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## Study of the relationship between the effect of health education and the educational degree of parents in children with respiratory tract infection

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### ABSTRACT

Through the change of hospitalization frequency and loss rate of health education in children with respiratory tract infection, to explore the effect of health education and parents' education degree on children's health, the children aged 3-12 years were randomly divided into Group A, B and C, Corresponding educational degree of parents for middle school and below, secondary education, university. Both children and parents received the health education once ten days. The observation period was one year. Evaluation was the frequency and the health education of hospitalized children with respiratory tract infections year turnover. In the total of 1320 cases, 800 cases were Completed health education, as 360 cases in A group, 240 cases in B group and 200 cases in C group. From hospitalization frequency, Group A was close to the times of hospitalization 6-9 times / year, Group B was close to 3-6 times / year and Group C was close to <3 times / year. The loss of health education were 520 Cases: The loss rate was 41.94% in Group A, 25% in Group B and 47.37% in Group C. The statistical results shown significant differences between three groups as a lower loss rate in Group B than A and C, while Group C was the highest characteristics. Conclusion: Parents culture degree had influence on children's health education. Different health education on cultural degree of parents could have different results and different ways of education method. It was a reasonable solution to give them the health education on children's parents of secondary education once every ten days.

### KEYWORDS

Respiratory tract infection; Prevention; Children health education; Parents.



## INTRODUCTION

Respiratory tract infections (respiratory infection RI) was a most common pediatric diseases (Shen Xiaoming, 2005). In the survey of ten children of a common disease, the incidence of respiratory tract infection rate was 23.96%, ranking the first (Qiu Jianjin, 2004). Physiological and anatomical characteristics of pediatric respiratory tract and immunity was an important cause of recurrent upper respiratory infection. Indoor air pollution, heating imbalance and improper care was the main reason (Jia Wei, et al, 2001). Children with recurrent cold could lead to malnutrition, reduced lung function and even growth behind such direct or indirect consequences which could reduce their quality of life (Pan Tao, 2002). The treatment of RI with sufficient rest, the solution table, heat, prevent complications, and the importance of general nursing and support therapy (Huang Jingheng, 2001; Li Ping, et al, 2009; Ou Xin Ming, 2001). In the prevention, treatment and rehabilitation of RI process, the health education was very important (Jia Wei, et al, 2001; S. Sarahroodi et al., 2010; Abul Quasem et al., 2011). Because of health education age span, the contents was complicated. According to the characteristics, how to reduce complications, reduce medical fees and related costs, improve the quality of life of children and their parents, promote children's healthy and happy growth of purpose, had become the focus of health education. This paper study the changes of health education on parents with different education degree, to find a reasonable education scheme for children. The results were reported as follows:

## CLINICAL DATA

### Subjects investigated

All subjects who were selected aged 3-12 years old, all together 1320 cases, were the children with respiratory tract infection in our hospital from January, 2010 to January, 2012.

### Health education content

According to the following health education prescription on parents and their children who were related to respiratory tract infection: encourage children to drink more water to the respiratory mucosa moist, maintain indoor air fresh, pay attention to bedding light, so as not to cause discomfort and sweating; underwear should be relaxed, so as not to affect the respiratory, guide the parents to strengthen children's nutrition to develop good eating and health habits, establish a reasonable life system to form the habit of exercising, such as attending outdoor activities frequently to enhance physical fitness and improve respiratory function. Children should seldom go to crowded public places, do not spit everywhere, to avoid contact with respiratory infection patients as far as possible, teach parents how to handle the respiratory tract infection, so that children can receive timely control early in the disease. Parents should give their children regular health examination and vaccination on time.

## RESEARCH METHODS

### Inclusion criteria

Taken the eligible children's first hospitalized time for the observation starting point and carrying out health education. The observation period was 1 year.

### Grouping and observation method

Eligible children were randomly divided into Group A, B and C according to educational degree of parents for middle school and below, secondary education, university. Both children and parents and respectively received health education per ten days of infection for children and parents. Every group data was in Table 1.

**Table 1 : Groups of Distribution Table**

educatee	groups			Total
	A	B	C	
Both children and parents are educated	360	240	200	800

### Evaluation Index

Hospitalization frequency was Children's respiratory infection hospitalization times in a year. The loss of health education was the number of not timely education. Evaluation method: Establishing mathematical model for each group's related data, carrying out corresponding card analysis, test analysis and variance analysis respectively and analyze the results of each group synthetically.

## RUSULTS

The frequency of different education degree was in Table 2

**Table 2 : Hospitalization Frequency Table of Children**

The frequency of hospitalization	Number			
	A	B	C	TOTAL
<3	80	50	76	206
3~6	120	82	52	254
6~9	100	72	41	213
>9	60	36	31	127
TOTAL	360	240	200	800

There was significant difference between three groups of educational degree of parents associated with hospitalization frequency.

From the SPSS multiple correspondence analysis graph, Group A related closely to hospitalization frequency 6-9 times / year, Group B related closely to 3-6 times / year and Group C related to <3 times / year,

Comparing the loss rate by using the SPSS overall contingency table chi square test, it shown that the overall loss rate of the three groups were significantly different(P <0.01). Different loss rate of A, Band C group showed that the educational level of parents can affect the loss rate of health education. Using fourfold table to compare pairwise, we could draw that the loss rate was significantly higher of Group C than Group A , while Group B was the lowest and Group C was the highest(P <0.01).

**Table 3 : The Condition of Health Education Loss**

number	A	B	C	Total
A complete education	360	240	200	800
Education loss	260	80	180	520
Total	620	320	374	1320
The loss rate of Education %	41.94 <sup>1, 2</sup>	25 <sup>2</sup>	47.37	--

superscript 1 stands for the comparison of Group B’s loss rate, P<0.05; superscript 2 stands for the comparison with Group C’s loss rate, P<0.05.

**DISCUSSION**

The results of this study shown that the health education could produce a impact on the effect of health education on the prevention of respiratory tract infection. The different culture degree of parents ,whose had different cognitive level on health education, could reflect the effect of health education.According to different cultural degree of parents, it maybe need to provide different educational methods. The result of reduction hospitalization frequency shown that the effect of junior high school was poor in health education, the reason may be parents pay less attention to health education ,and have poor supervision and ineffective implementation.By increasing the frequency of education, the effect of health education on junior middle school the following cultural level of parents should be strengthen to improve the effectiveness of education.The loss rate of health education shown that therewere higher loss rate in junior middle school group and college group . The reason may be that parents pay less attention to health education in junior middle school group .As so ,compliance management of parents should be strengthen .University group of parents had a strong capability to receive knowledge and produce complacency, so this group should be to improve the quality of health education as the main method.

This study shown that the group of junior middle school education parent was with a low frequency and high turnover rate, while the group of university parents maybe have accept the knowledge abilitywhich was easily into complacency to reduce the frequency of children's education

**CONCLUSION**

This study innovatively discusses parents culture degree affect health education caused by children respiratory tract infection . Different cultural degree of parents with different health education on the cognitive level, could have different results. To increase the frequency of health education,parents with junior middle school should be strengthen to improve the effectiveness of education.To reduce the loss rate of health education , parents with university and junior middle school should be strengthen to improve the quality of health education . To decrease hospitalization frequency and health education loss rate, there are satisfactory effect for parents to give them health education by One times every 10 days .

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