



Determination' Knowledge and Home Treatment of Measles Infection by Caregivers of Children Under 5 Years

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Abstract:

Background: Fever, cough, conjunctivitis, and a generalized maculopapular rash are symptoms of measles virus (MV), an acute viral disease that is rather frequent. .

Objective: Determination caregivers' Knowledge regarding home treatment of Measles infection of children under five years .

Methodology: The research is a descriptive study carried out to achieve the stated objectives Related to caregiver' knowledge regarding nursing care for children infected with Measles and the prevalence of measles among children in pediatric healthcare Centers in AL-Nasiriya City. The study was conducted from 9 December 2024 to Research delivered on 10 March 2025 A non-probability purposive sample of 50 caregivers from the emergency unit in Nasiriyah hospitals including Mohammed Al-Moussawi Children's Hospital and Bint Al-Huda Maternity Hospital for Children. Part One: Demographic Characteristics The demographic data sheet included 7 items for parent And Part Two: Caregivers' Knowledge of Home Treatment for Measles in Children Less Than Five Years Old Questionnaire We used SPSS (Statistical Package for the Social Sciences, version 25) to analyze the data.

Results: It indicates that the patients' relatives from whom the samples were taken were in the age group (20-35) years. They were females. The majority of the sample was married. Regarding the level of education, the majority of the participants were illiterate. It showed no significant association between the parents' knowledge of the disease at ($p > 0.05$), except for their gender and level of education .

Conclusion: The age group Less than 35 years is the largest age group. Most women were married and the parents had High school graduate. the majority was Doesn't work about occupations. More than half of the caregivers had a strong understanding of measles, according to their total knowledge. (Table 3) display The measles virus was known to all fifty respondents. Thirty caregivers (or 60.0% of the total) have a solid understanding of what causes measles. They were mostly accurate in identifying high body temperature, rash, and redness of the eyes as measles symptoms .

Recommendation: Caregivers and contacts must wear face masks and gloves when entering the patient's room .Educating the patient and family prevention from the methods of transmission of the disease prevention .

Keywords: Determination, Knowledge, Measles, Ca regiver, Emergency Unit.



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Introduction:

Conjunctivitis, fever, cough, and a widespread maculopapular rash are symptoms of measles virus (MV), an acute infectious disease that is spread mostly through respiratory droplets released by an infected person's cough or sneeze [1]. Worldwide, 4% of children younger than 5 years old die from measles, even though there are effective live vaccines available [2]. A virus causes measles, a highly infectious disease. The measles virus, a paramyxovirus, is responsible for the disease. Fever, coughing, red eyes, a widespread maculopapular rash, and a runny nose are some of the symptoms. Although 90% of the population has an immune response, measles can still be transmitted from person to person through respiratory contact, which includes coming into direct or indirect contact with contaminated nasal or oral fluids. In children, the prevalence can be as high as 58% during an epidemic and as low as 10-15% in healthy individuals who live in close quarters with an infected family member or friend [3]. The World Health Organization has recommended that mothers be educated on how to manage specific diseases at home in order to reduce child mortality from febrile illnesses [4]. Although certain myths regarding the causes, symptoms, and indicators of measles persist, half of the caregivers had a low level of knowledge about the disease. A lot of times, caregivers will use dangerous home cures on their children and put off getting them to the doctor. Instead of focusing just on getting pregnant women to get their shots, prenatal, immunization, and postnatal clinics should include more information on how to recognize measles and other vaccine-preventable infections. Health education should also emphasize the need of early medical attention in preventing disease complications [5].

Methodology:

Design of the Study:

The research is a descriptive study carried out to achieve the stated objectives related to Determination caregiver ' knowledge regarding nursing care for children infected with measles

and the prevalence of measles among children in pediatric healthcare centers in AL-Nasiriya City.

Setting and Sample of the Study:

The study was conducted at pediatric hospitals in Nasiriyah City, specifically at Bint Al-Huda Hospital and Al-Moussawi Hospital. The focus was on caregiver care for children infected with measles. The sample consisted of 50 parents, selected using a non-probability purposive sampling method. Nurses in the hospitals distributed the questionnaires to the parents.

Data Collection:

All participants in the study sample were asked to fill out an Arabic-language self-administered questionnaire. With the necessary governmental approvals in hand, data gathering took place from December 25, 2024, to February 20, 2025. Around twenty to thirty minutes was needed to finish each survey.

The Study Instrument:

Part One: Demographic Characteristics

The demographic data sheet included 7 items for parents , including age, gender, education level, marital status ,your profession, Your relationship with the patient and are all your children fully vaccinated

Part Two: Questionnaire to assess Determination caregivers' knowledge regarding home treatment of measles infection in children under five years of age

This part included 5 items assessing parents knowledge regarding about hildren infected with measles, covering areas like, causes measles, symptoms, have any of your children ever had measles, how many of your children have had measles before, vaccination, did you know that your child have measles and What treatment do take at home

Statistical Analysis:

To determine the prevalence of measles among children and caregivers' knowledge regarding the management of affected children, data were analyzed using SPSS (Statistical Package for the

Social Sciences), version 25. Various methods for analyzing statistical data were utilized.

Descriptive Data Analysis:

1.Tables:

Frequencies and percentages with comparisons.

• Significant % = Frequencies / Sample size (n = 50).

2. Statistical Tables:

• Mean of score (M.S) and Standard Deviation (S.D).

Results:

Table (1): Study sample distribution based on caregiver sociodemographic variables.

	35years and above	18	36.0
Sex	Male	11	22.0
	Female	39	78.0
level of education	Don't read or write	4	8.0
	Elementary school graduate	10	20.0
	Medium school graduate	12	24.0
	High school graduate	19	38.0
	College or more	5	10.0
Occupation	Government employee	15	30.0
	Retired	2	4.0
	Free profession	4	8.0
	Doesn't work	29	58.0
Marital status	Single	2	4.0
	Married	40	80.0
	Divorced	3	6.0
	Widow	5	10.0
Relationship of caregiver to child	One parents	38	76.0
	The sister	2	4.0
	The brother	0	0.0
	Mother's sister	2	4.0
	Father's sister	0	0.0

Table 1 displays the socio-demographic characteristics of the children and caregivers, including the age group. Among the age groups

represented in the sample, 64.0% were younger than 35 years old, making it the largest. Most (78.0%) were women, (80.0%) were married,

(76.0%) were the parents of the children and (38.0%) of them had High school graduate. Regarding occupation, the majority was Doesn't work, as their percentage was estimated at 58.0 %

of the sample size. Regarding question about are all your children fully vaccinated? the majority was no , as their percentage was estimated at 56.0 %.

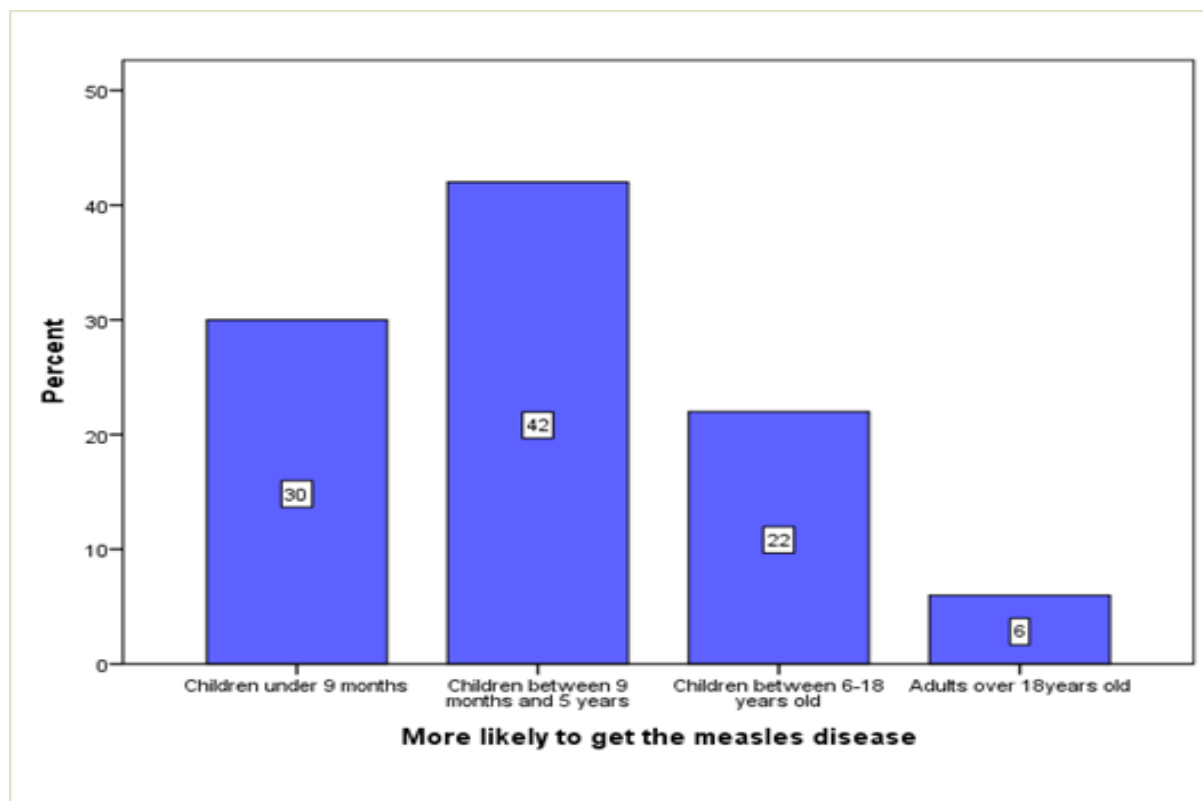


Figure 1. Caregivers' Knowledge of More likely to get the measles disease (N = 50).

Show figure 1 The mean age of the index children was 2.040 ± 0.879 , with majority of them (42.0%) being in the 9 months and 5 years age group.

Table (2): Determination Level of measles knowledge among caregivers, including their familiarity with the disease, its symptoms, and its causes.

Knowledge (N = 50)	Frequency	Percentage
Knowledge of the cause of measles		
Poor	20	40.0
Good	30	60.0
Understanding the most prominent signs and symptoms of measles		
Poor	24	48.0
Good	26	52.0
A general understanding of the measles		
Poor	21	42.0
Good	29	58.0

More over half of the caregivers (58.0%) had strong knowledge of the disease (i.e., the causes, primary symptoms, and signs of measles),

according to the overall knowledge of the disease stated in table 2.

Table (3): Distribution of study sample according to assess Causes of measles indicated by caregivers (N = 50).

Causes of measles indicated by caregivers	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Exposure to heat	23	46.0	27	54.0
Infection with organisms Microorganism viruses	30	60.0	20	40.0
Touching a patient He has measles	29	48.0	21	42.0
Mosquito bite	18	36.0	32	64.0
Inhaling polluted air	30	60.0	20	40.0
When the child suffers from malnutrition	25	50.0	30	60.0
Contaminated water or food	30	60.0	20	40.0
Dirty environment	28	56.0	22	44.0
The environment is crowded	29	58.0	21	42.0
Meeting in poorly ventilated room	18	36.0	32	64.0
Not taking measles vaccine	27	54.0	23	46.0
Seasonal changes /change the weather	18	36.0	32	64.0
The period when the child's teeth appear	22	44.0	28	56.0

(Table 3) display the measles virus was known to all fifty respondents. Sixty percent of caregivers had a strong understanding of the measles's cause, according to Table 2. The causes of measles indicated were: exposure to heat (46.0%), Infection with organisms microorganism

viruses (60.0%), touching a patient he has measles (48.0%), Mosquito bite (36.0%), Inhaling polluted air (60.0), malnutrition (50.0), Contaminated water or food (60.0), dirty environment (56.0), the environment is crowded (58.0), meeting in poorly ventilated room (36.0), not taking measles

vaccine(54.0),seasonal changes /change the teeth appear (44.0).
weather(36.0),and the period when the child's

Table (4): Caregivers' reported primary symptoms and indicators of measles (N = 50) were used to distribute studies participants.

Symptoms and signs of measles indicated by caregivers	Yes		No	
	Frequency	Percentage	Frequency	Percentage
High body temperature	45	90.0	5	10.0
Cough	20	40.0	30	60.0
Runny nose / flu	18	36.0	22	44.0
Eye redness	48	96.0	2	4.0
Rash on the body	50	100.0	0	00
Inability to eat	37	74.0	13	26.0
Vomiting	33	66.0	17	34.0
Diarrhea	38	76.0	12	24.0
Mouth ulcer	10	20.0	40	80.0
Rapid breathing	36	72.0	14	28.0
Ear discharge	4	8.0	46	92.0
Loud breathing sound	15	30.0	35	70.0
Have dry and flaky skin	38	76.0	12	24
Tongue pain / lip redness	32	64.0	18	36.0
Blurred vision	21	42.0	29	58.0
Nightmares	11	22.0	39	78.0

The majority of participants correctly identified high body temperature (90.0%), rash on the body (100.0%), and redness of the eyes (96.0%) as the key symptoms and indicators of measles, as shown in table (4). While the remainder of the signs and symptoms of measles has percent varying, as shown below: cough

(40.0),runny nose/ flu(36.0),inability to eat(74.0),vomiting (66.0),diarrhea(76.0), Mouth ulcer(20.0),rapid breathing(72.0),ear discharge(8.0),Loud breathing sound(30.0),dry and flaky skin(76.0),Tongue pain / lip redness (64.0) ,blurred vision(42.0)and nightmares (22.0) .

Table (5): Home measles treatments and remedies used by caretakers of children less than five years old (N = 47).

Treatment do take at home	Yes		No	
	Frequency	Percentage	Frequency	Percentage
I was given an herbal drink orally	21	42.0	26	52.0
I applied compresses	40	80.0	7	14.0
I gave paracetamol	38	76.0	9	18.0
I was given medications malaria	47	94.0	0	0.0
I was given eye drops	31	62.0	16	32.0
I was given a drink herbal for bathing	24	48.0	23	46.0
I gave you a lotion for the body	40	80.0	7	14.0
I gave oil palms on the body	23	46.0	24	48.0
I was given antibiotics for treatment infections	42	84.0	5	10.0

Present Table 5 in nearly all of the 47 caregivers whose children contracted measles were able to treat their children at home, with 96.0% also consulting with medical professionals. Oral herbal drinks (42.0%), bath herbal drinks (48.0%), compresses (80.0%), and palm oil

(46.0%) were among the home therapies that were used. Regarding treatment from health facilities medications malaria (94.0), paracetamol (76.0), lotion for the body (80.0), antibiotics for treatment infections (84.0).

Table (6): Relationship between carers' socio-demographic characteristics and their level of measles knowledge.

Socio demographic	Overall knowledge about measles	
	*C.C. test	P-Value
Age	0.13	0.007
Sex	0.51	0.005
level of education	0.25	0.000
Occupation	0.72	0.001
Marital status	0.67	0.006
Relationship of caregiver to child	0.43	0.004

*Contingency coefficient

**S= significant (p-value ≤ 0.05)

This table (6) showed that there is no significant relationship regarding (age, sex, and marital status)

Discussion:

The study's results corroborate those of the mean caregiver age, which was less than 35 years old, as indicated in table (1), which displays the distribution of the study's sample according to the socio-demographic of the mother ⁶. The gender of caregivers, most (78.0%) were women, this study agrees with results showing most (96.3%) were women ⁷.

Regarding level of education (38.0%) of them had high school graduate, this study agrees with showing that 299 (58.7%) of them had secondary education ⁸. The marital status of respondents (80.0%) were married, the study agrees with showing that 86.1% were married of the sample ⁹. Relationship of caregiver to child shows (76.0%) were the parents of the children, this study agrees with results showing they were the parents of the children ¹⁰. More than half (58.0%) of the

caregivers who participated in the study had good knowledge of measles, including its causes, main symptoms, and signs, according to the caregivers' overall knowledge of the disease (table 2). This study concurs with the findings of the study ¹¹

Show (Table 3) The causes of measles indicated were: exposure to heat (46.0%), Infection with organisms microorganism viruses (60.0%), touching a patient he has measles (48.0%), Mosquito bite (36.0%), Inhaling polluted air (60.0), malnutrition (50.0), Contaminated water or food (60.0), dirty environment (56.0), the environment is crowded (58.0), meeting in poorly ventilated room (36.0), not taking measles vaccine (54.0), seasonal changes /change the weather (36.0), and the period when the child's teeth appear (44.0). This study supports the findings of Lack of measles vaccination (79.8%), contact with an infected person (72.9%), heat exposure (46.0%), and malnourishment (41.7%) were the causes of measles ¹². Regarding the main symptoms and signs of measles in table (4), Majority of them correctly indicated that High

body temperature (90.0%), rash on the body(100.0%) ,redness of eyes (96.0%).While the remainder of the signs and symptoms of measles has percent varying, as shown below: cough (40.0),runny nose/ flu(36.0),inability to eat(74.0),vomiting (66.0),diarrhea(76.0), Mouth ulcer(20.0),rapid breathing(72.0),ear discharge(8.0),Loud breathing sound(30.0),dry and flaky skin(76.0),Tongue pain / lip redness (64.0) ,blurred vision(42.0)and nightmares (22.0) , this study's findings are consistent with The majority of them accurately identified the primary symptoms of measles as being elevated fever (98.6%), eye redness (93.5%), and body rashes (93.3%)¹³

Present Table 5 in the 47 caregivers whose children contracted measles, 96.0% gave treatment at home in addition to what was prescribed at the doctor's office. Domestic remedies included herbal drinks taken orally(42.0%), herbal bath drinks (48.0%), compresses (80.0%), and palm oil (46.0%). Caregivers whose children had measles were found to administer home treatment by 253 (91.3%) while only 24 (8.7%) opted for treatment at a health facility. Medication options included paracetamol (76.0), antibiotics for treatment infections (84.0), lotion for the body (80.0), and malaria (94.0). Palm oil (81.8%), palm wine (77.5%), antibiotics (75.1%), and tepid sponge (68.4%), among other home therapies, were also used¹⁴.

Overall knowledge about measles was not significantly related to age, sex, or marital status, as shown in table (6) with P values of less than or equal to 0.007 and 0.006, respectively. The results of this study are in agreement with those of previous research showing a highly significant association between education level and occupation. When it came to caregivers treating measles at home, there was no correlation between socio-demographic factors and effectiveness. Although there was no statistically significant correlation, a greater proportion of caregivers with low measles knowledge (93.2%)

compared to those with strong knowledge (89.9%) administered home treatment¹⁵.

Conclusions:

the demographic that falls inside for the most part, people fall into the "less than 35" categories. Among the women, 38.0% had completed high school, and the majority were married and the primary breadwinners. Jobs were the most common topic of discussion. All fifty people who took the survey were aware of the measles virus. There is a highly significant link between degree of education, occupation, caregiver-child relationship, and overall measles knowledge ($P \leq 0.000$, $P \leq 0.001$, and $P \leq 0.004$). Out of the caregivers surveyed, 30 (60.0%) indicated good understanding of the measles' causes.

Recommendation

Caregivers and contacts must wear face masks and gloves when entering the patient's room. Emphasizing the importance of vaccination as a basic preventive measure against measles. Training courses for nurses to teach mothers how to prevent measles so that they do not infect others with measles. Encourage them to talk to their doctor if they have any questions or concerns .Provide reliable educational resources about measles and infection prevention

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