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RESEARCH ARTICLE

KNOWLEDGE AND PRACTICE OF PARENTS TOWARDS USING COUGH AND COLD MEDICATION FOR THEIR CHILDREN WHICH HAD A COMMON COLD ATTENDING AT GENERAL PEDIATRICS CLINICS IN MATERNITY AND CHILDREN HOSPITAL IN MAKKAH AL-MUKARRAMAH, KSA, 2019-2020 CROSS-SECTIONAL

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ABSTRACT

Back Ground: The common cold can occur at any time of year, it is a benign condition in the upper respiratory tract system and self-limited disease. Cough and Cold medications lead to major side effects although there is limited data about the knowledge and practice of parents towards using it for their children which had a common cold. **Objectives:** To measure the knowledge of parents, to evaluate the practice of parents and to identify determents of Parents towards using Cough and cold medication for their children which had a common cold at General Pediatrics Clinics in Maternity And Children Hospital in Makkah Al-Mukarramah, KSA, 2019-2020. **Design:** Cross-section analytic study. **Setting:** General pediatrics clinics in Maternity and Children Hospital in Makkah Al-Mukarramah. **Patient and methods:** random selection of parents having children of age 6 years and younger which had a history of common cold and distribution of the valid questionnaire. **Main outcome measures:** sociodemographic data of parents and their children, practice, determents, and knowledge of Parents towards using cough and cold medication for Their Children Which Had a common cold via questionnaire. **Sample size:** 214 of parents of pediatric patients. **Result:** The81.3% of the respondents were female, 75.7% of the sample are Saudi,72.4% were Relationship to the child is a mother of the child,79.0% were aged from 20 to less than 35, 52.3% were the education level is a university and 50.9% were work. The69.2% of the respondents were a child's sex is male, 73.4% were their children aged from two to six years and 85.5%had less than 6 times of common colds during the past year. 96.3% of common colds were diagnosed by the doctor and 34.6% took their children to the Children's clinic in a private hospital. Were 78.0%visit the doctor once a time when their child had a common cold, and 64.5% of the respondents do not use phytomedicine for their child before going to the doctor and 50.9%were using phytomedicine for their child after going to the doctor for the common cold, and 65.0% of them use cough and cold medications for their children during a common cold. There was a statistically significant relationship between common colds among children and demographic variables. **Conclusion:** Approximately more than half of participated using cough and cold medication when their children had a common cold and there was significant statistically for a side effect of using it, which indicates the need for a further broad study of other sectors and cities. **Limitations:** Covering a large population in a limited time.
Conflict of interest: none.

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INTRODUCTION

The common cold can occur at any time of year with a high prevalence during the fall and winter months (1). It can also happen at any age. It's one of the common diseases leading to multiple physician visits and the third most common primary diagnosis in-office visits (2). The common cold is a benign condition in the upper respiratory tract system, self-limited disease usually lasting up to 10 days and traditionally uncomplicated representing a group of diseases caused by one of several respiratory viruses, most common of which is rhinovirus followed by parainfluenza (2).The incidence of the common cold decreases with age(3)(4).Children have around 6 up to 8 colds and adults have two up to 4 colds(5), There are no major sex or ethnicity differences in increased incidence (6). Mortality and morbidity are rare, also common colds are responsible for Discomfort, absenteeism from

school, work, and healthcare costs (6). These viruses more concentrate in nasal discharge, so easily transmitted through inhalation of small particle droplets by sneezing, coughing, nose-blowing, or hand contact of conjunctivae or nasal mucosa of a person contaminated(7). Signs and symptoms of common cold vary from patient to another due to age and type of virus include (low-grade fever, cough, rhinorrhea, sneeze, nasal congestion, sore throat, headache, and hoarseness), other symptoms and signs irritability, difficulty sleeping, decrease appetite, anterior cervical adenopathy and conjunctival conjunction. Vomiting and diarrhea uncommon, the complication maybe as (sinusitis, lower respiratory disease, asthma exacerbations, acute otitis media (8). Acute cough associated with common cold lead to significant impairment in patient quality of life(9)and may affect the child's sleep, school performance, ability to play, can be disruptive in the classroom and may lead to decrees in a child's Intelligence quotient more ever the cough may disturb the sleep of parents or other family members (10). Out of 81 colds studied the most common signs were cough and sneezing (11). Cough present as the third most common symptom and were reported in 69% on day one and persisted in 50% and more on day 8 and it occurs in more than two-thirds of children (2)

The common cold diagnosed clinically based on history and examination findings include (exposure to an infected person with a common cold, nasal congestion or discharge, sore throat, fever... Et cetera (ETC). There is no role to use laboratory tests for diagnosis (12). Clinical features that may indicate a diagnosis other than common colds such as persistent fever more than 39, oral mucosal lesions, absence of nasal symptom, wheezing, focal lung examination (Example gratia (e.g.) dullness to percussion on lung examination ..ETC) or Wight low should think about the differential diagnosis as Allergic, seasonal or vasomotor rhinitis, acute bacterial sinusitis, nasal foreign body or inhaled foreign body, structural abnormalities of nose or sinus pertussis or bacterial pharyngitis or tonsillitis(13). The expected duration of common cold symptoms in young children usually peak on day two to three of sickness and then gradually improve over 10 to 14 days (11). Common cold treat by supporting care as first-line therapy(14) includes one or two of them (maintain adequate hydration, ingestion of warm fluids, topical saline, humidified air and Over-the-counter medications(OTC) for symptomatic relive) but there is no randomized trials study on it unlikely to be harmful (15).

Cough and cold medications (CCM), one of OTC medication, defined as an oral treatment that contains ≥one antitussive, decongestant, expectorant, mucolytic, and/or first-generation antihistamine active ingredients (16). In children less than 6years and 6 to 12 years this medication should be avoided and they can use antipyretics/analgesics (17), because, from randomized trials, systematic reviews and meta-analyses cough and cold medications have not been proven to work any better than placebo in children and may have serious side effects associated with fatal overdose in children younger than two years (18) (19). Furthermore increase toxicity in young children due to metabolism, clearance, and drug effects may vary according to age and no safe dose to them (20). In 2017 May, Green JL, et al. study conducted to assess the safety profile of CCM Use in Pediatrics, a total of the 4202 cases reviewed, 3251 (77.4%) were determined to be at least potentially related to a CCMs, accidental unsupervised ingestions (67.1%) and medication errors (13.0%).The most common exposure types are Liquid (67.3%), pediatric (75.5%), and single-ingredient (77.5%) formulations were most commonly found. side effects occurring in more than 20% of all cases included (tachycardia, drowsiness, hallucinations, ataxia, mydriasis, and agitation). Twenty cases (0.6%) resulted in death, most were in children less than 2 years of age (70.0%), and none involved a therapeutic dose. All reported of side effect rate was 0.573 cases per 1 million units (e. g, tablets, gelatin capsules, or liquid-equivalent) sold (95% confidence interval, 0.553-0.593) or 1 case per 1.75 million units (19).

In 2016 November, Jacobs J et al. A randomized controlled trial carried out to assess a homeopathic syrup in the treatment of cold symptoms in young children, a total of 261 eligible participants, data on 957 doses of study medication in 154 children were analyzed. There was no significant difference in improvement for any symptom between the two groups those receiving the cold syrup compared to placebo recipients. Analysis of twice-daily data dependson the severity of cold symptoms compared to baseline values found that improvements in sneezing, cough, and the composite cold score were significantly greater at both the first and second assessments among those receiving the cold syrup compared to placebo recipients (21).

IN 2015 May, YOUNG CC et al.The study carried out to investigate the knowledge, attitude, and perception of parents on the use of CCM in children. Questionnaires were distributed to parents of children aged 6 years and younger in selected kindergartens. The result of the overall knowledge of the parents (n=248) was satisfactory with a mean score of 5.87 +/- 1.70 (from a total of 10) and the overall attitude was positive with a mean score of 41.15 +/- 6.72 (from a total of 50). Ten percent of parents admitted to administering CCMs in children aged less than 2 years. Age of the parents, education level, and monthly income were found to influence the knowledge level ($p<0.05$) significantly. Spearman's rank-order correlation between knowledge and attitude scores showed a statistically significant positive linear relationship ($r(s), = 0.290$, $p<0.05$). The study provides some insights into the use of CCM in children from the parents' perspectives (22).

2014 Oct, Norazida AR, et al. Across-sectional study carried out to assess CCM in children: a public health concern total of 21,868 encounters, 3574 (16.3%) were children 12 years old and below; 597 (17%) were from open clinics, and 2977 (83%) were from private clinics. Of these 3574 encounters, 1748 (49%) children were prescribed with CCM with a total of 2402 CCM. CCM containing single ingredient constituted 77% of the prescriptions while 23% were of various ingredient preparations. There were 556 (23%) CCM prescribed to children younger than two years. The majority (65%) were prescribed with one CCMper visit, 32% received two CCM, and 3% of the children received three or more CCM per visit (23).

AIMS OF THE STUDY

To evaluate the knowledge and practice of parents towards using cough and cold medication for their children which had

a common cold there for to reduce cough and cold medication abuse.

OBJECTIVES

- To measure the knowledge of parents towards using Cough and cold medication for their children which had common cold attending at General pediatrics clinics in Maternity and Children Hospital In Makkah Al-Mukarramah, KSA, 2019-2020
- To evaluate the practice of parents towards using cough and cold medication for their children which had common cold attending at General pediatrics clinics in Maternity and Children Hospital in Makkah Al-Mukarramah, KSA, 2019-2020
- 3 - To identify determents of Parents towards using cough and cold medication for Their Children Which Had common cold attending at General Pediatrics Clinics in Maternity And Children Hospital in Makkah Al-Mukarramah, KSA, 2019-2020

METHODOLOGY

Study Design: Analytic Cross-sectional study

Study Area: Makkah Al-Mukarramah is a popular holy city in Islam and represents the capital ofMuslims ofthe world, also the place where pilgrims come every year from different countries with different race and languages to perform al-Hajj as one of Islam corner and perform al-Omrah over the year. The population living in Makkah around is (1675368). Major governmental services; such as Health, Education, Electricity, Municipality, Transportation as AL-haramin train station. The city has 1 military hospital which provides services to members of the Saudi armed forces and their family members, 10 Ministry of Health (MOH) hospitals where 2 of them have pediatric specialty distributed all around Makkah. Maternal and children hospital located (MCH) in south Makkah has multiple subspecialties of the pediatric department. The study will be conducted in MCH.

Study Population: Parents having Children of age 6 years and younger which had a history of common cold attending MCH.

Sample size: The total number of pediatric patients were attending MCH in Makkah Almukarramah over one month for general pediatrics clinics 480 pediatrics patients, total number per week 120 pediatrics patients for eight general clinics. The prevalence of CCM use in pediatric with a common cold was around 50%. Setting Confidence level (CI) 95%, a sampling error of 5%, the sample size is 214 and calculated by a Raosoft website.
The researcher added 10%to the recommended sample size to compensate for any non-responder participant, the sample size is 235.

ELIGIBILITY CRITERIA

Inclusion criteria

All ages of parents Parents having children of 6 years and younger and if there is more one chose the last one child Both Gender Parents having children who had a history with Common cold

Exclusion criteria: Parents having children of age 6 years and younger who had common cold illness within last month before data collection. Parents having children of age 6 years and younger having common cold illnessat the time of data collection. Parents having children of age 6 years and younger with a chronic respiratory illness like asthma.

Sampling technique: The researcher was needing (221/16 days = about 14 cases per day). The researcher used simple random for the first patient and systematic sampling for the next patients by dividing the total eligible parents per day to the required sample. (30/14 =2), therefore, every second eligible parent is invited to participate in the study, the second eligible parents were selected by randomization as a starting point and then every second parent (2nd, 4th, 6th, 8th …etc.), for anyone refused to participate, the next patient on the list selected then the selection continued in the same interval ofevery second eligible parent.

Data collection tool

Arabic self-administered questioner used, and it consisted of multiple-choice and checklist questions.

It included three main sections:

- Sociodemographic characteristic of parents and children's
- Knowledge ofparents about common cold illness and management
- Previous use ofa cough and cold medication

The questioner constructed by the researcher, and tested during the pilot study and valid by two pediatric consultants and one family medicine consultant.

Data Collection technique: The available data collection duration was four weeks. After permission, the researcher visits the selected hospital during that period and attend the pediatric clinic and the researcher asked the nurse to give a list for entire visiting patients each day to the clinic, then chosen the 1st one of the sample by simple random technique while the remaining by systematic random technique. After taking the permission from a participant, the researcher distributed the questionnaires to the parents of the involved children who were having the inclusion criteria and attend pediatric clinics of MCH when they were sitting in the waiting area before entering the clinic at break time from 12 p.m. to 1 p.m. for four weeks from 1Dec to 26 Dec, that year 2019.

STUDY VARIABLES

Dependent variable: The level ofknowledge and practice of Parents using CCMs for Their Children Which Had a common cold.

Independent variables: The socio-demographic characteristic of parents having children of age 6years and younger which had a history ofthe common cold include for parents (age, gender, nationality, their relationship with their

children, level of education, occupation, numbers of the previous history of common cold, diagnosed by a doctor, place of management, times of visit clinic, using of phytomedicine before and after, using CCM, duration time of using CCM, the prescriber, reading information of CCM, dose adjustment, using ofCCM without a label ofdoses, use more than one of CCM, storage of CCM post used, using CCM without consultation, CCM using to improve sleep patterns of both parent and their child, CCM using to improve child appetite, CCM using to improve child activity, CCM using for rather than a common cold, the side effect of CCM, benefit of CCM and informed by a doctor it's limited no need CCM) for pediatrics include (age, gender and kindergarten).

Data entry and analysis

Statistical program for social sciences ((SPSS)) used by the personal computer for data entry and analysis. Differences considered as statistically significant when the p-value< 0.05

Pilot study/pretesting: A pilot study was conducted in Hera general Hospital in Makkah Almukarramah. Its aim was to test the feasibility of the study, clarity of the questionnaire, and estimating the time needed to fill it. As feedback, the questionnaire was clear so, there was no need to change. Approximately 5 minutes were needed to fill it by one ofthe parents.

Limitations

Covering a high number of populations in a limited time.
Budget: The study was self-Budget

RESULTS

All demographic variables in a table (1) we reanalyzed by calculating the frequency and percentage of each variable category. The below table (1) declares that most of the respondents were female, 174 of whom were 81.3% of all respondents but the male respondents were the lowest number between the respondents with 18.7%, and the most of the respondents were Saudi, 162 of whom were 75.7% of all respondents but the other nationality was the lowest number between the respondents with 24.3% moreover,the most of the respondents were Relationship to the child is a mother of the child, 155 of whom were 72.4% of all respondents but the Relationship to the child is baby sister was the lowest number between the respondent with 0.5%. While the results showed in table and figure (1)that most of the respondents were age is from 20 to less than 35, 169 of whom were 79.0% of all respondents but the age under 20 years old was the lowest number between the respondents with 0.5%. Besides, most of the respondents were The Educational level is a university, 112 of whom were 52.3% of all respondents but the educational level secondary was the lowest number between the respondents with 17.3%. And according to the occupation variable, most ofthe respondents were work, 109 of whom were 50.9% of all respondents but the respondent who did not work was the lowest number between the respondents with 49.1%.

The below table (2) showed that most of the respondents were child's sex is male, 148 of whom were 69.2% of all respondents but the child's sex is female was the lowest number between the respondents with 30.8 %, and 73.4% of all respondents were Child's Age from two to six years, 157 of them, while the Child's Age less than two years was the lowest number between the respondents with 26.6%. Moreover, most of the respondents were not their children currently in kindergarten, 153 of whom were 71.5%. The below table (3) declares that most of the respondents were the number of common colds past year is less than 6 times, 183 of whom were 85.5% of all respondents but the number of common colds past year is more than 8 times was the lowest number between the respondents with 2.3%.And it declares that most of the respondents were a common cold diagnosed by a doctor, 206 of whom were 96.3% of all respondents but a common cold was not diagnosed by a doctor with 3.7%. Also, most of the respondents went with their baby to Children's clinic is a private hospital, 74 of whom were 34.6% of all respondents but the respondents went with their baby to Private hospital emergency was the lowest number between the respondents with 16.4% as also showed in a figure (3.1). While, most of the respondents were visit once time to the doctor when your child had a common cold, 167 of whom were 78.0% of all respondents but the respondents of more than once time visit the doctor when your child had a common cold was the lowest number between the respondents with 22.0%. Moreover, most of them were not usingphytomedicine for your child before you go to the doctor for a common cold, 138 of whom were 64.5% of all respondents but the respondents were using phytomedicine for your child before you go to the doctor for a common cold was the lowest number between the respondents with 35.5% as also showed in figure.
And most of the respondents were usingphytomedicinefor your child after you go to the doctor for a common cold, 109 of whom were 50.9% of all respondents but the other respondent not use phytomedicinefor your child after you go to the doctor for a common cold was the lowest number between the respondents with 49.1% as also showed in figure (3.3). The below table (3) and figure (3.4) also declares that most of the respondents were using cough and cold medications for your child during a common cold, 139 of whom were 65.0% of all respondents but the respondents were not using cough and cold medications for your child during a common cold was the lowest number between the respondents with 35.0%. The below table (4) showed the Relationship between common colds among children and demographic variables. There was a statistically significant relationship between sex categories and all items except two items there was no statistically significant relationship between Was a common cold diagnosed by a doctor? (p=0.185), How often do you visit the doctor when your child had a common cold? (p= 0.167) and sex. Then there was a statistically significant relationship between nationality categories and 12 items: How many common colds during the past year? (p=0.008), Ifyes, where did you go with your baby? (p=0.00), How long have you used cough and cold medications for your child during a common cold? (p=0.001), Who dispensed your treatment during your child's common cold? (p=0.022), Do you keep the cough and cold medications after using it in your home? (p=0.004), If yes, would you use the treatment again without consulting a doctor when your child coughs? (p=0.011), Are you using cough and cold medications to relieve symptoms that made your childless active or prevented him from going to public places? (p=0.00), Do you use a cough and cold medications because of your child's annoying cough that prevents you

from sleeping comfortably and affects your performance at work? (p=0.00), Abdominal pain, diarrhea, constipation, nausea, or vomiting. Swelling of the gums in the mouth (p=0.002), If yes, who told you that?(p=0.042), Has the doctor told you that the common cold is temporary and that it does not need any cough and cold medications and that it does not benefit your child?(p=0.001) and did you know about the side effects caused by cough and cold treatments? (p=0.00). However, there was no statistically significant relationship between other items and nationality.

Moreover, the table showed that there was a statistically significant relationship between a relationship with the child categories and all items except one item there was no statistically significant relationship between If yes, where did you go with your baby? (0.493) and relationship with the child. While there was a statistically significant relationship between age categories and all items except four-item there was no statistically significant relationship between was a common cold diagnosed by a doctor? (0.529), If yes, where did you go with your baby? (0.329), How often do you visit the doctor when your child has a common cold? (p= 0.434), Do you use phytomedicine for your child before you go to the doctor for a common cold? (p=0.078) and age. Also, there was a statistically significant relationship between Educational level categories and all items except three items there was no statistically significant relationship between how many common colds during the past year? (p=0.215), was a common cold diagnosed by a doctor? (0.100), If yes, where did you go with your baby? (p=0.522) and Educational level. And, there was a statistically significant relationship between Occupation categories and 10 items: If yes, where did you go with your baby? (p=0.007), How often do you visit the doctor when your child had a common cold? (p=0.015), Do you use phytomedicine for your child before you go to the doctor for a common cold? (p=0.001), Do you use phytomedicine for your child after you go to the doctor for a common cold? (p=0.027), Do you read the information on the treatment label? (p=0.013), If yes, are you following the right dose for your child? (p=0.051), If yes, would you use the treatment again without consulting a doctor when your child coughs? (p=0.003), Do you use cough and cold treatment because of your child's annoying cough that prevents you from sleeping comfortably and affects your performance at work? (p=0.009), If yes, who told you that? (p=0.011). However, there was no statistically significant relationship between other items and Occupation. Besides, the above table showed that there was a statistically significant relationship between Child's gender categories and all items except five items how many common colds during the past year? (p=0.051), was a common cold diagnosed by a doctor? (0.206), How often do you visit the doctor when your child had a common cold? (p=0.240), Do you use phytomedicine for your child before you go to the doctor for a common cold? (p=0.490), Do you use phytomedicine for your child after you go to the doctor for a cold? (p=0.289), If yes, are you following the right dose for your child? (p=0.076) and Child's gender. The below table (5) showed that there was a statistically significant relationship between Child's gender categories and all items except five items how many common colds during the past year? (p=0.051), was a common cold diagnosed by a doctor? (0.206), How often do you visit the doctor when your child had a common cold? (p=0.240), Do you use phytomedicine for your child before you go to the doctor for a common cold? (p=0.490), Do you use phytomedicine for your child after you go to the doctor for a common cold? (p=0.289), If yes, are you following the right dose for your child? (p=0.076) and Child's gender. While, it showed that there was a statistically significant relationship between is your child currently in kindergarten? Categories and 12 items: How many common colds during the past year? (p=0.002), Do you use phytomedicine for your child before you go to the doctor for a common cold? (p=0.007), Do you use phytomedicine for your child after you go to the doctor for a common cold? (p=0.05), Do you use cough and cold medications for your child during a common cold? (p=0.013), How long have you used cough and cold medications for your child during a common cold? (p=0.044), Do you read the information on the treatment label? (p=0.025), If yes, have you seen on the treatment label the appropriate dose for your child? (p=0.011), If yes, are you following the right dose for your child? (p=0.037), If you don't find the right dose for your child on the treatment label, should you give it to your child? (p=0.020), Are you using more than one cough medication at the same time if your child is sick? (p=0.00), Do you use cough and cold medications to put your baby to sleep comfortably if he was coughing during a common cold? (p=0.011), Are you using cough and cold medications to relieve symptoms that made your childless active or prevented him from going to public places? (p=0.005), Do you use a cough and cold medications because of your child's annoying cough that prevents you from sleeping comfortably and affects your performance at work?(p=0.045), Cramps, high temperature, epilepsy, high heart rate, high blood pressure, redness of the eyelid, eye pain, blurred vision(p=0.019), Visual or auditory hallucinations Unusual movements of your child(p=0.013), Cyanosis of the skin, shortness of breath and his death (p=0.020), Is cough and cold medications good for your child during a common cold?(p=0.047) and Has the doctor told you that the common cold is temporary and that it does not need any cough or cold medications and that it does not benefit your child?(p=0.027) However, there was no statistically significant relationship between other items and Is your child currently in kindergarten?. And according to Child's age, There was a statistically significant relationship between Child's age categories and all items except three items: How many common colds during the past year? (p=0.360), How often do you visit the doctor when your child had a common cold? (p=0.071), Do you use phytomedicine for your child after you go to the doctor for a common cold? (p=0.318) and Child's age.

DISCUSSION

This study indicates to evaluate the knowledge and the practice of parents towards using Cough and cold medication for their children which had a common cold attending at General pediatrics clinics in Maternity and Children Hospital In Makkah Al-Mukarramah, KSA, 2019-2020, And to list determents of Parents towards using cough and cold medication for Their Children Which Had a common cold attending at General Pediatrics Clinics in Maternity And Children Hospital in Makkah Al-Mukarramah, KSA, 2019-2020. The results indicate that more than two-thirds of the respondents were female, and the majority of the sample are Saudi. Moreover,most of the respondents were Relationship to the child is a mother of the child and more than two-thirds of the respondents were aged from 20 to less than 35.

Part 1. Demographic data table (1).

Variable	choices	Frequency	Percent
Sex	Male	40	18.7%
	Female	174	81.3%
Nationality	Saudi	162	75.7%
	Other	52	24.3%
Relationship to the child	The mother of the child	155	72.4%
	The father of the child	34	15.9%
	Brother of the child	5	2.3%
	Aunt's child	12	5.6%
	The child's aunt	7	3.3%
	Baby sister	1	0.5%
Age	Under 20 years old	1	0.5%
	From 20 to less than 35	169	79.0%
	From 35 to less than 45	37	17.3%
	45 years and over	7	3.3%
Educational level	secondary	37	17.3%
	University	112	52.3%
	Postgraduate	65	30.4%
Occupation	Not Work	105	49.1%
	Work	109	50.9%

Part 2: Information about the child table (2).

Variable	Choices	Frequency	Percent
Child's Sex	Male	148	69.2%
	Female	66	30.8%
Child's Age	Less than two years	57	26.6%
	From two to six years	157	73.4%
Is your child currently in kindergarten?	Yes	61	28.5%
	No	153	71.5%

Part 3: Child's medical history table(3).

Variable	Choices	Frequency	Percent
How many common colds during the past year?	Less than 6 times	183	85.5%
	6 to 8 times	26	12.1%
	More than 8 times	5	2.3%
Was a common cold diagnosed by a doctor?	Yes	206	96.3%
	No	8	3.7%
If yes, where didyou go with your baby?	Governmental Hospital Emergency	48	22.4%
	Private hospital emergency	35	16.4%
	Children's clinic is a private hospital	74	34.6%
	A health center nearby	49	22.9%
	do not apply	8	3.7%
How often do you visit the doctor when your child had a common cold?	Once	167	78.0%
	More than once	47	22.0%
Do you use phytomedicine for your child before you go to the doctor for a common cold?	Yes	76	35.5%
	No	138	64.5%
Do you use phytomedicinefor your child after you go to the doctor for a common cold?	Yes	109	50.9%
	No	105	49.1%
Do you use cough and cold medications for your child during a common cold?	Yes	139	65.0%
	No	75	35.0%

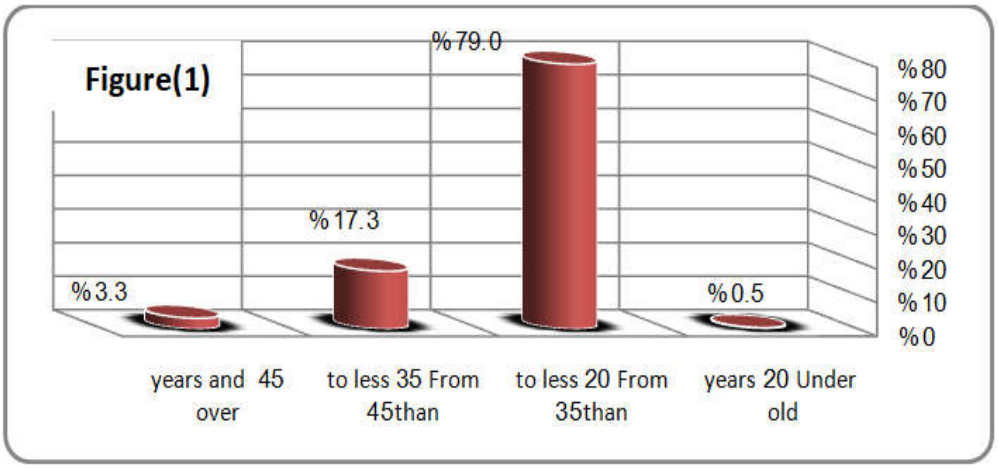


Table 4. Part Four: The relationship between selected demographical data common colds are common among children

Items	*demographical data*	Chi-	P
Was a common cold diagnosed by a doctor?	Sex	1.911	*0.185*
How often do you visit the doctor when your child had a common cold?	Sex	1.391	*0.167*
Was a common cold diagnosed by a doctor?	*Nationality*	2.668	*0.103*
How often do you visit the doctor when your child had a common cold?	*Nationality*	0.050	*0.480*
Do you use phytomedicine for your child before you go to the doctor for a common cold?	*Nationality*	0.712	*0.248*
Do you use phytomedicine for your child After you go to the doctor for a common cold?	*Nationality*	2.071	*0.100*
Do you use cough and cold medications for your child during a common cold?	*Nationality*	1.160	*0.182*
Do you read the information on the treatment label?	*Nationality*	3.683	*0.159*
If yes, have you seen on the treatment label the appropriate dose for your child?	*Nationality*	2.697	*0.260*
If yes, are you following the right dose for your child?	*Nationality*	2.457	*0.293*
If you don't find the right dose for your child on the treatment label, should you give it to your child?	*Nationality*	0.215	*0.898*
Are you using more than one cough medications at the same time if your child is sick?	*Nationality*	3.576	*0.167*
Do you use cough and cold medications to put your baby to sleep comfortably if he is coughing during a common cold?	*Nationality*	5.486	*0.064*
Do you use cough and cold medications to get your child to eat comfortably when he gets a cough during a common cold?	*Nationality*	5.192	*0.075*
Do you use cough and cold medications for non-cold times to put your baby to sleep?	*Nationality*	1.294	*0.523*
Cramps, high temperature, epilepsy, high heart rate, high blood pressure, redness of the eyelid, eye pain, blurred vision	*Nationality*	5.688	*0.058*
Visual or auditory hallucinations Unusual movements of your child	*Nationality*	1.160	*0.182*
Cyanosis of the skin, shortness of breath and his death	*Nationality*	2.747	*0.253*
Is cough and cold treatment good for your child during a cold?	*Nationality*	1.192	*0.551*
How often do you visit the doctor when your child had a common cold?	*relationship with the child*	4.402	*0.493*
Was a common cold diagnosed by a doctor?	*Age*	2.213	*0.529*
If yes, where did you go with your baby?	*Age*	13 574	*0.329*
How often do you visit the doctor when your child has a common cold?	*Age*	2.738	*0.434*
Do you use phytomedicine for your child before you go to the doctor for a common cold?	*Age*	6.817	*0.078*
How many common colds during the past year?	*Educational level*	5.793	*0.215*
Was a common cold diagnosed by a doctor?	*Educational level*	4.610	*0.100*
If yes, where did you go with your baby?	*Educational level*	7.136	*0.522*
How many common colds during the past year?	*Occupation*	5.679	*0.058*
Was a common cold diagnosed by a doctor?	*Occupation*	0.445	*0.382*
Do you use cough and cold medications for your child during a common cold?	*Occupation*	0.266	*0.355*
How long have you used cough and cold medications for your child during a common cold?	*Occupation*	1.793	*0.616*
Who dispensed your treatment during your child's commoncold?	*Occupation*	3.817	*0.148*
If yes, have you seen on the treatment label the appropriate dose for your child?	*Occupation*	3.639	*0.162*
If you don't find the right dose for your child on the treatment label, should you give it to your child?	*Occupation*	0.065	*0.968*
Are you using more than one cough medication at the same time if your child is sick?	*Occupation*	0.933	*0.627*
Do you keep the cough and cold medications after using it in your home?	*Occupation*	1.063	*0.588*
Do you use cough and medications to put your baby to sleep comfortably if he is coughing during a common cold?	*Occupation*	0.615	*0.735*
Do you use cough and cold medications to get your child to eat comfortably when he gets a cough during a common cold?	*Occupation*	5.666	*0.059*
Are you using cough and cold medications to relieve symptoms that made your child less active or prevented him from going to public places?	*Occupation*	0.287	*0.866*
Do you use cough and cold medications for non- common cold times to put your baby to sleep?	*Occupation*	0.367	*0.832*
Cramps, high temperature, epilepsy, high heart rate, high blood pressure, redness of the eyelid, eye pain, blurred vision	*Occupation*	2.025	*0.363*
Abdominal pain, diarrhea, constipation, nausea, or vomiting. Swelling of the gums in the mouth	*Occupation*	0.919	*0.631*
Visual or auditory hallucinations Unusual movements of your child	*Occupation*	0.266	*0.355*
Cyanosis of the skin, shortness of breath and his death	*Occupation*	4.445	*0.108*
Is cough and cold treatment good for your child during a cold?	*Occupation*	1.602	*0.449*
Has the doctor told you that the common cold is temporary and that it does not need any cough and cold medications and that it does not benefit your child?	*Occupation*	0.447	*0.800*
Did you know about the side effects caused by cough and cold medications?	*Occupation*	1.878	*0.391*

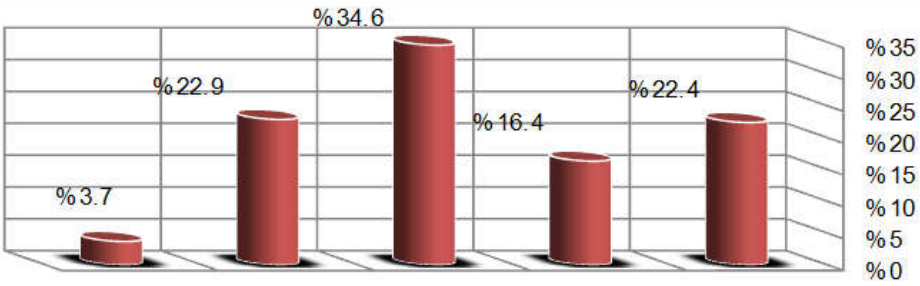


Figure (3.1)

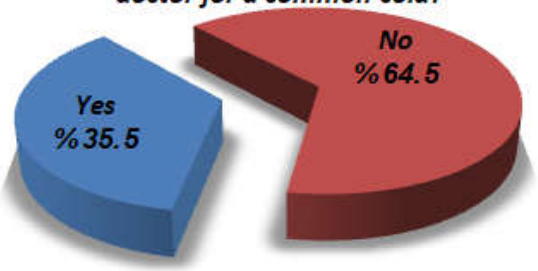
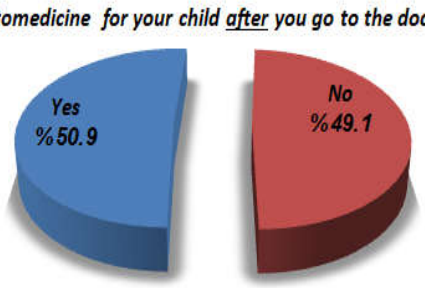
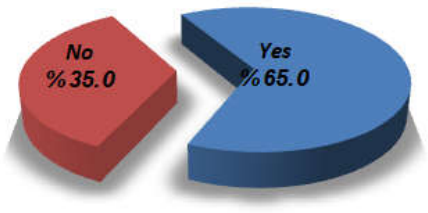


Figure (3.2)



Figure(3.3)



Figure(3.4)

Part Five: The relationship between selected Information about the child and common Colds among children Table (5)

Items	Information about the child	Chi-	P
How many common colds during the past year?	Child's gender	5.934	0.051
Was a common cold diagnosed by a doctor?	Child's gender	1.430	0.206
How often do you visit the doctor when your child had a common cold?	Child's gender	0.796	0.240
Do you use phytomedicine for your child before you go to the doctor for a common cold?	Child's gender	0.030	0.490
Do you use phytomedicine for your child After you go to the doctor for a common cold?	Child's gender	0.498	0.289
If yes, are you following the right dose for your child?	Child's gender	5.158	0.076
How many common colds during the past year?	Child's age	2.044	0.360
How often do you visit the doctor when your child had a common cold?	Child's age	2.802	0.071
Do you use phytomedicine for your child After you go to the doctor for a common cold?	Child's age	0.395	0.318
Was a common cold diagnosed by a doctor?	is your child currently in kindergarten?	1.045	0.281
If yes, where did you go with your baby?	is your child currently in kindergarten?	7.430	0.115
How often do you visit the doctor when your child has a common cold?	is your child currently in kindergarten?	0.261	0.377
Who dispensed your treatment during your child's common cold?	is your child currently in kindergarten?	5.486	0.064
Do you keep the cough and cold medications after using it in your home?	is your child currently in kindergarten?	5.567	0.062
If yes, would you use the treatment again without consulting a doctor when your child coughs?	is your child currently in kindergarten?	4.022	0.134
Do you use cough and cold medications to get your child to eat comfortably when he gets a cough during a common cold?	is your child currently in kindergarten?	5.722	0.057
Do you use cough and cold medications for non-common cold times to put your baby to sleep?	is your child currently in kindergarten?	5.549	0.062
Abdominal pain, diarrhea, constipation, nausea, or vomiting. Swelling of the gums in the mouth	is your child currently in kindergarten?	5.505	0.064
If yes, who told you that?	is your child currently in kindergarten?	6.618	0.085
Did you know about the side effects caused by cough and cold medications?	is your child currently in kindergarten?	5.484	0.064

Also, more than half of the respondents their educational level is a university, and the results declared that the majority of the respondents were work, also the majority of the respondents were child's sex is male. More than two-thirds of the respondents their children aged from two to six years. The results also showed that the majority of the respondents, their child were not in currently kindergarten (71.5%).more than two-thirds of respondents had less than 6 times of common colds during the past year (85.5%). About all the responders, their common colds were diagnosed by the doctor (96.3%), about one-third of them, took their children to the Children's clinic in a private hospital(34.6%). Also, more than two-thirds of the responders visit the doctor once a time (78.0%) when their child has a common cold. Besides, on one hand, more than half of the respondents do not use phytomedicine for their child before going to the doctor for common colds(64.5%).On the other hand, about half of the respondents were using phytomedicine for their child after going to the doctor for a common cold. Most of the respondents use cough and cold medications for their children during a common cold (65.0%). The results showed the relation between common cold among children and demographical data (sex, nationality, relationship with the child, age, Educational level, Occupation). On one hand, there is a relationship between common cold among children and sex in general, on the other hand, there is no relationship between sex and" Was a common cold diagnosed by a doctor? " How often do you visit the doctor when your child has a cold? ". The results also showed the relationship between common colds and Nationality. There was a relationship between Nationality and "How many colds during the past year? If yes, where did you go with your baby?. How long have you used cough and cold medications for your child during a common cold?, Who dispensed your treatment during your child's common cold?, Do you keep the cough and cold medications remedy after using it in your home? If yes, would you use the treatment again without consulting a doctor when your child coughs?. Are you using cough and cold medications to relieve symptoms that made your childless active or prevented him from going to public places? Do you use a cough and cold medications because of your child's annoying cough that prevents you from sleeping comfortably and affects your performance at work? , Abdominal pain, diarrhea, constipation, nausea, or vomiting. Swelling of the gums in the mouth, If yes, who told you that?, Has the doctor told you that the common cold is temporary and that it does not need any cough or cold medications and that it does not benefit your child? (And did you know about the side effects caused by cough and cold medications? And there was a relationship between " your relationship with the child" and common colds among children, but there was no relationship between" If yes, where did you go with your baby? and relationship with the child. About the relation between common colds among children and Age, the results showed that there was a relationship between common colds among children and Age except " was a cold diagnosed by a doctor?"," If yes, where did you go with your baby?", "How often do you visit the doctor when your child has a cold?"," Do you use phytomedicine for your child before you go to the doctor for a cold?", there was no relationship between them and Age. The results also showed the relationship between common colds among children and the Educational level.

There was no relationship between " how many common colds during the past year?, was a common cold diagnosed by a doctor?, If yes, where did you go with your baby? And the Educational level. According to the relationship between common colds among children and Occupation. There was a relationship between ": If yes, where did you go with your baby?", How often do you visit the doctor when your child has a cold? "," Do you use phytomedicine for your child before you go to the doctor for a common cold?"," Do you use phytomedicine for your child after you go to the doctor for a common cold?", Do you read the information on the treatment label?", If yes, are you following the right dose for your child?"," If yes, would you use the treatment again

without consulting a doctor when your child coughs?"," Do you use cough and cold treatment because of your child's annoying cough that prevents you from sleeping comfortably and affects your performance at work?"," If yes, who told you that?". The results showed the relation between common colds among children and a child's gender and child's age. There was no relationship between (how many common colds during the past year?, was a common cold diagnosed by a doctor?, How often do you visit the doctor when your child has a common cold?, Do you use phytomedicinefor your child before you go to the doctor for a common cold?, Do you use phytomedicine for your child after you go to the doctor for a common cold?, If yes, are you following the right dose for your child?) and Child's gender. And there was no relationship between (How many colds during the past year?, How often do you visit the doctor when your child has a common cold?, Do you use phytomedicinefor your child after you go to the doctor for a cold?) and Child's age.

Finally, the results also showed the relationship between common colds among children and "is your child currently inkindergarten?".There was a relationship between(How many common colds during the past year?, Do you use phytomedicine for your child before you go to the doctor for a common cold?, Do you use phytomedicine for your child after you go to the doctor for a common cold?, Do you use cough and cold medications for your child during a common cold?, How long have you used cough and cold medications for your child during a common cold?, Do you read the information on the treatment label?, If yes, have you seen on the treatment label the appropriate dose for your child?, If yes, are you following the right dose for your child?, If you don't find the right dose for your child on the treatment label, should you give it to your child?, Are you using more than one cough medication at the same time if your child is sick? Do you use cough and cold medications to put your baby to sleep comfortably if he is coughing during a common cold?, Are you using cough and cold medications to relieve symptoms that made your childless active or prevented him from going to public places?, Do you use a cough and cold medications because of your child's annoying cough that prevents you from sleeping comfortably and affects your performance at work?, Cramps, high temperature, epilepsy, high heart rate, high blood pressure, redness of the eyelid, eye pain, blurred vision, Visual or auditory hallucinations Unusual movements of your child, Cyanosis of the skin, shortness of breath and his death, Is cough and cold medications good for your child during a common cold?, Has the doctor told you that the common cold is temporary and that it does not need any cough or cold medications and that it does not benefit your child?) and " Is your child currently in kindergarten?".

RESULTS

Sample size: The total number of participants in this study was (214). Sociodemographic characteristic of parents and children's.

Age: The age of this study sample population ranged from less than 20 to45 years and over. The most common age group was years from 20 to less than 35 with(169 persons) (79%). While the age group (under 20 years old) was the lowest number between the respondents with (1 person) (0.5%). Other demographic data like: (gender, nationality, their relationship with their children, level of education, occupation, kindergarten) are illustrated in the following tables (1) and (2) Knowledge ofparents about common cold illness and management:

Numbers ofthe previous history ofcommon colds. The study showed that 85.5% had less than 6 times of common colds, which represent almost more than Three –quarters of the study population, interestingly 12.1% had from 6 to 8 times of common colds, and 2.3% had more than 8 times of common colds.

Diagnosed by a doctor: Among participants, 96.3% oftheir common colds were diagnosed by a doctor, which represent all of the sample population, 3.7% of their common colds weren't diagnosed by a doctor.

Place of management

Almost one-third of the participants (34.6%) took their babies to Children's clinic in a private hospital, while 22.9% took them to A health center nearby, 22.4% to Governmental Hospital Emergency, and 16.4% ofthe participants took their babies to Private hospital emergency.

Times of visit clinic

The study showed that more than three-quarters of the participants visit the clinic once a time when their babies had a common cold, while 22% ofthem visit the clinic more than once time.

Previous use of a cough and cold medication

The study showed that 64.5% of the participants do not give their children phytomedicine before going to the doctor, while 35.5% do. Besides, 50.9% which represented almost the halfofthe sample give phytomedicine for their child after going to the doctor,49.1% didn't that.

The results showed that 65.0% ofthe respondents give their children cough and cold medications during a common cold, while 35.0% didn't give their children those medications.

Conclusion and recommendations

Approximately more than half of participated using cough and cold medication when their children had a common cold and there was significant statistically for a side effect of using it and using ofcough and cold medications rather than a common cold as for making their children sleep well which indicates the need for a further broad study of other sectors and cities and increase the awareness of common colds is self-limited and the side effect ofCCM is beginning through:

- The pediatrician doctors, family medicine physicians, and pharmacists ether in privet and governmental hospital of a pediatric clinic.
- Limiting or making of prescription for CCM.

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