

Effect of Educational Guidelines on Mothers' Performance regarding Care of Children with Epistaxis

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Abstract

Background: Epistaxis is acute bleeding from the nasal cavity or nasopharynx. A nosebleed is a relatively common and usually self-limited occurrence in childhood. However, profuse or recurrent epistaxis can be extremely distressing to children and parents. **Aim of study:** Was to evaluate effect of educational guidelines on mothers' performance regarding care of children with epistaxis. **Research design:** A quasi-experimental design was utilized in the current study. **Settings:** This study was conducted at both inpatient department and outpatient Ear, Nose and Throat clinic at Benha University Hospital. **Subjects:** A purposive sample of 70 mothers and their children who were suffering from epistaxis were included. **Tools of data collection:** Three tools were used: **I.** A structured interview questionnaire sheet consisted of 3 parts, part one: Mothers characteristics, part two: Children characteristics and part three: Mother's knowledge towards epistaxis. **II.** Mother's attitude towards epistaxis and **III.** Mother's reported practice regarding epistaxis. **Results:** There was a highly statistical significance difference observed between total level of knowledge, attitude and reported practice of the studied mothers regarding epistaxis in pre compared to in post educational guidelines implementation. **Conclusion:** The educational guidelines were effective in improving mothers' knowledge, attitude and practice regarding care of children with epistaxis post educational guidelines implementation as compared to pre- educational guidelines implementation. **Recommendation:** Further studies should be applied on all health problems related with epistaxis as hemorrhagic disorders, vitamins deficiency and chronic diseases and future researches should be replicated on a large sample of mothers in different setting which are needed for generalization of the obtained results.

Keywords: Educational guidelines, Mothers' performance, Children, Epistaxis.

Introduction

Epistaxis is considered acute bleeding from nose, nasal cavity or nasopharynx, caused by a broken blood vessel. Bleeding from the nasal septum is responsible for the majority of epistaxis cases. Also, epistaxis is one of the most common Ear, Nose and Throat (ENT) emergencies that present to the emergency room or primary care. Epistaxis is rarely life threatening but may cause

significant concern, especially among parents of small children (**Bamimore, 2021**).

Epistaxis often results from harmless activities such as child picking nose, blowing too hard or getting knocked during play especially preschool and school age. Also, epistaxis may be caused from environmental factors as dry climate, dust, inflammatory and sensitive causes but in many cases idiopathic (**Constantini, 2021**).

The main symptom of epistaxis is blood dripping or running from the nose. The symptoms of epistaxis can be like other health conditions may be associated with fatigue, dizziness, blurred vision, tiredness, loss of energy, tachycardia and tachypnea during recurrent or excessive bleeding (**Whittaker, 2020**).

Severe epistaxis in children is rare and seldom require hospital admission. Nonetheless, frequent minor epistaxis can be both bothersome and alarming for parents and children. Epistaxis in children is minor and is easily managed with direct compression of the nasal cartilage for 5-10 minutes. Child may be distressed and upset by the sight and taste of blood during a nosebleed. Mother should reassure child because crying will make the bleeding worse (**Tabassom, 2020**).

Most children with epistaxis have spontaneous anterior nasal bleeding without airway compromise or hemodynamic instability. But some children exposed to health problems and complications as general weakness, disturbance in vital signs, impair in airway clearance. So, rapid assessment of general appearance, vital signs, airway stability and mental status are still necessary to identify children who require airway intervention and/or fluid resuscitation. Airway intervention may be needed for children who are spitting or regurgitating blood and with hemorrhagic shock (**Viljoen, 2019**).

Epistaxis is a common health problem that can be prevented easy through using a saline nasal spray or saline nose drops 2-3 times a day in each nostril of child to keep nasal passages moist, adding a humidifier to child bedroom at night and moisture the air, spread water-soluble nasal gels or ointments in child nostrils with a cotton swab. Mother educates child not blowing nose too

forcefully, sneeze through an open mouth, avoid putting anything solid into nose, including fingers and always keep child's fingernails short (**Sachdev, 2021**).

Mothers' role towards epistaxis focused on maintaining child health, improving immunity, avoiding recurrent episodes of epistaxis and preventing complications. So, mothers learned first aid of epistaxis, nose and mouth care, drug administration through nose and mouth also measures which improve immunity as balanced nutrition, increase fluids intake, avoid smoking dust areas and practices suitable type of exercises according child age (**Hassan et al., 2018**).

Nurses' role towards epistaxis initiates on correct mothers' myths and mistakes, nurse helps mother to improve knowledge, has positive attitude and correct practices regarding epistaxis because mother first care giver to child. Also, decrease child and parents' anxiety, perform first aid of epistaxis, provide full assessment and resuscitation if necessary to preserve child health. Nurses' role not confined to previous points but continue until provide all mothers and children needs (**Rushing, 2021**).

Significance of the study:

Epistaxis commonly occurs in children between 3-10 years of age, whereas is rare among neonates, less than 2 years of age and the incidence decreases in adulthood. Worldwide, epistaxis is estimated to occur in 60% of children during their lifetime, 50% of all adult individuals had been presented with epistaxis during childhood (**Fishman et al., 2018**).

Epistaxis is considered the most common health problem between children in Egypt as a result of spearing dust, hot, dry weather and respiratory infection. Epistaxis represents 30% of children below 5 years, 56% aged between 6-10 years, 64% of those

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aged between 11-15 years who had at least 1 episode of epistaxis in lifetime and generally boys are slightly more affected than girls. So, application of educational guidelines for mothers regarding care of their children with epistaxis is highly required to improve mothers' performance and prevent further complication (**Kumar et al., 2018**).

Aim of the study

The aim of this study was to evaluate effect of educational guidelines on mothers' performance regarding care of children with epistaxis.

Research hypothesis:

1-The educational guidelines would improve mothers' knowledge regarding care of children with epistaxis.

2- The educational guidelines would improve mothers' attitude towards care of children with epistaxis.

3- The educational guidelines would improve mothers' practice regarding care of children with epistaxis.

Subject and Method

Research design:

A quasi –experimental research design was utilized to conduct the study.

Setting:

This study was conducted at both inpatient department and outpatient Ear, Nose, and Throat clinic at Benha University Hospital.

Sample:

Study subjects were consisting of purposive sample of (70) mothers and their children were selected through 6 months from beginning of the study, from the above-mentioned setting and willing to participate in the study after children fulfilling the following inclusion criteria.

- Children from 3 to 10 years old who have epistaxis.

- Male & female children.

Tools for data collection:

Tool I: A structured interviewing questionnaire: It was constructed by the researcher in an Arabic language after reviewing the recent relevant literature, it was composed of 3 parts:

-Part (1). Characteristics of the studied mothers such as: Age, level of education, occupation and residence.

-Part (2). Children characteristics such as: Age, gender, child rank, level of education and past history as: age at first time of epistaxis, cause of child's epistaxis for the first time, frequency, duration of epistaxis in minutes, family history for epistaxis, if the child need a blood transfusion due to previous epistaxis and if the child need medical intervention to stop the epistaxis.

-Part (3). Mother's knowledge regarding epistaxis: It was adapted from **Alshehri et al., (2018) & Kim et al., (2019)** and modified by the researcher to assess mother's knowledge towards epistaxis in children, it consists of 8 questions related to definition, causes, signs and symptoms, the most effective measures to stop epistaxis, the suitable time to go the emergency department, complication of recurrent epistaxis, prevention and treatment methods of epistaxis. Total degrees of questions are 0-16 degree.

Scoring system of mothers' knowledge:

Scoring system for knowledge of the studied mothers was categorized as the following: The studied mothers' answers were compared with a model key answer and (2) scores gave for complete and correct answer, (1) score for incomplete correct

answer and (0) score for don't know or incorrect answer.

-The total scores were calculated as the following:

- Good knowledge $\geq 75\%$.
- Average knowledge $60\% > 75\%$.
- Poor knowledge $> 60\%$.

Tool II: Mother's attitude towards epistaxis: It was adapted from **Ganfure et al., (2018) & Alhejaily et al., (2019)** and modified by the researcher to assess mother's attitude towards care of children with epistaxis, it consists of 20 items such as, if mother prefer go to doctor when child exposed to frequent epistaxis, if mother feels stable and able to deal with increased amount of epistaxis and if mother keeps child attending nursery school or school when exposed to frequent epistaxis. Total degrees of questions are 20-60 degree.

Scoring system of mothers' attitude:

Scoring system for attitude of the studied mothers was calculated as the following: The mothers' attitude was categorized into (3) scores for agree response, (2) scores for unsure, and (1) score for disagree response.

-The total scores were calculated as the following:

- Positive attitude $\geq 60\%$.
- Negative attitude $< 60\%$.

Tool III: Mother's reported practice regarding epistaxis: It was adapted from **Saleem et al., (2018) Marchisio et al., (2014) & Mohammad et al., (2020)** and modified by the researcher to assess mother's reported practice towards care of children with epistaxis, it included mother's actual intervention regarding epistaxis which included 5 parts: **Part one** first aid regarding epistaxis and total degrees of this part are 0-12 degree. **Part two** nose and mouth care

and total degrees of this part are 0-11 degree.

Part three drug administration through nose and total degrees of this part are 0-10 degree.

Part four drug administration through mouth and total degrees of this part are 0-14 degree.

Part five measures of immunity improvement and total degrees of this part are 0-12 degree.

Scoring system of mothers' reported practice:

Scoring system for reported practice of the studied mothers was calculated as the following: The mothers' reported practice was categorized into correct and completely done (1) scores, incorrectly done or not done (0) score.

-The total scores were calculated as the following:

- Satisfactory practice $\geq 75\%$.
- Unsatisfactory practice $< 75\%$.

Content validity:

The data collection tools were revised by a panel of (3) experts in the field of Pediatric Nursing, Faculty of Nursing, Benha University to determine the extent to which the items related to each other, clarity, relevance, comprehensiveness, simplicity and applicability and the necessary modifications were done accordingly reliability performed to confirm validity of the study tools.

Reliability:

Reliability of the tools was checked by testing its internal consistency using Cronbach's alpha coefficient test. Knowledge reliability statistics Cronbach's alpha = 0.934 Attitude reliability statistics Cronbach's alpha = 0.965 Practice reliability statistics Cronbach's alpha = 0.979. So, tools were found to be highly reliable for data collection.

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Ethical consideration:

The approval of ethics committee of Faculty of Nursing, Benha University was obtained. Mother's oral and written consents were obtained before data collection with ensuring complete privacy, complete description of the purpose and nature of the study was approached and confidentially was assured to mothers. All mothers informed that they have the right to withdraw at any time from the study without explanation of their rationale and their data is secured.

Pilot study

A pilot study was carried out during April 2021 (1 month), involved 10% of sample size (7 mothers and their children attending to the previously mentioned setting) to test the reliability and applicability of the study tools and estimate the proper time required for answering the questionnaire. All participants in the pilot study were included in the sample as where no radical modifications were carried out in the study tools as revealed from the pilot study.

Field work:

The following phases were adopted to achieve the aim of the current study; assessment, planning, implementation and evaluation phases. These phases covering 6 months period (from the beginning of May 2021 to the end of October 2021). Study was collected according to the policy of the study setting. Data were collected 3 days/week (Saturday, Monday and Wednesday from 8 AM until 12 PM in ENT clinic and from 12 PM until 4 PM in ENT department).

(a) Assessment phase:-

Data collected in this phase before implementing the educational guidelines. The questionnaire sheets were distributed to all mothers individually to assess mother's

performance and determine mothers needs regarding epistaxis using the previous study tools. The time needed for filling all data collection tools were 30- 40 minutes, the average time needed to answer mothers, children characteristics and knowledge questions 10-15 minutes, attitude questions 5-10 minutes and reported practice steps are 10-15 minutes. The period of assessment phase (pre-test) took one month (May 2021). An average of 5-6 mothers were interviewed per/day, 3 days weekly, at Benha University Hospital.

(b) Planning phase:-

This phase included analysis of the assessment phase (pre-test) findings and identification of the actual needs of the studied mothers. Accordingly, the educational guidelines were designed by the researcher using simple Arabic language and pictures in order to facilitate mothers' understanding.

(c) Implementation phase:-

It was implemented after assessed mother's performance and determined their needs regarding epistaxis. It was achieved through 5 sessions at a period of 3 days/week. Each session started by a summary of the previous session and objectiveness of new one. Take into consideration, the use of the Arabic language that suits the mothers' educational level. During session, mothers, children and researcher sits together in circle and take turns sharing; every mother had an opportunity to ask questions and share information with each other.

The total number of sessions were 5 sessions, each session was taken 45-60 minutes at a period of 4 months beginning from (June 2021 till the end of September

2021). Moreover, 5 sessions containing the study objectives and carried out through (3 sessions for the theoretical and affective parts and 2 sessions for the practical part) with different teaching methods and media.

A schedule suitable for mothers developed including date, time, place, topics and duration of each session. It was challenging to take whole mothers at the same time; so, they divided into 12 groups of 5-6 mothers in each session take into consideration precautionary measures. Each mother was supplemented with a copy of guidelines and share video to her mobile or received a copy of video on CD. Researcher develop group on WhatsApp and mothers were added for motivation, communication, interaction, support and follow up.

Precautionary measures are taken into consideration during data collection and sessions including:

- Personnel protective materials such as a face mask, gloves, antiseptic solution for hand hygiene.
- Personal distancing to maintain a minimum 1.5m distance.
- Avoiding shaking hands or hugging.
- Always cover the mouth while sneezing and coughing to prevent droplet transmission.
- Avoid touching one's mouth, nose or eyes to prevent the spread of infection.

(d) Evaluation phase:-

After implementation of educational guidelines for mother's knowledge, attitude and reported practice regarding care of their children with epistaxis. An immediate posttest was carried out after the implementation to assess mothers' performance, using the same forms of the pretest. This helped to evaluate the effect of the implemented educational guidelines. The period of post-test took one month (October 2021).

Statistical analysis:

The collected data was coded and transformed into specially designed form to be suitable for computer entry process. Data was entered and analyzed by SPSS (Statistical Package of Social Science) version 20. Software graphics were done by using micro soft office excel program version 2010. Quantitative data was presented by mean and standard deviation. Qualitative data was presented in the form of frequency distribution tables, number and percentage, it was analyzed by Chi-square (X²) test. Level of significance was set as a highly statistical significance difference ($P \leq 0.001$), A statistical significance difference ($P < 0.05$) and No statistically significant difference at ($P > 0.05$).

Results:

Table (1): Shows that, more than half (58.6%) of them in the age group of 20 > 30 years and their mean age was 27.01±5.81 years. Concerning educational level, less than two thirds (62.9%) of them were secondary education. Regarding occupation, less than two thirds (65.7%) of them were housewives and slightly more than three-quarters (75.7%) of the mothers lived in rural areas.

Table (2): Demonstrates that, less than half (45.7%) of the studied children in the age group 5 > 7 years and the mean age was 6.31±1.66 years. Concerning gender, less than three quarters (72.9%) of them were males. Regarding child ranking, half (50.0%) of them were the first child. Also, less than two thirds (65.7%) of them were in primary school.

Table (3): Indicated that, more than half (55.7%) of the studied children exposed to epistaxis at first time, in the age group 5 > 7 years and their mean age was 3.98±1.04

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years. Concerning causes of epistaxis at first time, less than one third (32.8%) of them exposed to dry air and had nasal sensitivity and inflammatory diseases. Concerning duration of epistaxis, more than one third (35.7%) of them were 5 > 10 minutes epistaxis episodes. Regarding family history of epistaxis, it was observed that, less than three quarters (70.0%) of them had family history of epistaxis. Also, the majority (100.0%) & nearly three quarters (74.3%) of studied children not needed to blood transfusion and not need medical intervention respectively.

Figure (1): Revealed that, less than one third (15.7%) of the studied mothers had good knowledge in pre-educational guidelines implementation while less than three quarters (71.4%) of them had good

knowledge in post educational guidelines implementation.

Figure (2): Cleared that, more than three quarters (75.7%) of the studied mothers had positive attitude in post compared to (27.1%) in pre-educational guidelines implementation.

Figure (3): Indicated that shows that, the majority (82.9%) of the studied mothers had satisfactory reported practice in post educational guidelines implementation compared to more than one third (31.4%) in pre- educational guidelines implementation.

Table (4): Indicates that, there was positive statistical correlation between mothers' knowledge, attitude and reported practice regarding care of their children with epistaxis in pre and post educational guidelines implementation as ($P \leq 0.000$).

Table (1). Frequency distribution of the studied mothers regarding their characteristics (n=70).

Mothers' characteristics	No.	%
Age (years)		
< 20	6	8.6
20 > 30	41	58.6
30 > 40	19	27.1
≤ 40	4	5.7
Min-Max	19-41	
Mean ±SD	27.01±5.81	
Educational level		
Primary education	3	4.3
Secondary education	44	62.9
University education	23	32.9
Job		
Working	24	34.3
Not working	46	65.7
Residence		
Rural	53	75.7
Urban	17	24.3

Table (2). Frequency distribution of the studied children regarding their characteristics (n=70).

Children' characteristics	No.	%
Age (years)		
3 > 5	15	21.4
5 > 7	32	45.7
7 > 10	23	32.9
Min-Max	4-10	
Mean ±SD	6.31±1.66	
Gender		
Male	51	72.9
Female	19	27.1
Child ranking		
First	35	50.0
Second	30	42.9
Third	5	7.1
Educational level		
Nursery school	24	34.3
Primary school	46	65.7

Table (3). Frequency distribution of the studied children regarding their medical history (n=70).

Past history	No.	%
Age at first time of epistaxis (years)		
3 > 5	25	35.7
5 > 7	39	55.7
7 ≥ 10	6	8.6
Min-Max	3-8	
Mean ±SD	3.98±1.04	
Causes of epistaxis at first time		
Nose impingement and trauma	15	21.4
Dry air	23	32.8
Insertion of a foreign object into the nose	6	8.6
Nasal sensitivity and inflammatory diseases	23	32.8
Deviation of the nasal septum	3	4.4
Duration of nose bleeding / minutes		
< 1	6	8.6
1 > 5	23	32.8
5 > 10	25	35.7
10 > 15	9	12.9
15 > 20	3	4.3
≤ 20	4	5.7
Family history		
Yes	49	70.0
No	21	30.0
Child need blood transfusion		
No	70	100.0
Child need medical intervention		
Yes	18	25.7
No	52	74.3
Types of medical intervention (n=18)		
Cauterization of the blood vessels in the nose	13	72.2
Anterior nasal packing	5	27.8

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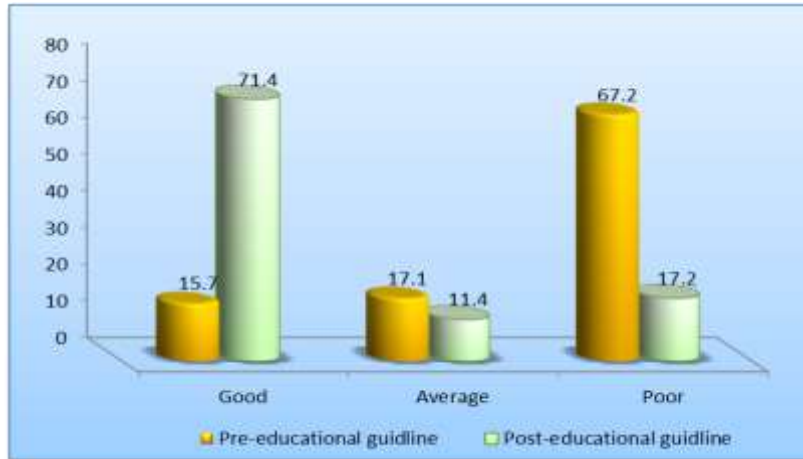


Figure (1). Total mother's knowledge towards epistaxis in pre and post educational guidelines implementation (n=70).

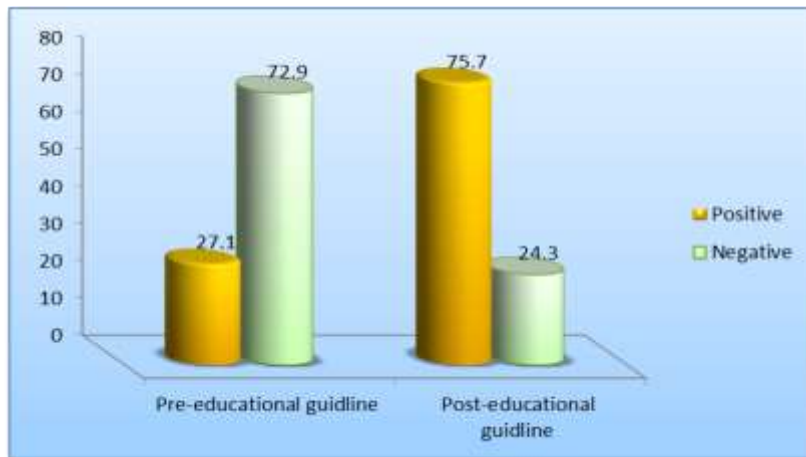


Figure (2). Total mother's attitude towards epistaxis in pre and post educational guidelines implementation (n=70).

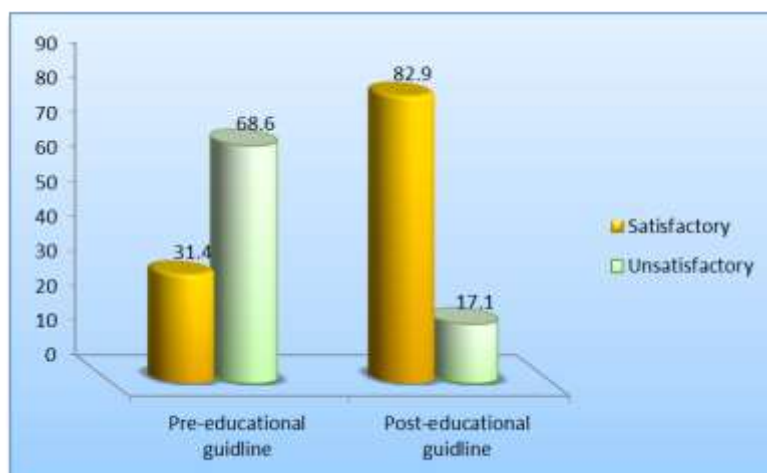


Figure (3). Total mother's practices level about epistaxis in pre and post educational guidelines implementation (n=70).

Table (4). Correlation matrix between mothers’ total knowledge, attitude and reported practices in pre and post educational guidelines implementation. (n=70).

Variables		Pre- educational guidelines implementation (n=70)			Post educational guidelines implementation (n=70)		
		Total knowledge	Total attitude	Total reported practices	Total knowledge	Total attitude	Total reported practices
Total knowledge	R	1	.834	.939	1	.909	.989
	p-value		.000**	.000**		.000**	.000**
Total attitude	R	.834	1	.848	.909	1	.915
	p-value	.000**		.000**	.000**		.000**
Total reported practices	R	.939	.848	1	.989	.915	1
	p-value	.000**	.000**		.000**	.000**	

Discussion:

According to characteristics of the studied mothers, the current study revealed that, more than half were 20 < 30 years. Also, less than two thirds not working and more than three-quarters of the mothers were lived in rural areas. These finding was congruent with **Hema& Babu. (2016)** that entitled “A descriptive study to assess the level of knowledge regarding first aid management among mothers of under five children and safety practices at home in rural village, chennai, tjprc” and found that, two thirds (66%) of the studied mothers in the age group of 21 to 30 years, two thirds (66.1%) unemployed and all mothers in rural setting.

As regards characteristics of the studied children, the current study demonstrated that, less than half were 5 < 7

years. This finding was supported by **Misra et al., (2016)** that entitled “Management of pediatric epistaxis in different age group in a tertiary care centre” and reported that, less than half (46.0%) of the studied children in the age group 5 < 7 years. Additionally, this finding was matched with **Alqarni et al., (2019)** whose study entitled “Prevalence, causes, treatment, and outcome of epistaxis” and founded that, less than half (46.5%) of them in the age group 5 - 6 years. From the researcher point of view, children in the age group 5 < 7 years were motion and hyperactive, so they exposed to trauma, falling and other problems caused epistaxis.

As found in the same table less than three quarters were males. This finding was matched with **Cailou & Johnson. (2019)** that entitled “Hemostasis of idiopathic recurrent epistaxis in children with microwave ablation: a prospective pilot case series” and stated

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that, two thirds (66.0%) of them were males. On the other hand, this finding was incongruent with **Moran & Das. (2016)** that entitled “Epistaxis—incidence, etiology, and management: A hospital-based study” and found that, less than three quarters (73.6%) were females. This difference may be due to boys tend to force activity and exercises more females.

Concerning children past history related to causes of epistaxis at first time, it was stated that, more than one fifth of them are affected due to nose impingement and trauma, slightly less than one third exposed to dry air and other one third due to nasal sensitivity and inflammatory diseases. This finding was consistent with **Gilyoma & Chalya, (2011)** that entitled “Etiological profile and treatment outcome of epistaxis at a tertiary care hospital in Northwestern Tanzania: a prospective review of 104 cases” and reported that, more than one fifth (24.8%) of participants had epistaxis due to nasal trauma. On the other hand, the current study incomparable with **Higuera, (2019)** that entitled “What causes nosebleeds and how to treat them” and reported that, more than half (55.6%) of children exposed to dry air. Another disagreed study conducted by **Alqarni et al., (2019)** who found in a study entitled “Prevalence, causes, treatment, and outcome of epistaxis” slightly more than half (50.5%) of children had epistaxis due to inflammatory diseases. Researcher explained this difference by the most common causes of epistaxis which affect according to many factors as: child age, immunity status, nutrition and type of exercises.

Regarding to duration of nose bleeding in the same table, it was clarified that, more than one third were $5 < 10$ minutes, less than one fifth were $10 < 15$ minutes and

the minority ≤ 20 minutes of the studied children. This finding was contradicted with **Mohammed et al., (2020)** that entitled “Knowledge and practice of epistaxis first aid among population in Riyadh, Saudi Arabia” and stated that, the minority (3.8%) of the studied children were 10 minutes and more than two fifth (43%) of them were 20 minutes. From researcher point of view, duration of bleeding depends on way of coping with bleeding and causes of epistaxis.

Concerning total mothers' knowledge of epistaxis, it was revealed that, less than three quarters of the studied mothers had good knowledge in post educational guidelines implementation. This finding was congruous with **Mahrous et al., (2019)** whose study entitled “Effect of an educational intervention about first aid measures on mothers' knowledge” which portrayed that, more than two thirds (66.5%) of the studied mothers' had good knowledge related to epistaxis after the implementation of the educational interventional program. This emphasized the importance of educational guidelines in improving mothers' knowledge as it provide them with the baseline for practicing first aid measures with proper skills.

Concerning mothers' total attitude of epistaxis, it was found that, more than three quarters of the studied mothers had positive attitude in post educational guidelines implementation. This finding was similar to the study done by **Ganfure et al., (2018)** that entitled “First aid knowledge, attitude, practice, and associated factors in Lideta sub-city Addis Ababa, Ethiopia” reported that, the majority of participant (82.0%) has positive attitude for first aid after performing educational program. This indicated the importance of educational guidelines for

improving mothers' attitude regarding epistaxis.

Regarding total reported practice of the studied mothers in pre/ post educational guidelines implementation. The majority of the studied mothers had satisfactory practices in post educational guideline implementation. This finding was consistent with **Saleem et al., (2018)** whose study entitled "Epistaxis: what do people know and what do they do?" and found that, the majority of participants had satisfactory practices in post educational guideline implementation. Regarding the researcher opinion the present study finding reflect the importance of conducting educational guideline for improving mothers' practice because it based on mother's needs.

The present study mentioned that, there was positive correlation between mothers' knowledge, attitude and practice of epistaxis management in pre/ post educational guidelines implementation. This finding was congruent with **Almulhim et al., (2017)** that entitled "Assessment of knowledge attitude and practice of epistaxis in Saudi population" and found that, there was positive correlation between knowledge, attitude and practice of participants. The researcher rationalized that, mothers' knowledge, attitude and practice factors related to each other's, as increasing knowledge led to positive attitude and correct done practices.

Conclusion:

There was a highly statistical significant improvement mothers' knowledge, attitude and reported practice scores regarding care of their children with epistaxis when compared with pre- educational guidelines implementation.

Recommendations:

- Raising awareness of simple management strategies among parents and primary care physicians could significantly reduce the stress and severity of disease.

- Preventive measures must be taken against epistaxis to decrease incidence of bleeding.
- Schools also should be interested about the diseased students and give them special care by nursing them routinely as they are more anemic than others and less attention in class.
- Future researches should be replicated on a large random sample in different setting which are needed for generalization of the obtained results.
- Further studies should be applied on all health problems related with epistaxis as hemorrhagic disorders and vitamins deficiency.
- Teaching programs comprise problem solving related to social media, TV and mobile abuse should be conducted broadly as children exposure to television or telephone screens for long periods can cause blood congestion which enhancing epistaxis.

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تأثير الإرشادات التعليمية علي أداء الأمهات تجاه رعاية أطفالهن الذين يعانون من النزيف الأنفي نورا عبد العليم إبراهيم - أمل عبد العزيز عبد السلام - راويه عبدالغني محمد- حنان السيد متولي

يعتبر النزيف الأنفي من أكثر المشاكل شيوعاً بين الأطفال. فكثيراً ما يصاب الأطفال بنزيف من الأنف أثناء اللعب. ويصاحب له بعض الأعراض مثل الدوخة، زغللة بالعين، زيادة معدل النبض والتنفس، قلة التركيز، قلة التحصيل الدراسي وفقد الشهية. لذلك هدفت الدراسة إلي تقييم تأثير الإرشادات التعليمية علي أداء الأمهات تجاه رعاية أطفالهن الذين يعانون من النزيف الأنفي. و أجريت هذه الدراسة في قسم الأنف والأذن والحنجرة والعيادات الخارجية التابعة له بمستشفى بنها الجامعي. وقد تم اخذ عينة غرضية مكونة من ٧٠ أم وأطفالهن الذين يعانون من النزيف الأنفي. وفقاً لمعايير الشمول والاستبعاد وقد تم تقسيم الأمهات إلى ١٢ مجموعة من ٥- ٦ أمهات في كل جلسة مع مراعاة التدابير الاحترازية. وتم تزويد كل أم بنسخة من الإرشادات التعليمية ومشاركة الفيديوهات على هاتفها المحمول أو تلقي نسخة من الفيديوهات على إسطوانة وأيضاً قامت الباحثة بإنشاء مجموعة على (الواتس أب) وإضافة الأمهات للتحفيز والتواصل والتفاعل والدعم والمتابعة. حيث كشفت النتائج ان أقل من ثلاثة أرباع الأمهات لديهن معلومات جيدة حول النزيف الأنفي بعد تطبيق الإرشادات التعليمية مقارنة بالأقلية منهن قبل تطبيق الإرشادات التعليمية. أكثر من ثلاثة أرباع الأمهات أظهرن سلوكيات إيجابية بعد تطبيق الإرشادات التعليمية مقارنة بأقل من الثلث منهن قبل تطبيق الإرشادات التعليمية. الغالبية العظمى من الأمهات كانت ممارساتهن مرضية بعد تطبيق الإرشادات التعليمية مقارنة بأقل من الثلث منهن قبل تطبيق الإرشادات التعليمية. هناك علاقة طردية ذات دلالة إحصائية بين مستوى معلومات، سلوكيات وممارسات الأمهات تجاه رعاية أطفالهن المصابين بالنزيف الأنفي قبل / بعد تطبيق الإرشادات التعليمية. وأوصت الدراسة بأن هناك حاجة لتطوير برامج تدريبية مستمرة حول التعامل مع النزيف الأنفي وتوفيرها للأمهات اللاتي تترددن على مراكز الأنف والأذن والحنجرة.