Knowledge, Attitude and Practice Regarding Fever in Children among Parents Attending Primary Health Care Centers in Al-Kherkh district in Baghdad City 2019

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ABSTRACT

Background: Fever is a common symptom of mostly benign illness in young children and a common presenting compliant during health visits, parents' knowledge, attitude and practice in home managing of fever varies according to their background and experience.
Objectives: To assess knowledge, attitude and practice regarding childhood fever among parents attending primary health centers in Baghdad, Iraq.
Methods: A descriptive cross-sectional study was conducted among 400 parents attending 12 primary health care centers in Baghdad at Al Karkh directorate during the period between 1st of February and 30th of July 2019. Data were collected by using direct interviewing questionnaire.
Results: Regarding knowledge only (25%, 58%) of parents with good and fair level of knowledge respectively. Parents attitude for fever management was only (18%, 42%) with good and fair attitude level respectively. The correct attitude toward fever management answers was (40%, 38%) about consulting the pediatrician to decide the right fever lowering drug and its dose respectively. Parents practice; two third of the sample had fair level of practice and only (17%) with good level.
Conclusions: The good parents' attitude is associated with parent age, higher education and low parity. A good parents practice is associated with higher education and higher parity. And the study indicates that parents manage their child's fever incorrectly, often misuse the antipyretics medications and follow inappropriate practices to reduce fever.
Keywords: Fever in children, parents' knowledge, Attitudes and management practice.

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Fever is an elevation in body temperature above the normal range. The normal range of body varies according to the age of the children, method of measurement, and time of day. A rectal temperature of ≥37.8°c (100°F) in newborn or ≥ 38°c (100.4°F) in older infant and children denotes fever. Rectal temperature most consistently reflect the body's core temperature[1].

Fever, a main symptom of illness, is considered harmful by many parents and a disease in itself[2]. They often feel anxious when their child is sick, and believe they are not caring appropriately for their child if they do not treat the fever. However, parents remain concerned about and mismanage fever, and seek information and reassurance about their management practices[3]. Papers describing parents' concern about inappropriate management of fever have be published in the health care literature over the past few decades, and educational programmers developed to assist parents manage childhood fever have proven effectively worldwide[4]. Such as in NICE feverish illness guideline in 2017[5] and American Academy of pediatrics (making your child comfortable)

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in 2016[6]. Several national health agencies and medical societies arrange key steps to guide the management of fever include the method for measuring temperature, threshold for defining fever, indications for starting antipyretic drug treatment, and physical and drug treatments[7].

The current study conducted to assess knowledge, attitude and practice among parents regarding childhood fever.

Methods

A descriptive cross sectional study, was conducted between 1st of February to 30th of July 2019 on parents having children under 12 years of age attending primary health care centers (PHCCs). By a multi-stage sampling technique twelve PHCCs selected randomly from four sectors in Al-Karkh directorate in Baghdad city. A convenient sample of 400 fathers and mothers were interviewed.

The data collected by using a structured questionnaire including four parts: The socio-demographic data (age, father, mother, educational level, occupation, number of children). The second part: A set of questions testing parents' knowledge about child fever which answered as multiple choice these questions included (the best place to taken temperature, method to measure the temperature, the mean of normal body temperature, the degree of fever, the time for measure the temperature, causes of fever, the side effect of fever). The third part: A list of questions evaluate the parents' attitude regarding childhood fever which respond by yes or no or I don't know. These include (who decided the right fever lowering drugs and the dosage, method for the dose calculation, the benefit of large dose of fever lowering drug and the use of antibiotics). The fourth part: A list of closed ended questions about the practice of parents toward their child with fever these include; having thermometer, method to measure the temperature, remedies use to control the body temperature, antipyretic gave to the child, which route prefer to give the fever lowering drug, the use of antibiotic drug, the indication of seeking medical help and care.

Results

Three hundred and twenty (80%) of studied parents were mothers and only 80 (20%) were fathers. According to the age the majority (51.8%) felled in the age group (25-31) years. Regarding level of education 188 (47.0%) had secondary school level and most of the study sample were unemployed 69.5%.

According to number of children 210 (52.5%) of the participant had 2-3 children, (Table 1).

No significant association between knowledge level and parent type, parents' age, education level, number of children, and job as shown in table 2.

As shown in table 3, a significant association was found between parents' attitude level and parents' age (32-38) years P value (0.05). Good parents' attitude significantly associated with higher level of parents' education and low parity, p value = 0.001 in both.

In table 4, a significant association was noticed between level of practice and higher education, p value = 0.022, high parity (4 children and more), p value = 0.002.

Table 1: Distribution of study sample according to socio-demographic characteristics (n =400).

	Variables	***No.***	***%***
Parent type	Father	80	20.0
	Mother	320	80.0
Parents age	<25 years	90	22.5
	25-31 years	207	51.8
	32-38 years	39	9.8
	>38 years	64	16.0
Education	Primary	136	34.0
	Secondary	188	47.0
	University	76	19.0
Employment state	Unemployed	278	69.5
	Employed	122	30.5
Children	1 child	82	20.5
	2-3 children	210	52.5
	4 and more	108	27

Table 2: Association between socio-demographic characteristic and level of knowledge.

Variables		Knowledge level						X2	DF	P value
		Poor		Fair		Good				
		Count	Row N %	Count	Row N %	Count	Row N %			
Parent type	Father	18	22.5%	44	55.0%	18	22.5%	1.787	2	0.409
	Mother	52	16.3%	186	58.1%	82	25.6%			
Parents' age	<25 years	22	24.4%	50	55.6%	18	20.0%	8.823	6	0.184
	25-31 years	34	16.4%	121	58.5%	52	25.1%			
	32-38 years	8	20.5%	23	59.0%	8	20.5%			
	>38 years	6	9.4%	36	56.3%	22	34.4%			
Education	Primary	28	20.6%	82	60.3%	26	19.1%	0.161	4	0.161
	Secondary	32	17.0%	108	57.4%	48	25.5%			
	University	10	13.2%	40	52.6%	26	34.2%			
Children	1 child	16	19.5%	46	56.1%	20	24.4%	0.431	4	0.980
	2-3 children	36	17.1%	120	57.1%	54	25.7%			
	4 and more	18	16.7%	64	59.3%	26	24.1%			
Job	Unemployed	50	18.0%	162	58.3%	66	23.7%	0796	2	0.672
	Employed	20	16.4%	68	55.7%	34	27.9%			

Table 3: Association between socio-demographic characteristic and attitude level.

		Attitude								
		Poor		Fair		Good		X^2	DF	P value
		Count	Row N %	Count	Row N %	Count	Row N %			
Parent type	Father	24	30.0%	42	52.5%	14	17.5%	5.139	2	0.077
	Mother	136	42.5%	126	39.4%	58	18.1%			
Parents age	<25 years	40	44.4%	34	37.8%	16	17.8%	12.555	6	0.050
	25-31 years	75	36.2%	96	46.4%	36	17.4%			
	32-38 years	19	48.7%	8	20.5%	12	30.8%			
	>38 years	26	40.6%	30	46.9%	8	12.5%			
Education	Primary	68	50.0%	56	41.2%	12	8.8%	25.971	4	0.001
	Secondary	74	39.4%	80	42.6%	34	18.1%			
	University	18	23.7%	32	42.1%	26	34.2%			
Children	1 child	32	39.0%	26	31.7%	24	29.3%	19.792	4	0.001
	2-3 children	72	34.3%	100	47.6%	38	18.1%			
	4 and more	56	51.9%	42	38.9%	10	9.3%			
Employment state	Unemployed	116	41.7%	114	41.0%	48	17.3%	1.166	2	0.558
	Employed	44	36.1%	54	44.3%	24	19.7%			

Table 4: Association between socio-demographic characteristic and level of practice in management of fever.

		Practice level								
		Poor		Fair		Good		X^2	DF	P value
		Count	Row N %	Count	Row N %	Count	Row N %			
Parent type	Father	14	17.5%	56	70.0%	10	12.5%	1.408	2	0.495
	Mother	60	18.8%	204	63.8%	56	17.5%			
Parents age	<25 years	20	22.2%	60	66.7%	10	11.1%	7.296	6	0.294
	25-31 years	32	15.5%	135	65.2%	40	19.3%			
	32-38 years	10	25.6%	21	53.8%	8	20.5%			
	>38 years	12	18.8%	44	68.8%	8	12.5%			
Education	Primary	28	20.6%	88	64.7%	20	14.7%	11.429	4	0.022
	Secondary	42	22.3%	116	61.7%	30	16.0%			
	University	4	5.3%	56	73.7%	16	21.1%			
Children	1 child	14	17.1%	62	75.6%	6	7.3%	16.600	4	0.002
	2-3 children	42	20.0%	138	65.7%	30	14.3%			
	4 and more	18	16.7%	60	55.6%	30	27.8%			
Employment state	Unemployed	52	18.7%	186	66.9%	40	14.4%	2.993	2	0.224
	Employed	22	18.0%	74	60.7%	26	21.3%			

Discussion

More than half of parents said that the best place to measure the temperature is axillary as done in the PHCCs, this result higher than study results done in Jordan was 43.2% by Athamneh et al[8].

About 43.5% of parents used an electronic thermometer to measure the temperature may be because that it's easy to use and read than other types of thermometer.

Parents who know the correct normal and fever temperature were 45% lower than the result of Wan-Tsien Bong et al[9] study conducted in Malaysia was 49.9%.

Concerning the time need for measurement of the temperature (one minute) as usual done in the PHCCs and according to the

guidelines of the American Academia of pediatrics[6], 43% of the current study parents gave the correct answer, this was higher than parents in study conducted in Peshawar by Awalkhan et al[10] only 13% were correct.

About 92.5% of parents said that the vaccine and 82% mentioned the infection were the most common cause of fever while parents in India mentioned that infection was the most common cause of fever 64% and the vaccine 44% in the study done by Sonjana Thota et al[2].

The considering of fit and dehydration as the more sequel of fever complications higher than obtained by Maria Kelly et al. in Ireland[11].

There is no significant association between the knowledge level and the sociodemographic data of parents this agree with study done by Mohammed M Al Ateeq et al[12] in Saudi Arabia.

Majority of parents attitude toward fever management was the right lowering fever drug decided by previous advice of doctor and by asking pharmacist, this may be the cause of using a drug at their home from a previous doctor visit or take any drug needed from the pharmacy without new doctor prescription, while only 47% use previous advice of doctor in Awal khan et al[10].

Less than half of the parents thinked that the age was the parameter to decide the right dose of the fever lowering drug this may be due to the dependence on reading the package leaflet to decide the right dose which usually used a special guide for dose calculation according to age which usually easier for them to give the dose than calculated it depending on the weight, this result is similar to Athmamneh et al[8] in Jordan.

The thought of not using the antibiotic drug for their children with fever was found in more than one third of participants this disagree with Sonjana Thota et al[2] in India obtained that only 19% of parent think that they must not use antibiotics.

About half of our participants have thermometer to be used in measurement of fever, while more than half of the participants use their hand in assessment the fever this may be explained by the poor knowledge of them about the normal and fever temperature so they use their hand to evaluate the fever, while in Peshawar a study done by Awal Khan et al[10] most of parents use their hand to measure the temperature of the child.

More than three quarter of the parents used tepid water as physical method to control the fever, this result is similar to Li-Chuan Chang et al[13].

Majority of parents used paracetamol as the most common drug in treatment of child with fever these results similar to Babak Abdiniaet al[14] in Tabriz. But this result disagree with the results of Nabil Ahmed Kamal et al[15] in Kuwait where 51% of parents used paracetamol.

Most of our participants preferred the oral rout to give the fever lowering drug this result disagree with the study conducted in Jordan by Athmamneh et al[8] only 50% used oral rout.

The seeking of medical help for feverish child, parents chose more than one answer, 86.6% chose seeking help if no response to treatment during 48 hour from the beginning off ever, 69% of them when the temperature was high or the child developed other symptoms or the child age was less than 6 months, this can explained by the anxiety and worry of parents toward feverish child, while 69% of parents chose if no response to treatment, 74.4% seek help with high temperature in study by Mohammed M Al Ateeq et al[12].

In conclusions; More than half of the parents have fair level of knowledge and practice to deal with fever. While no significant association regarding knowledge we found a significant association between good level of practice with higher level of education and high parity (4 children and

more). There is a significant association found between level of attitude and third decade parents' age, higher education level and low parity.

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