 parents participated in this study with a response rate of 100%. This study involved parents between ages of 23 to 50 years old where the mean age is 34.06. Most of the family are considered as low-income family with the income for each month being less than RM3000 (40.2%). In terms of the level of education, most parents (36.2%) had studied until certificate level. Nearly half of the parents in this study work in the private sector (44.2%). The mean number of children for the parents that participate in this study is 2.59. The distribution of the parents’ socio-demographic characteristics shows in Table 1.

Table 1: The distribution of parents’ socio-demographic characteristics (n = 199)

Socio demographic	n	%
Age		
23-30	61	30.7
31-40	112	56.2
41-50	26	13.1
Family income		
More than RM5000	48	24.1
RM3000 – RM5000	71	35.7
Less than RM3000	80	40.2
Educational level		
Certificate	72	36.2
Diploma	57	28.6
Degree	54	27.1
Master	16	8.0
Occupation		
Not working	35	17.6
Private sector	88	44.2
Government sector	64	32.2
Self-employed	12	6.0
Number of children		
One	41	20.6
Two	62	31.2
Three	50	25.1
Four	32	16.1
Five	11	5.5
Six	3	1.5

The result has shown that more than half of the parents have fair knowledge regarding pneumonia in children under five (n = 121, 60.8%), 38 (20.1%) have poor knowledge while 40 (19.1 %) have good knowledge. In terms of parents' perception on pneumonia, the result has shown that more than half of the parents have good perception regarding pneumonia in children under five (n = 110, 55.3%), 64 (32.2%) have fair perception while 25 (12.6%) have poor perception.

Relationship between level of knowledge and the socio-demographic characteristics among parents: There is a significant relationship between the level of knowledge regarding pneumonia and family income ($\chi^2 = 9.990$; $p = 0.041$); working sector ($\chi^2 = 12.117$; $p = 0.017$); and number of children ($\chi^2 = 6.553$; $p = 0.038$). The distribution of relationship between the parents and the level of knowledge and the parents' socio-demographic characteristics among parents shows in Table 2.

Table 2: The distribution of relationship between level of knowledge on pneumonia in children under five and socio-demographic characteristics among parents

Variables	Level of knowledge			χ^2	p
	Good n (%)	Fair n (%)	Poor n (%)		
Age					
23 – 30	8(4.0)	39(19.6)	14(7.0)	2.145	0.342
31 - 50	30(15.1)	82(41.2)	26(13.1)		
Family income					
More than RM5000	12(6.0)	26(13.1)	10(5.0)	9.990	*0.041
RM3000 – RM5000	14(7.0)	50(25.1)	7(3.5)		
Less than RM3000	12(6.0)	45(22.6)	23(11.6)		
Level of education					
Certificate	10(5.0)	41(20.6)	21(10.6)	7.996	0.092
Diploma	10(5.0)	37(18.6)	10(5.0)		
Degree & Master	18(9.0)	43(21.6)	9(4.5)		
Working sector					
Not working & Self-employed	5(2.5)	29(14.6)	13(6.5)	12.117	*0.017
Private sector					
Government sector	15(7.5)	51(25.6)	22(11.1)		
	18(9.0)	41(20.6)	5(2.5)		
Number of children					
1 - 3				6.553	*0.038
4 - 6	25(12.6)	92(46.2)	36(18.1)		
	13(6.5)	29(14.6)	4(2.0)		

*significance at $p \leq 0.05$

Relationship between level of perception and the socio-demographic characteristics among parents: There is a significant relationship between the level of perception regarding pneumonia and level of education ($\chi^2 = 10.295$; $p = 0.036$). The distribution of relationship between the parents and their level of perception and the parents' socio-demographic characteristics among parents shows in Table 3.

Table 3: The distribution of relationship between level of perception on pneumonia in children under five and socio-demographic characteristics among parents

Variables	Level of perception			χ^2	p
	Good n (%)	Fair n (%)	Poor n (%)		
Age					
23 – 30	30(15.1)	22(11.1)	9(4.5)	1.345	0.511
31 - 50	80(40.2)	42(21.1)	16(8.0)		
Family income					
More than RM5000	28(14.1)	16(8.0)	4(2.0)	3.936	0.415
RM3000 – RM5000	43(21.6)	21(10.6)	7(3.5)		

Less than RM3000	39(19.6)	27(13.6)	14(7.0)		
Level of education					
Certificate	31(15.6)	26(13.1)	15(7.5)	10.295	*0.036
Diploma	34(17.1)	19(9.5)	4(2.0)		
Degree & Master	45(22.6)	19(9.5)	6(3.0)		
Working sector					
Not working & Self-employed	21(10.6)	18(9.0)	8(4.0)	5.705	0.222
Private sector	48(24.1)	27(13.6)	13(6.5)		
Government sector	41(20.6)	19(9.5)	4(2.0)		
Number of children					
1 - 3	81(40.7)	50(25.1)	22(11.1)	2.446	0.294
4 - 6	29(14.6)	14(7.0)	3(1.5)		

*significance at $p \leq 0.05$

DISCUSSION

In the current study, 60.8% of the parents achieved a fair level of knowledge. The result of the current study is almost identical to the study conducted by Siswanto, Bhuiyan, & Chompikol (2007) in Thailand, where more than half (66.0%) of the mothers had a fair level of knowledge. The same goes for the study conducted by Pradhan, Rao, Pattanshetty & Nilima (2016) in India, where most (41.3%) of the mothers have a fair level of knowledge. In contrast, in the study conducted by Abusaad & Hashem (2014) in Saudi Arabia, most (75.0%) of the parents had a good level of knowledge. Thus, in comparison to these three studies, there are two studies that exhibit the same result as the current study, where the fair level of knowledge has the highest percentage among the three levels of knowledge. Results have shown that parents recognise chest pain as a sign of pneumonia although it is not. Parents were not aware that poor kitchen ventilation will increase the risk of getting pneumonia. Besides, the parents' decision to bathe their children with high fever using cold water was also not a correct action. Lastly, parents do not realise that they need to isolate healthy children from sick children in a different room to prevent the transmission of pneumonia.

For the level of perception, the highest percentage within the three levels is 55.3% for a good level of perception. In the study conducted in Thailand, the highest percentage (81.0%) is also a good level of knowledge (Siswanto, Bhuiyan, & Chompikol, 2007). Abusaad & Hashem (2014) found the highest percentage (64.3%) in their study to be a fair level of perception. The result from the study by Pradhan, Rao, Pattanshetty & Nilima (2016) also had a fair level of perception as the highest (41.5%) level of perception. The parents' perception toward their children's susceptibility to the disease due to overcrowded room is still low. Besides, parents think that giving formula milk instead of breast milk would not have any effects on their children's health. Parents also had no idea that chest indrawing indicates severe pneumonia.

The result showed that there were three significant associations between the level of knowledge and socio-demographic characteristics among parents. These were family income, working sector and number of children. Memon, Shaikh, Pandhiani, & Usman (2013) also found similar results with the current study. Non-working mothers have limited access to health information as they rarely leave their house (Memon, Shaikh, Pandhiani, & Usman, 2013). According to Abusaad & Hashem (2014), the finding showed a significant relationship between the level of knowledge and number of children. This is supported by the study conducted by Memon, Shaikh, Pandhiani, & Usman (2013) with similar results. It can be summarised that family income which is indirectly related to working sector does affect the level of knowledge regarding pneumonia, and this is due to the difference in working field. The number of children also may affect the parents' level of knowledge as informal lessons regarding pneumonia take place through experience.

The result showed a significant relationship between the level of perception and level of education. This finding is similar to the study conducted by Pradhan, Rao, Pattanshetty, & Nilima (2016) in India. Another study by Abusaad & Hashem (2014) in Saudi Arabia & Memon, Shaikh, Pandhiani & Usman (2013) in Pakistan also supported the finding of the current study. The level of education can be directly related to health literacy. Low educational level can lead to low health literacy which will prevent individuals from fully engaging in society and achieving their life goals (Kickbusch, Wait, & Maag, 2005). Sihota & Lennard (2004) reported that one in five

people in the United Kingdom had difficulty in understanding simple health information, which will eventually lead to a poor health outcome.

CONCLUSION

The findings of this study identified the variation of the level of knowledge and perception toward childhood pneumonia. Most of the parents were found have a fair level of knowledge regarding pneumonia. However, in term of perception, most of the parents were found to have a good perception. Family income, working sector, and number of children were found have a significant relationship with the level of knowledge. While the level of education was found to exhibit a significant relationship with the level of perception.

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