

Mothers' Knowledge and Practices Regarding their Children with Acute Infective Conjunctivitis

Wafaa H. Abd El- Aziz, Ebtisam M. Abd EL-Aal, Amina A. Mahmoud

Abstract: Acute infective conjunctivitis is a common worldwide eye disease; especially among children. The purpose of this study was to assess mothers' knowledge and practices for their children with acute infective conjunctivitis. Design: A descriptive research design was used in the study. Setting: This study was conducted in Ophthalmic Outpatient Clinics at Benha Ophthalmic Hospital. The Sample: Simple random sample which included 25 % of children with acute infective conjunctivitis who accompanied with their mothers in the above mentioned setting. The total sample included 250 children. Instrument: An interview questionnaire was used to assess: Social characteristics of children, characteristics of mothers, mothers' knowledge and practices regarding their children with acute infective conjunctivitis. Results: 68% of mother's had poor total knowledge score, 14.8% of mother's had satisfactory total practices scores regarding care of their children with acute infective conjunctivitis. Conclusion: there were a positive significant correlation between mothers' total knowledge and practices scores regarding their children with acute infective conjunctivitis. Recommendation: Health educational program should be developed and implemented for mothers to improve and update them with the most current information about the disease and practices.

Key word: *Acute Infective Conjunctivitis, Children, Mothers knowledge and practices.*

Introduction

In general practice 2-5% of all consultations concern the eye. Infective conjunctivitis accounts for around 35% of all eye problems presenting in general practice, 13-14 cases per 1,000 per year. Estimates of the proportion of infective conjunctivitis that is bacterial vary widely between children (Lowth, 2017).

Conjunctivitis is a general term which refers to a diverse group of diseases that occur worldwide and affect all ages, all social strata, and both genders. It is an inflammation

of the conjunctiva (the thin transparent layer of tissue that lines the inner surface of the eyelid and covers the white part of the eye), often called "pink eye". Acute infective conjunctivitis is a common eye disease, especially among children. It may affect one or both eyes. While conjunctivitis is usually a minor eye infection sometimes it can develop into serious problem (American Optometric Association, 2017).

Community Health Nurse (CHN) plays an important role regarding prevention of

conjunctivitis through providing health education for the mothers about meaning, causes, sign& symptoms, contributing factors, preventive measures and management of acute infective conjunctivitis. CHN should assist in reducing the impact of the disease that has already occurred through early detection and prompt treatment of the disease to slow it's progress, encouraging personal strategies to prevent recurrence, and to return children to their original health and function to prevent long- term problems, also should assist in identifying family with community resources that will promote health maintenance (Liang et al., 2016)

Purpose of the study

The purpose of the study was to assess mothers' knowledge and practices regarding care of their children with acute infective conjunctivitis

Research question:

- 1) To what extent do mothers have knowledge and practices regarding care of their children with acute infective conjunctivitis?
- 2) Is there a relation between mothers 'knowledge and their practices regarding care of their children with acute infective conjunctivitis?

Ethical consideration:

All ethical issues were assured; oral consent has been obtained from each mother before conducting the interview and given them a brief orientation to the purpose of the study. They were also reassured that all information gathered would be treated confidentially and used only for the purpose of the study. The mothers had right to withdraw from the study at any time without giving any reasons.

Methods

1) Research design:

Descriptive research design was used to carry out this study.

Instruments:

An interviewing questionnaire was developed by the researcher to assess the following parts:

Part I: social characteristics of mothers which included five items about age, educational level, occupation, residence and family monthly income and social characteristics of their children included seven items about age, sex, number of siblings, the child going to nursery school, child ranking between his siblings and child previous infection with acute infective conjunctivitis.

Part II: mother's knowledge about conjunctivitis, it included seven items divided into 11 questions about meaning, types, causes, risk factor, symptoms, complication,

possibility of disease chronicity, preventive measures, management, treatment and source of information.

Scoring system:

Complete	2
Incomplete	1
Don't know	0

Total Scoring system:

Good	>75 %
Average	50 – 75 %
Poor	< 50 %.

Part III: mother's reported practices regarding care of their children with acute infective conjunctivitis it included three main items divided into 18 questions as follows 10 for personal hygiene practices, 4 for dealing with child eye secretion and 4 for child care during disease period.

Scoring system:

Done correctly	2
Done incorrectly	1
Done	0

Total Scoring system:

Satisfactory	>65 %
Unsatisfactory	< 65 %

2) Setting:

The present study was conducted at Outpatient Clinics at Benha Ophthalmic Hospital. The investigator chose this hospital because outpatient clinics were receiving a large number of children with acute infective conjunctivitis daily.

3) Sampling:

Simple random sample of the children with acute infective conjunctivitis accompanied with their mothers attended to the previously mentioned setting in a period of six months from the beginning of December 2016 to the end of May 2017. The total number of children diagnosed with acute infective conjunctivitis in the last year attended to Outpatient Clinics at Benha Ophthalmic Hospital was reached to 1000 children. The total number of the sample was (250 children) were chosen according to the following criteria: age from 2 to 6 years and diagnosed with acute infective conjunctivitis.

Validity

Content validity of the instruments was done by five experts in community health nursing department (5 professors). Necessary modifications were done.

Pilot Study:

The pilot study was conducted for 10% (25 children and their mothers). The pilot study was aimed to assess the tool clarity, simplicity, applicability and time needed to

fill each sheet, completing the sheet consumed about 30 minutes. Modifications were done, so the pilot study sample were included to the total sample of the study.

Procedure:

Preparation of the study design and data collection tool based on reviewing current, past, local and international related literature about various aspects of acute infective conjunctivitis disease and its prevention by using periodicals books, journals and internet search to construct the tool. It lasts six months from the beginning of December 2016 to the end of May 2017.

Data was collected throughout six months throughout the period from the beginning of December 2016 to the end of May 2017. The investigator visited Outpatient Clinics at Benha Ophthalmic Hospital from 9 am to 12 am, three days per week (Saturdays, Mondays and Wednesdays) to collect data from mothers of children with acute infective conjunctivitis with distributed instruction guideline about the disease to improve their awareness according needs. The average time needed for the sheet was around 30-40/minutes, depending on the responses of the mothers.

Instructional guideline: Illustrated booklet guideline was distributed to mothers included introduction, anatomy of eye & normal

conjunctiva, definition of acute infective conjunctivitis, types, causes, signs & symptoms, risk factor, complication, preventive measures about care for their children.

Approval:

An official permission letter was obtained from the Dean of Faculty of Nursing to the director of Benha Ophthalmic Hospital where the present study was conducted with explanation the aim of the study, title and objectives of the study to obtain their cooperation and communication.

Statistical analysis:

All data collected were organized, tabulated and analyzed by using Statistical Package for Social Science (20 version), which was used frequencies and percentages for qualitative descriptive data, and χ^2 was used for relation tests, and mean and standard deviation was used for quantitative data, correlation test (r) was used for correlation analysis and degree of significance was identified.

P > 0.05 Not significant
P > 0.05 Significant
P > 0.05 Highly significant.

Results:

Table (1): It was clear that 48% of the studied mothers aged < 20 years with mean age were 29.1±6.08, while 44.4 % of them weren't read and write. Regarding occupation; 51.6% of mothers were

employed. 74.4% living in rural areas, and 45.6% of them had enough monthly income.

Table (2): It was clear that; 28% of the studied children aged 2 years with mean age 3.75 ± 1.20 . 56% of them were male. 55.2 of them had 3- 4 siblings, 60.8% of them were gone to nursery school, 35.2% of them were the oldest children between his siblings and 33.2% of them have previous affection with acute infective conjunctivitis.

Table (3): Shows that; 56.8% of the studied mothers had correct complete knowledge regarding sign and symptoms of acute infective conjunctivitis, while 48.4%, 47.2% had correct incomplete knowledge regarding management, causes and preventive measures respectively and 72.0%, 68.4%, 60%, 52% and 38.8% had incorrect knowledge regarding chronicity of the disease, complications, types, treatment and meaning respectively.

Table (4): Shows that; 76.4% and 73.2% of mothers wash their hands continuously and give the prescribed treatment according to doctor instructions regularly respectively, while 91.6%, 80%, 68.4%, 64% and 63.2%, 56.8%, 54.8% and 49.6% of them weren't use specific tools for their children as towels and eye dropper, change pillow cases daily, put cool compresses to remove swelling in the morning, put warm compresses to eyes in the morning to remove discharge and weren't clean the child's eyes with clean cotton from

the inside to out in one direction, use clean cotton for each eye and clean towels, weren't avoid their children from rubbing and touching their eyes with their hands and wash pillow cases with hot water respectively.

Table (5): Shows that; 100% of mothers observe the color of child's eye secretions regularly, while 58.4%, 48.8% and 47.2% of them weren't use clean towels while child eye drying every time, remove discharge with warm water every 6 hours and weren't wash child eyes continuously every 6 hours respectively.

Table (6): Shows that; 88.4% and 43.6% of the studied mothers were had attention to clean child's eyes continuously and keep the child away from chemicals substances, while 46.4% and 45.6% of them weren't use special tool for their children as towels and dropper and weren't keep the child away from source of dust and smoke respectively.

Figure (1): Percentage distribution of the studied mother's total knowledge score regarding care of their children with acute infective conjunctivitis (n= 250).

Figure (2): Percentage distribution of the studied mothers' total practices score regarding care of their children with acute infective conjunctivitis (n=250).

Table (7): Shows that; there were positive significant correlations between the studied mothers' total knowledge and practices

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scores regarding their children with acute infective conjunctivitis (P<0.001)

Table (1): Frequency distribution of the studied mothers regarding to their social characteristics (n=250)

Social characteristics	No.	%
Age/ years		
<20	120	48.0
20-	89	35.6
30-	21	8.4
40+	20	8.0
X± SD	29.1±6.08	
Educational level		
Not read and write	111	44.5
Primary Education	41	16.4
Secondary Education	35	4.0
University Education	63	25.2
Occupation		
Employed	129	51.6
House wife	121	48.4
Residence place		
Rural	186	74.4
Urban	64	25.6
Family monthly income		
Enough and saving	39	15.6
Enough only	114	45.6
Not Enough	97	38.8

Table (2): Frequency distribution of the studied children regarding to their social characteristics (n=250).

Social characteristics	No.	%
Age/ years		
2-	70	28.0
3-	61	24.4
4-	58	23.2
5-6 years	61	24.4
X± SD	3.75±1.20	
Sex		
Male	140	56.0
Female	110	44.0
Number of siblings		
<3	100	40.0
3-4	138	55.2
5+	12	4.8
The child going to nursery school (yes)	152	60.8
Ranking of the child between his siblings		
The oldest	88	35.2
The middle	80	32.0
The youngest	82	32.8
The child previous affection with acute infective conjunctivitis (yes)	83	33.2

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Table (3): Frequency distribution of the studied mothers' knowledge regarding acute infective conjunctivitis (n= 250)

Mothers' knowledge	Correct& Complete		Correct& Incomplete		Incorrect/ Don't know	
	No.	%	No	%	No.	%
Meaning	59	23.6	94	37.6	97	38.8
Types	42	16.8	58	23.2	150	60.0
Causes	63	25.2	118	47.2	69	27.6
Sign and symptoms	142	56.8	101	40.4	7	2.8
Complications	34	13.6	45	18.0	171	68.4
The disease become chronic	70	28.0	0	0.0	180	72.0
Preventive measures	101	40.4	118	47.2	31	12.4
Management	61	24.0	121	48.0	70	28.0
Treatment	42	16.8	78	31.2	130	52.0

Table (4): Frequency distribution of the studied mothers' personal hygiene practices regarding care of their children with acute infective conjunctivitis. (n=250)

Personal hygiene practices	Done regularly		Done irregularly		Not done	
	No.	%	No.	%	No.	%
Wash hands continuously	191	76.4	43	17.2	16	6.4
Clean the eye with clean cotton from the inside to out in one direction	53	21.2	39	15.6	158	63.2
Use clean cotton for each eye and clean towels	64	25.6	44	17.6	142	56.8
Avoid rubbing and touch the eye with hands	27	10.8	86	34.4	137	54.8
Put warm compresses to eyes in the morning to remove discharge	37	14.8	53	21.2	160	64.0
Put cool compresses to remove swelling in the morning	33	13.2	46	18.4	171	68.4
Change pillow cases daily	26	10.4	24	9.6	200	80.0
Wash pillow cases with hot water	12	4.8	10	4.0	228	49.6
Use specific tools for the child as towels and eye dropper	36	14.4	90	36.0	124	91.6
Give the prescribed treatment according to doctor instructions	183	73.2	55	12	22.0	4.8

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Table (5): Frequency distribution of the studied mothers practices regarding dealing with eye secretion (n=250).

Dealing with eye secretion practices	Done regularly		Done irregularly		Not done	
	No.	%	No.	%	No.	%
Observe the color of eye secretions	250	100	0	0.0	0	0.0
Remove discharge with warm water/ 6 hours	41	16.4	87	34.8	122	48.8
Wash eyes continuously/ 4 hours	56	22.4	76	30.4	118	47.2
Use clean towels while eye drying/ every time	10	4.0	94	37.6	146	58.4

Table (6): Frequency distribution of the studied mothers' practices regarding child care during illness (n=250).

Child care during illness practices	Done regularly		Done irregularly		Not done	
	No.	%	No.	%	No.	%
Attention to clean the eyes continuously	221	88.4	25	10.0	4	1.6
Use special tool for child as towels and dropper	35	14.0	99	39.6	116	46.4
Keep the child away from source of dust and smoke	58	23.2	78	31.2	114	45.6
Keep the child away from chemicals substances	109	43.6	45	18.0	96	38.4

Figure (1): Percentage distribution of the studied mother's total knowledge score regarding acute infective conjunctivitis (n= 250).

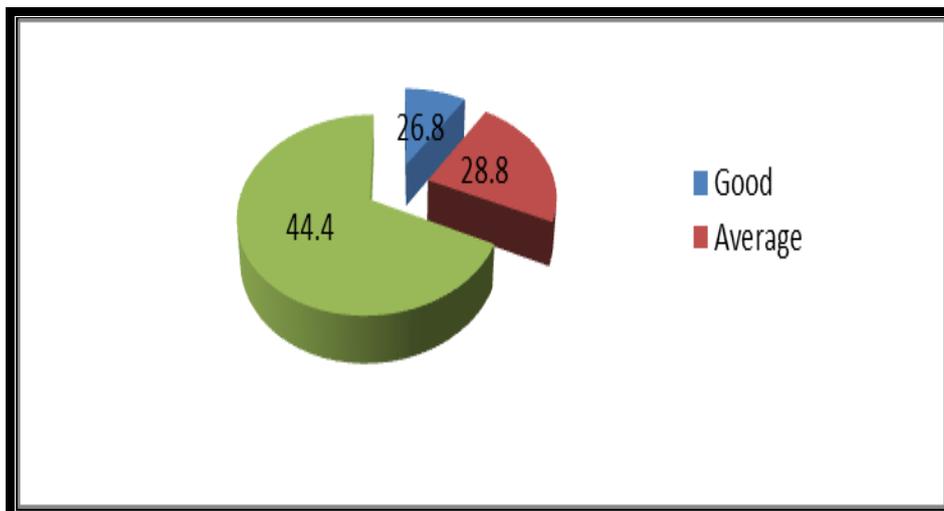


Figure (2): Percentage distribution of the studied mothers' total practices score regarding their children with acute infective conjunctivitis (n=250).

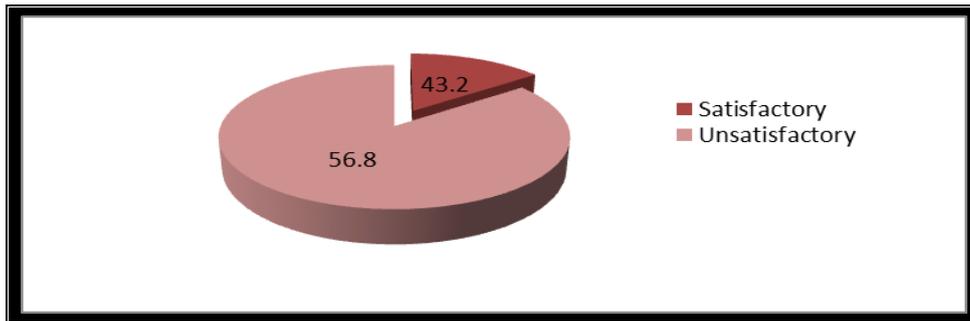


Table (7): Correlation between mothers' total knowledge and practices score regarding their children with acute infective conjunctivitis (n= 250).

Total Practices Scores	Total Knowledge Scores	
	r	p-value
	0.58	0.000**

Discussion

Acute infective conjunctivitis is one of the most frequently ocular disorder in children and the most frequent ophthalmic complaint seen in emergency departments all over the world accounting for an estimated 1% to 4% of visits, it reported that more than half of these cases in children occur before age of six years especially in day care and school settings, it can develop a more serious problem because it is highly contagious, some germs being capable of spreading into and damaging the cornea and the main parts of the child eye (Hodge & Lawless, 2017).

Regarding social characteristics of the studied mothers of children with acute infective conjunctivitis (Table 1); it was clear that slightly less than half of mothers aged < 20 years with mean age were 29.1±6.08. This finding in the same line with Yu, (2016) who studied Differential Effects of Young Maternal Age on Child Growth, Tulane University, New Orleans, USA and founded that majority of mothers in African countries their maternal age from 15- 19 or 15- 19 years.

As regards mothers' educational level; the study result showed that; around half of them weren't read and writes, this finding agreed

with Mafwiri, (2009) who studied A pilot study to evaluate incorporating eye care for children into reproductive and child health services in Dar-es- Salaam, Tanzania: A historical comparison study and stated that; half of the studied sample were illiterate. This might be due to illiterate mother usually found difficulty to understand the nature of disease and to apply good management strategy of treatment also education strengthens mothers care of their children and creating healthy environment.

Regarding to mothers' occupation and family monthly income, the present study revealed that; more than half of them were employed and about half had enough family monthly income, this finding in the same line with Aronson & Shope, (2009) who mentioned that; half of the studied sample were employed and had enough family monthly income.

Concerning mothers' residence place the present study showed that; about three quarter (74.4%) of them were living in rural area, this finding in the same line with El moselhy et al., (2011) who stated that; three quarter of mothers from rural areas. This might be due to the community health

services decreased in rural area and illiteracy was common.

Regarding to social characteristics of the studied children (Table 2); the present study showed that; the sample consisted of 250 children their age ranged from 2 to 6 years with mean \pm SD (3.75 \pm 1.20). Slightly more than quarter of them were aged two years, this result agreed with Stan & Block, (2011) who studied Pediatric Acute Bacterial Conjunctivitis: An Update, Bardstown, Kentucky, and mentioned that; quarter of the studied children had conjunctivitis at age of two years.

The present study also showed that; more than half of the studied children were male this finding in the same line with Oladigbolu, (2017) who studied Pattern of eye diseases in a university health service clinic in northern Nigeria and found that; male more than female children who had conjunctivitis, while disagreed with Gibson & Mehrsefat, (2017) they studied Conjunctivitis epidemiology and demographics, Harvard Medical School, Boston, MA, USA, and reported that; Conjunctivitis occurs equally in males and females. This might be due to males are exposed to environmental pollution, unhygienic health practice, infection inside and outside home than females and the higher percentage of males in the study area.

The current study revealed that; one third of children were the oldest child between his siblings in their families. This result disagreed with El- Moselhy et al., (2011) who studied Prevalence, Risk Assessment and Impacts of Eye Diseases among School Children in Cairo, Egypt and noted that slightly more than two thirds of children were the youngest child in their families.

Regarding children' previous infection with acute infective conjunctivitis the present study showed that; one third of children have previous infection, this result disagreed with Ghandor et al., (2017) they studied Prevalence of Eye Diseases among School Children in Cairo, Egypt who noted that

more than two thirds of children have previous infection and mentioned that previous eye infection and siblings with eye disease represent significant risk factor.

Regarding to children' going the nursery school, two thirds of them had gone to the nursery school. This finding was in the same line with Aronson & Shope, (2009) who studied Managing Infectious Diseases in Child Care and Schools, A Quick Reference Guide Elk Grove Village, USA and reported that; two-thirds of children younger than 6 years go to nursery school daily.

Regarding sign and symptoms of acute infective conjunctivitis more than half of the studied mothers had correct complete knowledge about that, this result agreed with Liang et al. (2016) who studied "Study of infectious conjunctivitis among children in rural areas of Qinghai province Science China Life" China and mentioned that; half of the studied mothers had complete knowledge regarding acute infective conjunctivitis sign and symptoms.

Regarding types and complications of acute infective conjunctivitis, more than half of them had incomplete knowledge and majority, two thirds and around half of them had incorrect knowledge regarding chronicity of the disease, complications, types and treatment, these study findings disagreed with Ramai & Pulisetty (2013) who founded that; the minority of the studied mothers had complete knowledge regarding causes, and chronicity of conjunctivitis and more than half of mothers had incorrect knowledge regarding complications, types and treatment, This might be due to differences in the level of education of the studied mothers which make them not interested in increasing their knowledge by reading or searching websites.

Concerning mothers' knowledge regarding meaning of acute infective conjunctivitis the study showed that; more than one third of them had incorrect knowledge about meaning of acute infective conjunctivitis, this finding disagreed with Long et al. (2017) who studied "Principles and Practices of children

Infectious Diseases, Stanford” and founded that; the minority of mothers had poor knowledge about meaning of acute infective conjunctivitis. This is might be due to low level of education of these mothers.

Regarding management, causes and preventive measures around half of them had incomplete knowledge, this finding agreed with Ebeigbe & Emedike (2017) who studied “Parents’ Awareness and Perception of Children's Eye Diseases in Nigeria” and stated that; around half of mothers had incomplete knowledge regarding management, causes and preventive measures of acute infective conjunctivitis. This is might be due to low educational level of the mothers.

Concerning knowledge of the studied mothers regarding source of information of acute infective conjunctivitis (Figure 7) this study showed that; more than one third of the studied mothers had correct and complete knowledge regarding source of information this result agreed with Thabet et al. (2017) who studied “Effect of an Educational Program for Mothers of Children with Conjunctivitis during Early Childhood at Faculty of Nursing, Sohag University, Egypt” and mentioned that; one third of mothers had correct knowledge regarding source of information.

Concerning total knowledge score of the studied mothers regarding acute infective conjunctivitis (Figure 8), this study showed that; around quarter of them had good knowledge scores, while slightly one third had average knowledge scores and around half of them had poor knowledge scores, these findings disagreed with Everitt & Little (2017) who performed a study on “A qualitative Study of Patients’ Perceptions of Acute Infective Conjunctivitis” USA and founded that; two thirds of mothers had poor knowledge because they didn’t seek or express a want for more information about acute infective conjunctivitis, also these findings disagreed with Gibson & Mehrsefat (2017) who mentioned that more than two thirds of the studied mothers had good

knowledge scores. This is might be due to low educational level of these mothers.

Concerning to the studied mothers’ personal hygiene practices regarding their children with acute infective conjunctivitis: (Table 4), the current study results revealed that; around three quarter of mothers wash their hands continuously and give the prescribed treatment according to doctor instructions regularly these findings agreed with Gudgel (2017) who studied “Quick Home Remedies for Pink Eye” San Francisco, California, American Academy of Ophthalmology and founded that; the majority of mothers wash their hands continuously and give medication as prescribed.

While majority of them weren’t use specific tools for the child, change pillow cases daily, put cool compresses to remove swelling in the morning, put warm compresses to eyes in the morning to remove discharge and weren’t clean the child’s eyes with clean cotton from the inside to out in one direction, use clean cotton for each eye and clean towels, weren’t avoid their children from rubbing and touching their eyes with their hands and wash pillow cases with hot water respectively, these findings also agreed with Gudgel (2017) who founded that; the majority of the studied mothers weren’t practice basic hygiene to keep their children from spreading the infection to other eye or others.

Concerning to the studied mothers’ practices regarding dealing with eye secretion of their children with acute infective conjunctivitis (Table 5), this result revealed that; all of the studied mothers observe the color of child’s eye secretions this finding disagreed with Copeland et al. (2013) who studied “Principles and Practices of Cornea at London” and mentioned that; half of mothers observe color of eye secretions because the child can’t hide the signs.

Regarding the studied mothers’ practices regarding dealing with eye secretion this study revealed that; around half of mothers weren’t use clean towels while child eye

drying every time, remove discharge with warm water every 6 hours and weren't wash child eyes continuously every 6 hours, these findings disagreed with Wanyama et al. (2015) who studied "Knowledge, Attitude and Practice of Eye Diseases in Children among Pediatricians in Kenya Children" and founded that; half of the mothers had good practice toward using clean towels while child eye drying, weren't washing child eyes child eye care and removing discharge with warm water. This is might be due to mothers poor knowledge about care of their children with acute infective conjunctivitis..

Concerning to the studied mothers' practices regarding care during illness of their children with acute infective conjunctivitis (Table 6) this result revealed that; the majority and around half of them were had attention to clean child's eyes continuously and keep their children away from chemicals substances, while around half of them weren't use special tool for their children as towels and dropper and weren't keep them away from source of dust and smoke these findings agreed with Lowth (2017) who studied "Infective Conjunctivitis. Symptoms, prevention and treatment at Cambridge" and founded that; the majority of mothers were had attention to clean child's eyes continuously, more than half of them weren't use special tools for their children and weren't keep their children away from source of dust and smoke.

Concerning total practices scores of the studied mothers regarding acute infective conjunctivitis (Figure 9) this result showed that; less than half of mother's had satisfactory total practices scores regarding their children with acute infective conjunctivitis, while more than half of them had unsatisfactory total practices these findings disagreed with Sahu (2017) who studied "An Exploratory Study to Assess the Knowledge and Practices of Mothers Related to Eye Care of their Children 3-6 years in an urban area of Ludhiana Punjab" and mentioned that; The majority of the studied mothers had satisfactory practices scores

regarding child's eye care and unsatisfactory practices in the area of eye safety and eye hygiene.

Concerning total knowledge score of the studied mothers regarding acute infective conjunctivitis (Figure 1), this study showed that; around quarter of them had good knowledge scores, while slightly one third had average knowledge scores and around half of them had poor knowledge scores, these findings disagreed with Everitt & Little (2017) who performed a study on "A qualitative Study of Patients' Perceptions of Acute Infective Conjunctivitis" USA and founded that; two thirds of mothers had poor knowledge because they didn't seek or express a want for more information about acute infective conjunctivitis, also these findings disagreed with Gibson & Mehrsefat (2017) who mentioned that more than two thirds of the studied mothers had good knowledge scores. This is might be due to low educational level of these mothers.

Concerning total practices scores of the studied mothers regarding acute infective conjunctivitis (Figure 2) this result showed that; less than half of mother's had satisfactory total practices scores regarding their children with acute infective conjunctivitis, while more than half of them had unsatisfactory total practices these findings disagreed with Sahu (2017) who studied "An Exploratory Study to Assess the Knowledge and Practices of Mothers Related to Eye Care of their Children 3-6 years in an urban area of Ludhiana Punjab" and mentioned that; The majority of the studied mothers had satisfactory practices scores regarding child's eye care and unsatisfactory practices in the area of eye safety and eye hygiene.

According to research question no (1): To what extent the mothers having knowledge and practices regarding acute infective conjunctivitis?

Concerning total knowledge score of the studied mothers regarding acute infective conjunctivitis (Figure 1), this study showed

that; around quarter of them had good knowledge scores, while slightly one third had average knowledge scores and around half of them had poor knowledge scores, these findings disagreed with Everitt & Little (2017) who performed a study on "A qualitative Study of Patients' Perceptions of Acute Infective Conjunctivitis" USA and founded that; two thirds of mothers had poor knowledge because they didn't seek or express a want for more information about acute infective conjunctivitis, also these findings disagreed with Gibson & Mehrsefat (2017) who mentioned that more than two thirds of the studied mothers had good knowledge scores. This is might be due to low educational level of these mothers.

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According to research question no (2): Is there a relation between mothers' knowledge and their practices regarding children with acute infective conjunctivitis?

The current study revealed that; there were positive significant correlations between the studied mothers' total knowledge and practices scores regarding their children with acute infective conjunctivitis ($P < 0.001$). This finding is similar with Ebeigbe & Emedike, (2017) who founded that; there were positive correlation between total knowledge and practices of mothers. This might be due to the low level of knowledge

among the studied mothers had a great effect on decreasing their level of practices.

Conclusion:

Around half of the studied mothers had poor knowledge, while more than half of them had unsatisfactory total practices regarding acute infective conjunctivitis. There were highly statistically significant relation between mother's total knowledge score regarding acute infective conjunctivitis and their educational level, occupation, residence and family monthly income. There were highly statistically significant relation between mother's total practices score regarding their children with acute infective conjunctivitis and their educational level, occupation and family monthly income. There were positive significant correlations between the studied mothers' total knowledge and practices scores regarding their children with acute infective conjunctivitis.

Recommendation:

Health educational program for mothers regarding acute infective conjunctivitis to increase mothers' knowledge and practices in Ophthalmic Outpatient Clinics. Distribute illustrated books about acute and chronic infective conjunctivitis in Ophthalmic Outpatient Clinics to enhance mothers' principle steps for care of their children with the disease. Further study: Health educational program for mothers with children having acute infective conjunctivitis and focus on factors affecting mothers care for their children with acute infective conjunctivitis

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