

Mother's Perception toward their Preschoolers with Recurrent Urinary Tract Infection

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Abstract

Background: Urinary tract Infection (UTI) is the second most common bacterial infection in children, only after otitis media, affecting round 1.7% of boys and 8.4% within their first six years of life **Objective:** this study aimed to identify mother's perception toward recurrent urinary tract infection **Methodology:** Design: Cross-sectional design. Setting: Data were collected from AL Zahraa Teaching Hospital. Sample: A non-probability (purposive) sample consisted of (120) mothers **Results:** The highest percentages for the age categories were 47.5% of mothers (21-28 years old). Although the residence with the highest percentage of mothers (73.3%) had rural area and the educational level, the highest percentage (32.5%) had primary school. overall assessment of mothers' perceptions toward their preschool-aged children who have frequent urinary tract infections as accepted with (1.97) mean of score **Conclusion:** The results of this study indicate that mothers have accepted perception about recurrent urinary tract infections in preschoolers **Recommendation:** Health education programs should be provided to mothers to increase their knowledge and understanding of UTI.

Keywords: Perception, Preschoolers, Recurrent Urinary Tract Infection.

Introduction

Urinary tract Infection (UTI) is the second most common bacterial infection in children, only after otitis media, affecting round 1.7% of boys and 8.4% within their first six years of life. A third to one half of affected children will suffer from at least one recurrence (Petcu, et al., 2021; Seyezaadeh, et al., 2021).

The significance of UTIs in children lies in their potential to cause serious complications such as kidney damage, sepsis, and even death if left untreated. UTIs can also cause pain, discomfort, and inconvenience for the child, which can lead to missed school days and reduced quality of life (Ahmadi, et al., 2020; and Leung, et al., 2019)

Moreover, recurrent UTIs can lead to chronic kidney disease, which is a significant cause of morbidity and mortality worldwide. UTIs can also have economic implications, with costs related to healthcare services, medications, and time off work for caregivers (Ginsburg et al., 2017).

Recurrent urinary tract infections (UTIs) can have a significant impact on preschool-aged children. UTIs are caused by bacteria entering the urinary tract and can cause symptoms such as frequent urination, pain or burning during urination, and fever. (Kaufman, et al., 2019; and Karmazyn et al., 2017).

Mother's perception about a child with a urinary tract infection (UTI) can vary depending on the mother's knowledge and experience with the condition, as well as the severity of the infection and the child's symptoms. Some mothers may recognize the signs

and symptoms of a UTI and seek prompt medical attention, while others may not be aware of the condition or may delay seeking treatment (Chen et al., 2016).

Methodology

Cross-sectional design was used to achieved objective of the study at AL Zahraa Teaching Hospital; the study has been carried out during the period July 14th, 2022 to March 13th 2023. A non-probability (purposive) sample consisted of (120) mothers. The criteria for the selection of the study sample were children aged five years and under, all children who diagnosed of recurrent urinary tract infection. The final study instrument consists of two parts: **Part I:** Socio-demographic data. This part is concerned with the collection of basic demographic data obtained from the nurses by self-administration sheet and interview such as (age, residency, level of education, occupation, monthly income, type of family, number of children, period of disease, the number of disease occurrence in child).

Part II: Mothers' perception about recurrent urinary tract infection. It consists of four **domains:** (The concept of disease and its cause and consist of (5) items. Symptom of disease and consist of (3) items. Complication of disease and consist of (2) items. Treatment of disease and consist of (4) items).

The data analyzed with Statistical Package of Social Sciences (SPSS) version (24). The following statistical data analysis approaches used in order to analyze

and evaluate the results of the study: (Frequency, Percentage, Mean test).

Results

Table (1): Distribution of Socio-Demographic Characteristic for the Study Sample (N=120)

Variables	categories	Frequency	Percent
Age Group	<= 20	10	8.3
	21 - 28	57	47.5
	29 - 36	30	25.0
	37 - 44	18	15.0
	45 and more	5	4.2
	Total	120	100
Mean + Sd.		28.28 ± 6.301	
Residency	Rural	32	26.7
	Urban	88	73.3
	Total	120	100
Level of education	Not read and write	29	24.2
	Read and write	22	18.3
	Primary school graduated	39	32.5
	Intermediate school graduated	18	15.0
	Secondary school graduated	2	1.7
	Institute and above	10	8.3
Total		120	100
Occupation	Employed	14	11.7
	Housewife	106	88.3
	Total	120	100
Monthly Income	Sufficient	48	40.0
	Barely Sufficient	63	52.5
	Insufficient	9	7.5
	Total	120	100
Types of Family	Nuclear	35	29.2
	Extended	85	70.8
Number of Children (years)	<= 3	72	60.0
	4 - 7	48	40.0
	Total	120	100
	Mean + Sd.	3.25 ± 1.41	
Disease duration (years)	<= 1	73	60.8
	2 - 3	45	37.5
	4+	2	1.7
	Total	120	100
Mean + Sd.		1.46 ± 0.65	
Disease occurrence (years)	<= 2	36	30.0
	3 - 5	78	65.0
	6+	6	5.0
	Total	120	100
	Mean + Sd.	3.23 ± 1.13	

Table (1) According to the demographic results, the highest percentages for the age categories were 47.5% of mothers (21-28 years old). Although the residence with the highest percentage of mothers (73.3%) had urban area and the educational level, the highest percentage (32.5%) had primary school, the majority of participants (88.3%) were housewives. Furthermore, the results of the monthly income

survey revealed that the majority of participants (52.5%) had barely sufficient income. Furthermore, the majority of the study sample (70.8%) belonged to extended families; the highest percentage of the study sample (60.0%) had three or fewer children; the disease duration was equal to or less than one year; and the disease occurrence (3-5) was (65.0 %).

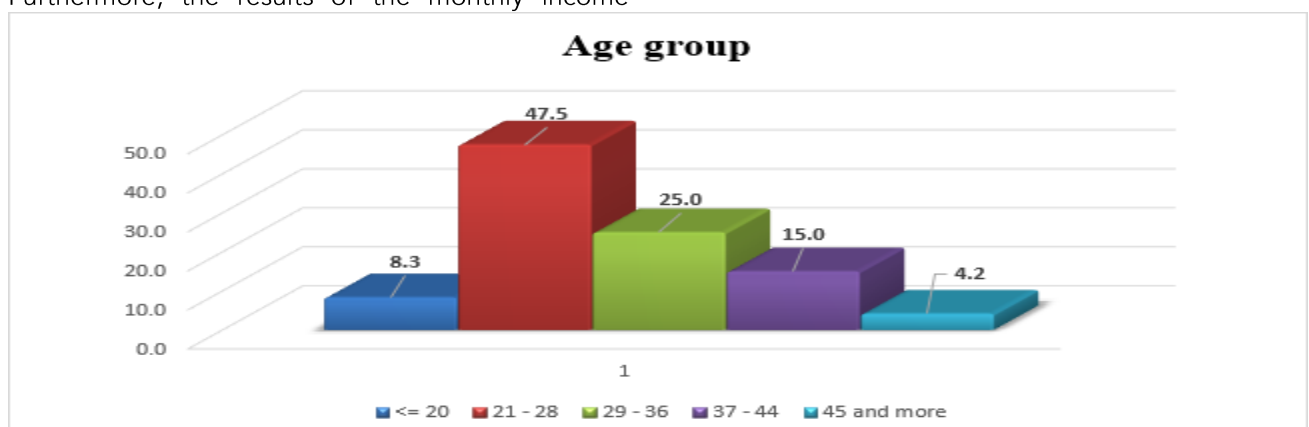


Figure (1): Mother age group

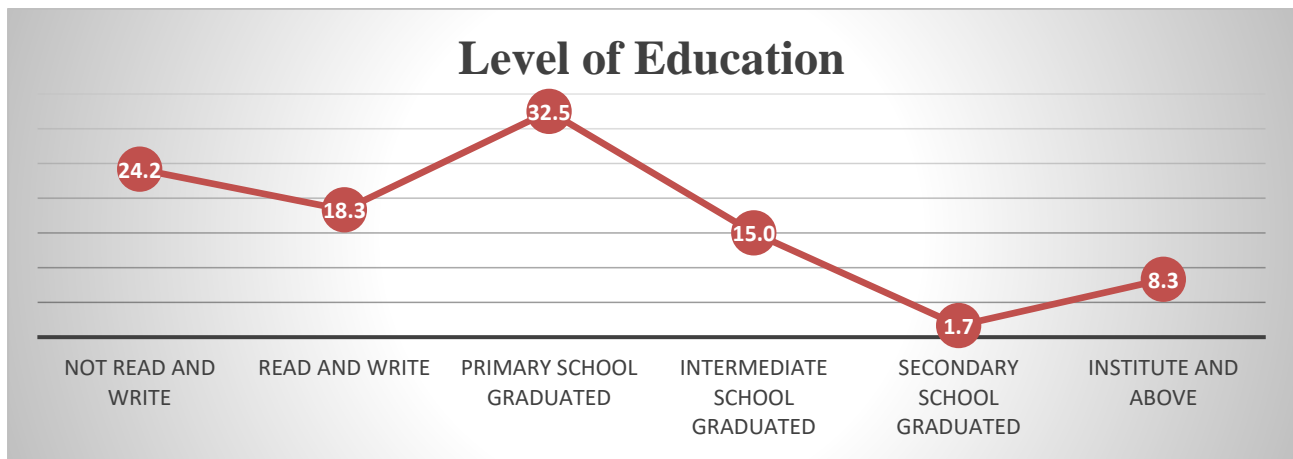


Figure (2): Mother education

Table (2): Summary statistics of mothers' perceptions toward their preschoolers affected by recurrent urinary tract infection domains.

Perception Domains	Level of Measurement	Frequency	Percent	Ms.	Sd.	Assess.
Causes of disease	Disagree	49	40.8	1.89	0.47	Accepted
	Uncertain	44	36.7			
	Agree	27	22.5			
Symptom of disease	Disagree	23	19.2	2.0229	0.45605	Accepted
	Uncertain	69	57.5			
	Agree	28	23.3			
Complications of disease	Disagree	70	58.3	1.6583	0.65138	Accepted
	Uncertain	30	25.0			
	Agree	20	16.7			
Treatment of disease	Disagree	15	12.5	2.1250	0.43313	Accepted
	Uncertain	69	57.5			
	Agree	36	30.0			

N (120), poor (mean of score (1-1.66), accepted (mean of score 1.67-2.33), good (mean of score 2.34 and more), cut off point (0.66)

Table (2) shows that the mother's answers to all of the questions about the repeated urinary tract infection were accepted.

Table (3): Overall Assessment of Mothers' Perceptions of Their Preschoolers Affected by Recurrent Urinary Tract Infection

Perception (Overall Assessment)	Level of Measurement	Frequency	Percent	MS	S.D	Assessment
Perception (Overall Assessment)	Disagree	21	17.5	1.97	0.35	Accepted
	Uncertain	77	64.2			
	Agree	22	18.3			

The table above shows the overall assessment of children who have frequent urinary tract infections as mothers' perceptions toward their preschool-aged accepted.

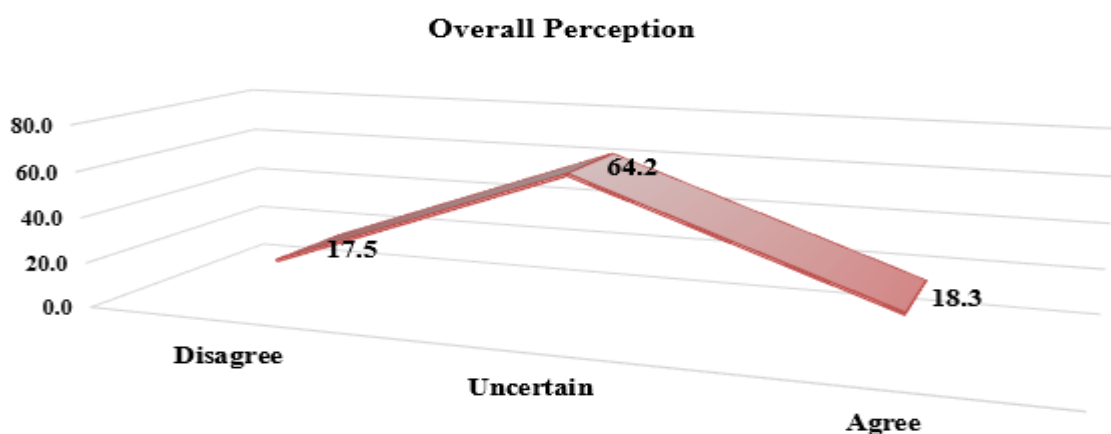


Figure (3): Overall Perception

Discussion

The current study used a descriptive design to test the mother's perception and follow-up management toward their preschoolers effected with recurrent urinary tract infection. The sample consists of (120) mother.

Analysis of mothers' demographic characteristics was determined. In regard to the study findings the greater percentage of study subjects between the age group of (21-28) years old, this study is matched with the finding of the Seyerzadeh et al., (2021). who conducted article related to the Assessment of Parents' Awareness of Urinary Tract Infections (UTIs) in Infants and Children and Related Demographic Factors, which revealed that the majority of study results were the age group of (20-30) years old.

Regarding to the residency the study results showed that highest percentage of study subjects were lived in an urban area. This is in an agreement with the study carried out by Selamat et al., (2020) who reported that the majority of the respondents are living in urban area (95.6%) compared to only (4.4%) from rural area.

Concerning the educational level, most of the subjects were primary school graduated. Depend on the our opinion that the low education can lead to decrease in the perception and follow-up mother's toward recurrent urinary tract infection. This finding is in agreement with the Seyerzadeh et al., (2021) who represent that most participants had an education level of primary school.

According to subjects occupation the researcher reported that the majority of study subjects occupation were housewife, this finding supported with the Ahmadi et al., (2020) this article that represent the highest percentage of study sample were a house wif.

However the results of the study reveal that the majority of study subjects economic status were barely sufficient income and this finding is highly agree with Bazargani et al., (2022) whom reported that the moderate income participants.

Regarding to the types of family, the study results showed that highest percentage of study subjects were extended families. This is in an disagreement with the study carried out by Abd Elfatah, et al., (2021) who reported that the more than half of the studied women (53.6%) had nuclear family.

According to subjects number of children, the researcher reported that the majority of study subjects number of children were three children, this finding supported with the Fazel et al., (2019) article that represent the highest percentage of study sample were a three children.

Related to the disease duration, the results show that the most subjects of the study were equal or less than one year, however the study reveals that the majority of study subjects were disease occurrence(3-5) years, this study is matched with the finding of the Campbell et al., (2021), which revealed that the most of study results were disease duration less than one

year and frequency of urinary tract infection more than two time per year.

Table (2) shows that the mother's answers to all of the questions about the repeated urinary tract infection were accepted.

It is important for mothers to have accurate information about urinary tract infections (UTIs) and to seek prompt medical attention if they suspect their child may have an infection. The mother's answers to all of the questions about the repeated UTI can provide valuable information to healthcare professionals in order to properly diagnose and treat the condition.

When a child has a repeated UTI, it's important for the healthcare professional to gather as much information as possible about the child's symptoms and medical history, as well as any potential risk factors for the infection. The mother's answers to questions about the child's symptoms, such as frequency and urgency of urination, pain or discomfort while urinating, and any other symptoms, can help healthcare professionals determine the cause of the infection and the appropriate course of treatment.

The mother's answers to all of the questions about a repeated urinary tract infection (UTI) can provide important information for healthcare providers in terms of understanding the child's symptoms, the mother's concerns and level of knowledge about the condition, and the potential impact of the infection on the child and the family (Alsibai et al., 2018).

Mother's perception and response to a child with repeated urinary tract infections (UTIs) can vary depending on the mother's knowledge and experience with the condition, as well as the severity of the infections and the child's symptoms (Almatrafi et al., 2022; and Garcia et al., 2018).

According to a study conducted by Al-Awadhi et al. (2015), mothers' perception of recurrent urinary tract infections (UTIs) in their children was found to be moderate. The study was conducted in Kuwait, and a total of 314 mothers were included in the study. The mothers were asked to complete a questionnaire which assessed their knowledge, attitudes, and practices related to UTIs in children.

A study conducted by Farah et al. (2018) found that mothers' perception about recurrent UTIs in children can be moderate. The study was conducted in Pakistan and included 160 mothers of children with a history of UTIs. The researchers used a questionnaire to assess the mothers' knowledge, attitudes, and practices related to UTIs in children. The study found that although most mothers had heard about UTIs, their knowledge about the causes, symptoms, and treatment of UTIs was limited.

Overall, the study suggests that mothers' perception about recurrent UTIs in children can be moderate. However, there is a need for further education and awareness programs to improve mothers' knowledge about UTIs and their potential complications.

Conclusions

The results of this study indicate that mothers have

accepted perception about recurrent urinary tract infections in preschoolers.

Recommendations

Based on the findings of this study, the following recommendations were suggested: Health education programs should be provided to mothers to increase their knowledge and understanding of UTI, its causes, symptoms, and treatments. This would enable mothers to take appropriate actions and make informed decisions.

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