Home Healthcare Intervention for Mothers Having Children with Postoperative Cataract

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Abstract

Background: Cataract is a clouding of the normally clear lens of the eye or its capsule that obscures the passage of light through the lens to the retina of the eye. **This study aimed to** evaluate home healthcare intervention for mothers having children with postoperative cataract. **Research design:** A quasi-experimental research design. **Setting:** This study was conducted at the Ophthalmological Outpatient Clinics at Benha University Hospital, in Benha City, Qalyobia Governorate, Egypt. **Subjects:** A convenience sample of 102 mothers having children with postoperative cataract. **Tools of data collection; Tool I)**: An structured interviewing questionnaire to assess mothers' socio-demographic characteristics, personal data of children with postoperative cataract, the past medical history of children having cataract, mothers' knowledge about cataract and home healthcare intervention and **Tool II): a)** An observational checklist to assess the mothers' home healthcare practices about cataract, **b)** Observing home environmental condition of children with postoperative cataract. **Results**: 3.9% of the studied mothers had good total knowledge about cataract at pre home healthcare intervention then this percentage increased to 66.7% at post home healthcare intervention, 89.2% of them had unsatisfactory total practices at pre home healthcare intervention then this percentage decreased to 17.6% at post implementation of home healthcare intervention. **Conclusion:** There was highly a statistically significant correlation between the studied mothers` total knowledge score and their total practices at post implementation of the home healthcare intervention. **Recommendations:** Continuous home healthcare intervention implementation for mothers having children with postoperative cataract to improve their knowledge and practices about postoperative cataract.

Keywords: Cataract, Children, Home Healthcare Intervention, Mothers, Postoperative

Introduction:

Cataract is considered the most common cause of eye blindness around the world. More than tens of millions of cataract surgeries are performed each year in developed countries, including Iran, and about 95% of these operations are not associated with complications **(Zarifsanaiey et al., 2022).** Childhood cataract is a complex condition requiring longitudinal care, including early diagnosis, timely referral to a specialist, early surgical intervention, and dedicated postoperative care. Adherence to refractive correction and amblyopia therapy are critical for visual rehabilitation, even months to years after the cataract is removed **(Ahmad & De Alba, 2023).**

Children are vital to the nation‘s present and its future. Children constitute a significant and important sector of the population, who are constantly growing and developing. This basic dynamic character accounts for increased vitality and vulnerability and requires specific health promotion **(Al- Bakri et al, 2021).** Health of children is a top priority of preventive care services such as physical exams, immunizations, and routine screenings can help children avoid serious

health problems and allow early detection and proper management of common medical Conditions **(Hassan et al., 2018).**

Mothers play an important role in management of children with postoperative cataract, so that they must easily learn and follow treatment protocols which usually include frequent health-related meetings as well as instructions of postoperative cataract. Mothers normally provide homecare based on high-teach healthcare. Mothers are taught to recognize and react to severe and distressing adverse effects of treatments which can consist of nausea, vomiting, soreness, sleeplessness after surgery **(Cain & Fanshawe, 2021).**

Home healthcare is a primary healthcare intervention is an integrated system of care designed to meet health needs of individuals, families and communities. It includes primary prevention, secondary prevention, and tertiary prevention. The goal of home healthcare is to ensure better accessibility to effective and efficient healthcare in community and home settings to improve health and wellbeing **(Chabouh et al., 2023).**

Home healthcare is a health services provided at the home as, opposed to a medical facility on a part time basis for the treatment of an illness or injury. Home health care will help mothers with daily living activities such as dressing, eating, and playing of their children **(Euchi et al., 2022).**

Community Health Nurses (CHNs) are the largest group of professional healthcare service providers at the home setting. CHNs perform home visits to assess mother's knowledge related to children with postoperative cataract compliance of medication, early identification of health problems, anticipatory guidance, and health education and provide an opportunity to assess environmental and social factors impacting on the successful of operation. Usually mothers require information concerning care, side effects, complications, and lifestyle practices about cataract **(Murat et al., 2021).**

Significance of Study:

The prevalence of childhood cataract in Egypt was estimated to be 14.7 per 10,000 children, which by far is considered the highest international global incidence. The prevalence of blindness in children varies according to socioeconomic development, in low-income countries with high under-5 mortality rates, the prevalence may be as high as 1.5 per 1000 children, while in high-income countries with low under-5 mortality rates, the prevalence is around 0.3 per 1000 children. If this correlation is used to estimate the prevalence of blindness in children, the number of blind children in the world is estimated to be 1.4 million **(Jiang et al., 2024).**

Aim of the study

The aim of the study was to evaluate home healthcare intervention for mothers having children with postoperative cataract

Research hypothesis

Knowledge and practices of mothers having children with postoperative cataract surgery will be improved after home healthcare intervention implementation.

Subjects and method:

Research design:

A quasi-experimental design was utilized for conducting this study.

Setting:

The present study was conducted at the Ophthalmological Outpatient Clinics of Benha University Hospital, in Benha City, Qalyobia Governorate, Egypt , to collect information about the mothers having children with postoperative cataract surgery

followed by home visits to conduct the intervention.

Subjects:

A convenience sample of all available mothers having children with postoperative cataract surgery, included 102 mothers.

- The inclusion criteria:

Age of children from 1>18 years, both gender postoperative cataract.

- The exclusion criteria:

Children with a history of retinal detachment or amblyopia.

Tools of data collection: Two tools were used in this study:

Tool I: A structured interviewing questionnaire:

The researchers designed questionnaire based on literature review, it was written in simple clear Arabic language. **It consisted of the following three parts:**

First part: This part included two sections:

a. Socio-demographic characteristics of mothers having children with postoperative cataract which included five questions about age, level of education, marital status, residence, occupation.

b. Personal data of children with postoperative cataract which included three questions about age, gender, and child ranking among his siblings.

Second part: The past medical history of children with cataract which included eight questions about age of children at the onset of cataract, symptoms which appeared on the child, site of cataract, previous family history for cataract, kinship of child to ill person and other health problems.

Third part: It was concerned with mothers' knowledge related to two main areas:

a- Knowledge of mothers about cataract which included six questions about meaning of cataract, causes of cataract, signs and symptoms of cataract, sever complications of cataract, complications may occur postoperative cataract and prevention of cataract in children.

b- Knowledge of mothers about home healthcare included five questions about meaning of home healthcare, objectives of home healthcare, precautions should be followed at home after cataract surgery; measures should be followed at the home after cataract surgery and measures to prevent complications.

Scoring system:

The scoring system for mothers' knowledge was calculated as follows 2 score for a correct and complete answer, while 1 score for a correct and incomplete answer, and 0 for don't know. For each area of knowledge, the score of the items was summed-up and the total divided by the number of the items giving a mean score for the part. These scores were converted into a present score.

Total scores of knowledge = 22 points

- Good when total score of knowledge was ≥75 % (≥16 points).
- Average when the total score was 50 - < 75% (11: <16 points).
- Poor when the total score was < 50% (<11points).

II- Tool II: Observational checklist: Consisted of two parts:

The first part: It was concerned with observation of the mothers' home healthcare practices regarding cataract adopted from **El Shafaey & Basal (2018),** and was modified by the researcherss and included 5 practices (12 steps of eye drops at home after cataract surgery, 6 steps of personal hygiene done by mothers, 4 steps of protection of the operation site, 10 steps of care of the operation site after cataract surgery at home and 5 steps of daily activities).

Scoring system: Each step of practice for each procedure has 2 levels: Done and not done, the scoring system for mothers'

practices was calculated as follows 1 score for done the skills, while 0 score for not done. The score of the items was summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a present score. The total scoring system in practices part was classified as the following:

The total practices score = 37 points, this score was divided into the following categories:

- **Satisfactory** when the total score was ≥ 85% (≥ 31 points).
- **Unsatisfactory** when the total score was < 85% (< 31 points).

The second part: It was concerned with observing home environmental condition of children with postoperative cataract surgery. Adopted from **(Abd El-Maksoud et al., 2019)**, and was modified by the researchers and included five items (The floor that consisted of 4 statements, lightening that consisted of 4 statements, ventilation that consisted of 2 items, sanitation that consisted of 3 items and safe waste disposal that consisted of 6 statements).

Environmental scoring system:

(1) score was given for present and (0) score was given for not present. The score of each item summed-up and then converted into a percent score. The total scoring system in environmental part was classified as the following.

The total Environment score = 19

- Sanitary environment was ≥ 80% (≥ 15 points).
- Unsanitary environment was < 80% (< 15 points).

Content validity of the tools:

The tools were reviewed by five experts three from the Community Health Nursing Specialties Department, Benha University, one from the Community Health Nursing Specialties Department, Monofia University and one from the Community Health Nursing Specialties Department, Kafr- Elshiekh University gave their opinion for clarity, relevance, comprehensiveness, appropriateness, legibility and applicability.

Reliability of the tools:

The reliability of the tools was done by Cronbach's Alpha coefficient test which revealed that, each of the two tools consisted of relatively homogeneous items as indicated by the moderate to high reliability of each tool. The internal consistency of knowledge was 0.67, number of questions 22 The internal consistency of practice was 0.80, number of questions 37.

Ethical Considerations:

The study approval was obtained from Scientific Research Ethical Committee of Faculty of Nursing at Benha University (CHN. P100) before starting the study. The researcherss obtained informed oral consent from all studied participants to the fulfillment of the study. The aim of the study was explained to all studied mothers before applying the tools to gain their confidence, cooperation and trust. All studied mothers have the freedom to withdraw from participation in the study at any time. Privacy and confidentiality was assured. Ethics, values, cultural and beliefs was respected.

Pilot Study:

The pilot study was carried out on 10% (n=11) of the total sample to test the clarity, practicability and applicability of tools. The pilot study was aimed to test the content, clarity, applicability and simplicity of the tool using the interviewing questionnaire and the observational checklist as pre-test tools. The estimation of the time needed to fill each tool consumed about 30– 40 minutes. Some modifications were done for some items, according to the results obtained from data analysis of the pilot study sample. The pilot

study sample was excluded from the total sample.

Home healthcare intervention construction included the following phases:

Phase (I): Assessment:

At Ophthalmological Outpatient Clinics each mother and her child were interviewed to assess socio demographic characteristics, personal data of children with postoperative cataract, past medical history of children with postoperative cataract, and mothers' knowledge and practices about cataract through collection and analysis of baseline data from the filled tool. In this phase the researchers did the pretest.

Phase (II): Planning:

Home healthcare intervention implementation based on conducting session plans using different educational methods and media in addition to the use of guiding booklet. Time was opened for mothers to ask questions and to receive the corresponding answers as well as to express their feedback toward the teaching session. Educational media used the poster, laptop, guidance booklet which includes instructions and information for mothers as a reference during and after home healthcare intervention. Teaching material was used Arabic booklet and audiovisual materials followed by home visit to observe mothers' practices regarding postoperative cataract.

-Important needs for target group: The researchers identified the important needs for studied mothers, set priorities of needs, goals and objectives were developed.

Objectives of the home healthcare intervention:

General objectives: At the end of the home healthcare intervention sessions, the studied mothers‘ knowledge and practices regarding postoperative cataract were improved.

Specific objectives: At the end of each session, the studied mothers having children with postoperative cataract became able.

The theoretical part includes:

- Identify the anatomy and function of eye.
- Identify meaning of cataract.
- List causes of cataract.
- Enumerate signs and symptoms of cataract.
- Discuss the primary complications of cataract.
- Enumerate the severe complication for child having cataract.
- Discuss methods of precautions from cataract for children.
- Enumerate the complication which may be occurred postoperative cataract.
- Identify meaning of home healthcare intervention.
- Explain goals of home healthcare intervention.
- Identify practices should be follow at the home after cataract surgery.
- Discus daily activities for children having postoperative cataract.
- Identify a safe environment for the children.

The practical part includes:

- Apply routine hand washing
-Apply steps of eye drops at home after cataract surgery.
-Demonstrate personal hygiene practices
- Apply the correct method of eye cleaning at home after cataract surgery.
- Demonstrate environmental hygiene practices.
- Apply care of the operation site after cataract surgery at home**.**

Phase (III): Implementation:

In this phase the researchers implemented home healthcare intervention for the studied mothers through home visits at the suitable time for them. The study was conducted by the researchers through 6 months from the beginning of April 2023 to the end of September 2023. The researchers visited the

selected setting of the Ophthalmological Outpatient Clinics of Benha University Hospital, Benha City for two days per week as pre intervention (Saturday and Tuesday) from 9:00 A.M. to 12:00 P.M. The average time needed for filling the tools was around 30-40 minutes, the average numbers interviewed at the Ophthalmic Outpatient Clinics were 1-3 mothers/day.

The researchers visited the selected setting and during the initial visit, the researchers introduced themselves, explained the purpose of the study briefly and took their phone numbers and their addresses to complete home visit. The researchers approached the mothers in their homes and asked them questions in Arabic and recorded their responses in the special designed tools.

Home healthcare intervention sessions:

The intervention was introduced through 3 theoretical sessions and 3 practical sessions. Time allocated for 30-40 minutes for each session. Each session started by a summary about what was given through the previous sessions and objectives of the next session. By the end of each session a summary were made and time allocated for questions and answers& plan for next session were made. At the end of each session, mothers participated in a discussion to correct any misunderstanding, a direct reinforcement in the form of a copy of a guiding booklet with illustrated pictures about cataract and post-operative cataract was given as a gift for each mother to use it as a future reference. Also, they were informed about the time of next. Except for the last session a termination of sessions through feedback was done.

First session (theoretical): At the beginning of the first session, the researchers welcomed and introduced themselves to the mothers, an orientation to the intervention and its process were presented with clearance general and specific objectives of the intervention, took informed consent from the mothers after explaining the aim and nature of the study. The researchers discussed the meaning of cataract, causes of cataract and signs and symptoms of cataract, taking into consideration the use of simple language according to the educational level.

Second session (theoretical): Covered the primary complications of cataract, the severe complication for child having cataract and methods of precaution from cataract**.**

Third session (theoretical): Covered complications which may be occurr postoperative cataract, home healthcare intervention and goals of home healthcare intervention.

Fourth session (practical): Covered precautions mothers must to do postoperative cataract as (treatment and regular follow up how to deal with children with postoperative cataract- some instructions to avoid postoperative complications) and steps of eye drops at home after cataract surgery.

Fifth session (practical): Covered the correct method of personal hygiene, care of the operation site after cataract surgery and the correct method of eye cleaning postoperative cataract at home.

Six sessions (practical): Covered daily activities for children having postoperative cataract and safe environment for the children with postoperative cataract.

Teaching methods: All mothers received the same home healthcare intervention content using the same teaching methods:
Lectures/ group discussions. Demonstration / Re- demonstration.

Teaching aids: Suitable teaching aids were specially prepared for home healthcare intervention as the following: Guiding booklet with illustrated pictures about cataract.

- Phase IV: Evaluation

This phase aimed to evaluate the level of improvement in mothers' knowledge and

practices through implementation of home healthcare intervention. This was done through giving post-test similar to the pre-test, evaluation administered to study subjects after completion of the intervention in order to estimate the effect of intervention on mothers' knowledge and practices regarding care of their children with postoperative cataract.

Statistical analysis:

All data collected were organized, tabulated and analyzed using appropriate statistical test. The data were analyzed by using the Statistical Package for Social Science (SPSS) version 21 which was applied to calculate frequencies and percentage, mean and standard deviation, as well as test statistical significance and associations by using Chi- square test (x2) and linear correlation coefficient (r) and matrix correlation to detect the relation between the variables (P value). **Significance levels were considered as follows:**

- Highly statistically significant $P < 0.001$**
- Statistically significant $P < 0.05$*
-Not significant $P > 0.05$.

Results:

Table (1): Shows that, 44.1% of the studied mothers aged from 20 years to less than 30 years old, with mean age 25.45±3.85 years, 47.1% of them had basic education, 64.7 % of them were married, 54.9% of the studied mothers were living in urban area and 55.9 % of them were housewives.

Table (2): Reveals that, 34.3% of the studied children aged from 6 years to less than 12 years with mean age 7.00±4.53 years, 65.7% of them were male. Regarding to the child ranking, 39.2% of the studied children were the first in ranking among his siblings.

Figure (1): Represents that, 3.9% of studied mothers had good total knowledge level about cataract at pre home healthcare intervention then this percentage increased to 66.7% at post home healthcare intervention, while 75.7% of the studied mothers had poor total knowledge level about cataract at pre home healthcare intervention then this percentage decreased to 4.9% at post implementation of the home healthcare intervention.

Figure (2): Shows that, 10.8% of the studied mothers had satisfactory total practices at pre home healthcare intervention which increased to 82.4% at post implementation of the home healthcare while, 89.2% of them had un satisfactory total practices at pre home healthcare intervention, and then this percentage decreased to 17.6% at post implementation of the home healthcare intervention.

Table (3): Clarifies that, there was highly statistically significant correlation between the studied mothers` total practices score and their total knowledge score at post implementation of the home healthcare intervention (P=0.000**).

Table (1): Distribution of studied mothers regarding their socio-demographic characteristics (n=102

Socio-demographic data	No.	%
Age/ years		
20-< 30	45	**44.1**
30-< 40	41	40.2
≥ 40	16	15.7
Mean ±SD	**25.45±3.85**	
Level of education		
Can't read &write	9	8.8
Basic education	48	**47.1**
Secondary education	32	31.4
High education	13	12.7
Marital status		
Married	66	**64.7**
Divorced	28	27.5
Widowed	8	7.8
Residence		
Rural	46	45.1
Urban	56	**54.9**
Occupation		
Housewives	57	**55.9**
Working	45	44.1

Table (2): Distribution of the studied children regarding their personal data (n=102).

Personal data	No.	%
Age / years		
1< 6	34	33.3
6<12	35	34.3
12< 18	33	32.4
Min –Max	2-15	
Mean ±SD	7.00±4.53	
Gender		
Male	67	65.7
Female	35	34.3
Child ranking among siblings		
The first	40	39.2
The second	28	27.5
The third	30	29.4
The forth and more	4	3.9

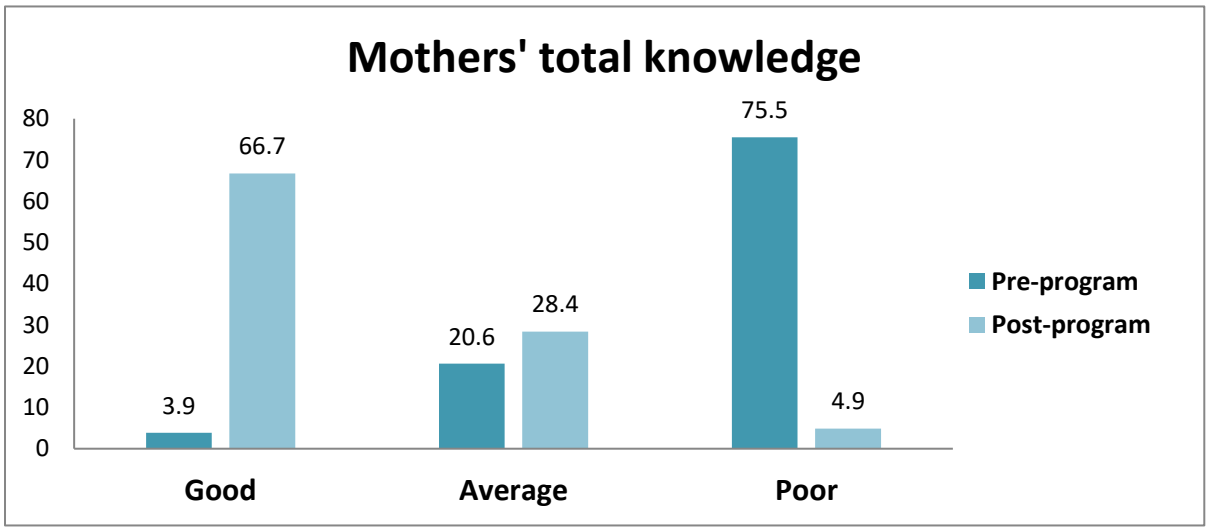

Figure (1): Percentage distribution of studied mothers' total knowledge about postoperative cataract through pre and post implementation of the home healthcare intervention (n=102).

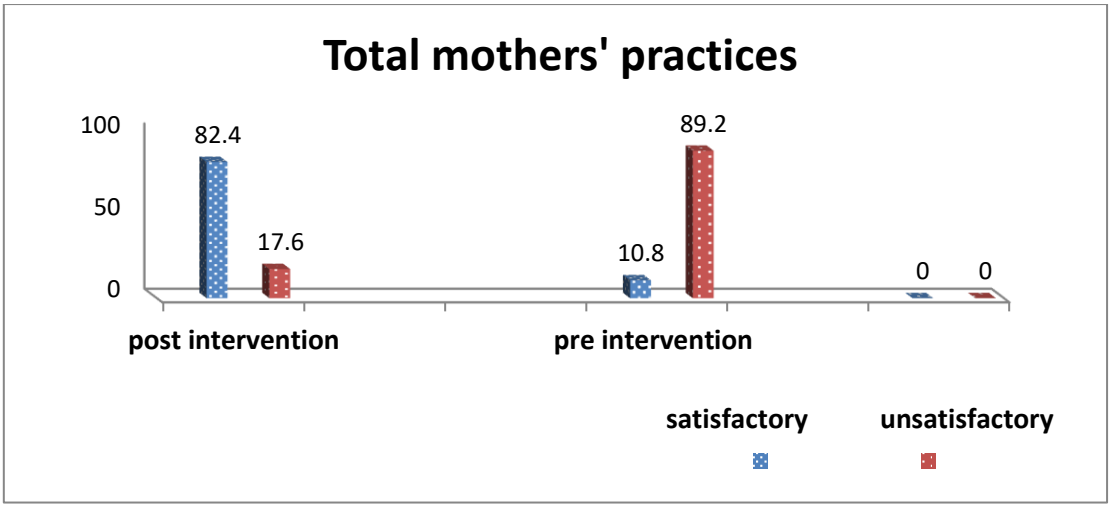

Figure (2): Percentage distribution of studied mothers' total practices regarding care of their children with postoperative cataract through pre and post home healthcare intervention (n=102).

Table (3): Correlation between the studied mothers' total knowledge and their total practices regarding care of their children with postoperative cataract at pre home healthcare intervention (n= 102).

Total practices	Total knowledge			
	Pre implementation of the intervention		Post implementation of the intervention	
	r	p-value	r	p-value
	.550	.060	.781	.000**

****Highly statistically significance p<.001 * Statistically significance p<.05.**

Discussion

Cataract is one of the most common eye problems among children, the development of cataract can be the result of compaction of lens fibers reduce water content and causes lens proteins to clump together and start to cloud small area of the lens. Over time, cataract grows larger and makes the lens hard to see. The extent of visual impairment depends on size, density and location of the cataract in the lens. More than one type can be present in one eye. The crystalline lens is a transparent, biconvex structure in the human eye that, functions in a similar way to the lens of a camera. A cataract is a lens abnormality characterized by decreased transparency and increased cloudiness. Cataract is the leading cause of reversible visual impairment and blindness globally **(Hejtmancik et al., 2021).**

Regarding to socio- demographic characteristics of studied mothers, the present study, clarified that; less than half of the studied mothers aged from 20 years to less than 30 years old with mean age 25.45±3.85 years, less than half of them had basic education, more than half of them were housewives and living in urban area.

These results were strongly agreed with **Asem et al., (2023)** in their study entitled "Knowledge and Practices of Mothers regarding their Children with Eye Trauma in Benha University Hospital" (n= 75) who revealed that, more than one third of them had secondary education. In addition, more than

one third of them were housewives, more than half of them lived in rural area. Also, this result was congruent with **Baashar et al., (2020)** who revealed a study Parents knowledge and practices about child eye health care in Saudi Arabia (n=97) and reported that more than one third of the studied mothers aged from 21 years to 30 years old. Conversely, this result was incompatible with the study performed by **Gyllén et al., (2020)** who revealed the study in Sweden (n=185) about Parents Reported Experiences When Having a Child with Cataract Important Aspects of Self-Management Obtained from the Paediatric Cataract Register (PECARE)" and reported that a mean age of the participants 40.39 years (SD ± 6.41 years), and less than one third had high school education. Also, this result disagreed with **Saad et al., (2020)**, who studied "Assessment of home accident among children with retinoblastoma in Egypt" (n=100) and reported that less than two thirds of the studied sample were in between 30: 40 years old with the mean age of 32.33± 4,601 and less than half of the studied sample had diploma.

From the researchers' opinion, the age group of 20 to 30 years is typically associated with peak reproductive years. Many women in this age range may be starting families, which could explain a higher representation of this demographic in studies focused on motherhood. Also, the observation that less than half of the mothers had basic education might reflect broader societal and economic factors. In some regions or communities, access to education may be limited due to factors such as socioeconomic status, cultural norms, or systemic barriers. Lower education levels can influence various aspects of maternal health and child-rearing practices.

As regards to, the total knowledge level of the studied mothers pre and post implementation of home healthcare intervention , the current study represented that, few of the studied mothers had good total knowledge level about cataract at pre home healthcare intervention then this percentage increased to about two thirds at post home healthcare intervention, while three quarters of them had poor total knowledge level about cataract at pre intervention then this percentage decreased to the minority at post implementation of the home healthcare intervention. This result findings were consistent with **Du et al. (2022)** who carried out a study about "Knowledge of cataracts and eye care utilization among adults aged 50 and above in rural Western China**"** (n= 675) and clarified that nearly two-thirds of the participants had good knowledge of cataracts.

In researchers' perspective, the intervention may have engaged the mothers actively. This might be due to effectiveness of current home healthcare intervention and mother hadn't received any health education program about cataract before.

From the researchers' point of view, it might be repeated exposure to information about cataract through the intervention could help reinforce learning. The more often the information is presented, the more likely individuals are to retain. Also, the way information was presented-using clear, accessible language and visual aids could have made it easier for the mothers to comprehend the meaning and implication of cataract.

The current study showed that; the minority of the studied mothers had satisfactory total practices at pre home healthcare intervention which increased to the majority at post implementation of the home healthcare intervention, about three quarters of them had un satisfactory total practices at pre intervention, and then this percentage decreased to the minority at post

implementation of the home healthcare intervention**.**

This result was consistent with **Asem et al., (2023)** who clarified that about two thirds of studied mothers had unsatisfactory total practices score about eye trauma and more than one third of them had satisfactory total practices score about eye trauma. Also, this result corroborated with **Abd El-Halem et al., (2022)** who carried out the study about "Effect of Designed Guidelines for Mothers regarding Care of their Children with Ophthalmological Trauma" at inpatient department at Specialized Ophthalmology Center of Banha University Hospital (n= 80), and reported that the majority of the mothers exhibited adequate total practice score at post-guidelines compare to less than half of them exhibited adequate total practices score at pre-guidelines.

Conversely, this result was out of line with **Salem et al., (2022)** who studied "Mothers Care for their Children Suffering from Retinoblastoma" at Oncology Outpatient Clinics at Rod Al-Farag Hospital in Cairo City (n= 50) and showed that more than half of studied mothers had satisfactory practices level while, less than half of them had unsatisfactory practices level regarding to total practices for their children suffering from eye problems.

From the researchers' perspective, the home healthcare intervention designed to bridge the knowledge gap by providing clear, structured, and comprehensive guidance on how to properly care for the operation site at home. This included demonstrations, instructions on medication adherence, and correct postoperative care procedures. This result matched to **Sen et al., (2020)** who studied "Causes of delayed presentation of paediatric cataract: A questionnaire-based prospective study at a tertiary eye care center in central rural India" (n=110), and revealed that less age at surgery, upper socioeconomic status, less time delay, and better preoperative vision were positively correlated to better visual outcomes.

Also, this result coincided with **Al Bakri et al., (2021)** who demonstrated that there is a statistically significant relationship between the total practices score of the studied mothers and both their age and level of education, with a significance level of $p < 0.001$. This means that differences in age and educational level of the mothers are strongly associated with variations in their total practices scores, which likely reflect their knowledge or behaviours related to health practices, such as those concerning cataract management.

The present study showed that there was highly statistically significant correlation between the studied mothers` total practices score and their total knowledge score at post implementation of the home healthcare intervention**.** This result agreed with **Asem et al., (2023)** who demonstrated that that there was highly statistically significant relation between mothers' total knowledge score and their total practices score about eye trauma. Also, this finding agreed with **Arishia et al., (2019)**, who studied "Childhood eye care services in south Darfur state of Sudan: Learner and parent perspectives" (n=86), who found that there was highly statistical relation between total knowledge and total practices.

Moreover, this result coincided with **Abd El-Halem et al., (2022)** who revealed that the presence of a strongly positive statistical correlation among mothers' total knowledge and their total practice scores at pre/ post-guidelines ($p<0.001$). Furthermore, this finding was confirmed by **Ahmed et al., (2019)**, (n=100), who reported that the relation between parents total knowledge and total practices was highly statistically significant (P=0.001).

Conclusion:

Utilization of home healthcare intervention achieved significant improvement in mothers' knowledge and practices regarding care their children with postoperative cataract, as the minority of the studied mothers had good total knowledge level about postoperative cataract at pre home healthcare intervention, which increased to two thirds post home healthcare intervention implementation. There was highly statistically significant correlation between the studied mothers` total knowledge score and their total practices at post implementation of the home healthcare intervention.

Recommendations:

- Continuous home healthcare intervention implementation for mothers having children with postoperative cataract to improve their knowledge and practices about postoperative cataract.
- Conduct a longitudinal study on large sample size and different geographical areas for more generalized findings to enhance adaptive strategies of postoperative cataract.

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الرعاية الصحية المنزلية التداخلية للأمهات اللأتي لديهن أطفال خضعوا لجراحة إعتام عدسة العين

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إعتام عدسة العين هو أحد مشاكل العين الخطيرة، وهو السبب الرئيسي الثاني لضعف البصر والسبب الأول للعمى على مستوى العالم إذا ترك بدون علاج. لذلك **هدفت الدراسة** إلي تقييم الرعاية الصحية المنزلية التداخلية للأمهات اللاتي لديهن أطفال خضعوا لجراحة إعتام عدسة العين. **تصميم البحث**: تم استخدام تصميم شبه تجريبى. **مكان البحث:**عيادات الرمد الخارجية لمستشفى بنها الجامعي، في مدينة بنها, محافظة القليوبية. **عينة الدراسة**: وقد أجريت هذه الدراسة علي عينه متاحة مكونة ١٠٢ من الأمهات اللاتي لديهن أطفال خضعوا لجراحة إعتام عدسة العين. **أدوات جمع البيانات**: **الأداة الأولى:** استمارة استبيان للمقابلة: وتتكون من ثلاثة أجزاء: **الجزء الأول** يشمل الخصائص الديموجرافية لكل من الأمهات والأطفال, **الجزء الثاني** يشتمل علي التاريخ الطبي للأطفال الذين خضعوا لجراحة إعتام عدسة العين و **الجزء الثالث** يشتمل علي معلومات الأمهات فيما يتعلق بإعتام عدسة العين **والأداة الثانية**: **قائمة مرجعية تقوم على الملاحظة** وتتكون من جزئين: **الجزء الأول:** ممارسات الأمهات فيما يتعلق بالرعاية الصحية المنزلية قبل وبعد تطبيق الرعاية الصحية المنزلية التداخلية و**الجزء الثاني:** مواصفات البيئة المنزلية للطفل الخاضع لجراحة إعتام عدسة العين بعد العملية الجراحية. **النتائج**: كشفت النتائج أن ٣,٩٪ من الأمهات كان إجمالي مستوي معرفتهن جيد حول إعتام عدسة العين قبل تدخل الرعاية الصحية المنزلية، ثم ارتفعت هذه النسبة إلى ٦٦,٧٪ بعد التدخل، وفيما يتعلق بمستوى ممارسات الأمهات، كانت ١٠,٨٪ منهن إجمالي ممارساتهن مُرضية قبل تدخل الرعاية الصحية المنزلية، ثم ارتفعت إلى ٨٢,٤٪ بعد تنفيذ التدخل. **الاستنتاج:** وقد لخصت النتائج علي أن هناك علاقة ارتباطية ذو دلالة إحصائية عالية بين درجة المعرفة الإجمالية للأمهات واجمالي درجة ممارساتهن بعد تنفيذ تدخل الرعاية الصحية المنزلية. **التوصيات:** أوصت الدراسة الي استمرار تنفيذ تدخل الرعاية الصحية المنزلية للأمهات اللاتي لديهن أطفال خضعوا لجراحة إعتام عدسة العين لتحسين معرافتهن وممارستهن فيما يتعلق بإعتام عدسة العين بعد الجراحة.