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Assessment of knowledge, attitude, and practice towards the first aid management of foreign body aspiration and obstruction among parents of children visited SPHMMC, Addis Ababa, Ethiopia

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ABSTRACT

Background: Foreign body aspiration (FBA) is a leading cause of accidental death in childhood. FBs in the aerodigestive tract pose diagnostic and therapeutic challenges, contributing significantly to morbidity and mortality. Limited community awareness regarding FBA presentation and management exacerbates the problem. Few studies exist in this area, highlighting the need for further research to improve parental awareness of immediate first aid interventions and prevent delays in healthcare access.

Methods: A descriptive cross-sectional study was conducted at St. Paul's hospital millennium medical college. Data were collected from 423 parents using pretested, structured, self-administered questionnaires. SPSS version 25 was used for data analysis. Multiple logistic regression analysis identified factors associated with knowledge, attitude, and practice regarding first aid management of FBA and obstruction.

Results: The 51.5% (218) of parents demonstrated adequate knowledge of FBA. Most (76.3%) had a positive attitude towards FBA first aid. 29.1% and 51.1% agreed and strongly agreed, respectively, that FBA requires immediate intervention. 17.7% (75) of parents reported a child experiencing FBA, of whom 70.7% (53) provided first aid. The majority (75.5% or 40) scored below 80% on FBA and obstruction first aid practice. Literate parents were 3.6 times more knowledgeable than illiterate parents (AOR: 3.612, 95% CI: 1.758, 7.420, $p \le 0.05$).

Conclusions: Parental knowledge and skills regarding first aid for FBA and obstruction in children are low. Educational interventions and increased awareness are crucial to reducing morbidity and mortality associated with FBA and obstruction in children.

Keywords: Foreign body aspiration, Awareness, Attitude, Practice, Ethiopia

INTRODUCTION

Inhaling foreign bodies or items into the respiratory tract is known as FBA.¹ FBA is frequently seen in pediatric populations.² Children often use their tongues to investigate new objects when they are between the ages of six months and four years old.³ A variety of foreign objects have been documented in the literature; toys, candies, gums, batteries, rocks, and magnets are the most commonly aspirated alien objects.⁴ In our setup a study showed plastic tips, seed, metallic tips, balloon inflating

tips, peanuts, chicken peas, and hijab pins in our setup.²⁵ Pediatric FBA is a potentially fatal illness that claims many lives each year, particularly in children under the age of two.⁵

Foreign body obstruction can result in compromised ventilation and oxygenation, which may cause a considerable amount of morbidity or death. Pulmonary hemorrhage is the second most common cause of mortality, behind hypoxic-ischemic brain damage.^{6,7} Neurologic impairment, pulmonary abscess,

bronchiectasis, and recurrent pneumonia are Complications following FBA.⁸⁻¹⁰ A comprehensive retrospective assessment conducted in the United States in 2016 found that the death rate for pediatric patients with FBA was 2.5 percent.⁸ An aspiration of a foreign body is a dramatic event that can have deadly consequences. The most effective preventive strategy to lower the problem's incidence is education.²⁵

According to the national safety council, there are 0.43 and 20.4 fatal and nonfatal choking incidents for every 100,000 American children in the general population, respectively. 9 The prevalence of FBA in our study setting is unknown. A previous study conducted in our area involving 81 patients revealed that only 18% of cases were reported within 24 hours of the occurrence, while 82% were reported after that time. Reasons for the delayed presentation included delayed transportation, delayed detection, and parents' or caregivers' lack of awareness and of them, 93.8% experienced complications, such as pneumothorax, atelectasis, and lung infections. 19

The prompt identification and appropriate management of FBA have produced in a significant reduction in the morbidity and mortality rates associated with FBA. 10-13

Parents are the primary caregivers for young children and FBA is a potentially fatal yet avoidable disorder in the pediatric age group that calls for greater parent education and awareness. One significant factor putting kids at increased risk for FBA and related problems is parents' lack of knowledge about risk factors and how to prevent FBA. To date, there are no published reports on awareness among parents about FBA in children in our local setting.

The objective of this study was to assess the knowledge, attitude, and practice towards the first aid management of FBA and obstruction among parents of children coming to St. Paul's hospital millennium medical college.

METHODS

Study setting and period

This study was conducted at St. Paul's hospital millennium medical college. SPHMMC is established in 1961 G.C. as a medical college and is a tertiary hospital under federal minister of health Ethiopia. With over 2800 staff, it provides clinical and preclinical training and specialized services. The pediatrics department is a core area, providing outpatient and inpatient services and academic activities. The study was conducted from September 1, 2023, to October 30, 2023 GC.

Study design

A descriptive-based cross-sectional study was carried out on parents of children visiting St Paul Hospital

Millennium Medical College, from September 1, 2023 to October 30, 2023 GC.

Sampling

Parents of children who visited SPHMMC were included in the study. A convenient sampling technique was used. Parents whose children were severely ill (admitted to ICU or ED(Red)) were excluded from the study.

The sample size was calculated using a single population proportion formula $n = (Z_{\alpha/2})^2 \times P(1-P)/d^2$

by taking the assumptions as $Z\alpha/2 = 1.96$ (standard normal value corresponding to 95% level of confidence), p=0.5 (estimate of prevalence for KAP of FBA first aid to be 50%, since there is no similar study conducted in the study area), and d (margin of error) =5%, so the n value is 384 and after adjusting 10% for possible nonresponse rate made the final sample size 423.

Data collection instruments and techniques

A self-structured and designed questionnaire was used, which was pre-tested before use for the present study. A questionnaire from previous investigations was modified and used. 17,20,28 The questionnaire has four parts. It included demographic profile (age, gender of parent, age of youngest child, number of kids, level of education of parents), questions regarding basic knowledge about foreign bodies (knowing about common age groups, foods that may cause FBA (carrot, seeds, walnut, hazelnut, grapes, cucumber, hard nuts), small toys, leaving kids unsupervised, letting the child hold the toy while crying, talking, or laughing), knowledge about the prevention of FBA, and first aid given after foreign body ingestion. The educational status was stratified into literate and illiterate, where illiterate means a person who is unable to read and write. The questionnaire was translated into Amharic as well, and the data collector explained the respondent and recorded the responses.

Operational definitions

FBA: the act of inhaling or breathing foreign bodies into the air system or aerodigestive system.

Adequate knowledge: a participant who scored a mean and above for knowledge questions. Inadequate knowledge: a participant who scored below the mean for knowledge questions.

Positive attitude: a participant who answered agree and strongly agree for attitude questions and scored mean or above

Negative attitude: a participant who answered disagree and strongly disagree for attitude questions and scored below the mean.

Good practice: a participant who scored 80% and above on practical questions (according to AHA pediatric basic life support and advanced life support 2020).

Poor practice: a participant who scored below 80% of practical questions (AHA, PBLS and PALS 2020)

First aid: help given to a foreign body aspirated child until full medical treatment is available.

Critically ill: those who are admitted to PICU and at ED (red patients)

Illiteracy: unable to read and write

Data analysis

Parents Knowledge of first aid provision for FBA and obstruction was assessed using nine questions. The questions were dichotomized into knowledgeable and not-knowledgeable. A score of the mean value or above was considered knowledgeable, while a score less than the mean value was taken as not-knowledgeable. Knowledge was taken as a dependent variable, and independent variables were the sex and age of participants, educational status, and occupation. The variables were taken from previously studied literature. Parents' attitude towards first aid management for a choking child was assessed using a four-point Likert scale. Strongly agree-4, agree-3, disagree-2, and strongly disagree-1. A score of 3 or 4 was given. For positive attitude, while 2 and 1 were for negative attitude, and the order of scoring for negative statements was reversed. Then, the score was dichotomized into positive and negative attitudes for each question. The practices of teachers were described and summarized using descriptive statistics.

The data was analyzed using the statistical package of social sciences (SPSS) version 27.0 for Microsoft Windows. Means, percentages, and ratios were calculated. Univariate and bivariate analyses between dependent and independent variables were performed using binary logistic regression. A multivariate analysis was done to control for the possible confounding variable. Microsoft excel 2019 was used to make graphs and charts. In this study, all tests with a p<0.05 were considered statistically significant. The results were presented using charts, tables, and texts.

Ethical consideration

Ethical clearance was obtained from the institutional review board of St Paul's hospital millennium medical college. Parents were informed about the aim, benefits, and possible inconveniences of the study. They were assured the information they gave would be confidential. Before data collection begins, verbal consent is obtained, and participants can withdraw at any time if the need arises.

RESULTS

Socio-demographic characteristics

As shown on Table 1 in this study, a total of 423 participants were involved, and the response rate was 100%. Most respondents, 225 (53.2%), were female, with a female-to-male ratio of 1.15:1. The average age of the respondents was 32.41 years. Regarding the educational level of the participants, the majority (379; 89.6%) are literate, 44 (10.4%) are illiterate, 43 (10.2%) are health professionals, and 380 (89.4%) are non-health professionals. The majority of participants (308; 72.8%) have more than 3 children, and most of them (201; 47.7%) are in the youngest child age group of 1-5 years.

Knowledge on first aid management of FBA and Obstruction among parents

The mean±SD knowledge score was 5.51 (1.02)/9 points, and only 51.5% of parents scored above the mean value of knowledge questions. Forty-eight (11.3%) of participants had a child aspirate a foreign body, and two hundred and thirty (68.8%) heard about FBA, and two hundred twenty-seven (53.7%) heard about first aid for FBA and obstruction. The majority of parents 276 (65.2%) correctly identified that children aged 1-5 years were at the highest risk of FBA. Most 320 (75.7%) agreed that children should not be given peanuts until they reach 4 years old. On the other hand, half of them (49.2%) disagreed the idea that the absence of choking is an assuring sign that the item is gone, and a majority proportion (68.3%) even more disagreed with the statement, "if the foreign body causes no symptoms, it is okay to delay removal." Furthermore, 82.7% of parents agreed that talking while chewing may lead to aspiration. Additionally, a great proportion of parents (67.8%) believed that both non-organic and organic items could cause aspiration in children.

The attitude of parents on first aid management of FBA and obstruction

The mean±SD attitude score was 13.8 (4.29)/24 points. Of the total participants, the majority (76.7%) of them have a positive attitude towards providing first aid for a child with FBA and obstruction. 233 (55.1%) and 123 (29.5%) of participants strongly agreed and agreed that FBA needs immediate management, respectively. Similarly, most of the respondents, 203 (48%) and 140 (33.1%) strongly agreed and agreed that everybody should know about first aid management of FBA, and obstruction, respectively. 164 (38.8) participants strongly disagree that choking causes death or a life-threatening condition if not treated. 127 (37%), agreed that it was possible to manage FBA at home without taking the victim to the health institution. The 92 (21.7%) strongly disagree that they should sweep their fingers blindly into the throat of a foreign body-aspirated victim, and 85 (20.1%) strongly agree with it. Majority of respondents, 125 (29.5%) and 121 (23.9%) disagreed or strongly disagreed with providing first aid without proper knowledge on how to do it.

Practice of parents on first aid management of FBA and obstruction

Of the participants, 75 (17.7%) faced foreign bodyaspirated or obstructed children. Among these, 53 (70.6%) had provided first aid. Based on practice for a child chocking with an object not visible, 9 (17%) gave a glass of water, while 5 (9.4%) did a finger sweep to identify and remove the object, and 14 (24.5%) slapped at the back of the neck, 11 (20.8%) did an abdominal thrust, and 14 (26.4%) slapped at the back, and 1 (1.9%) took the child to the hospital. Based on the assessed practical question for which a child obstructed, developed talking and breathing difficulties with a visible and accessible foreign body, 8 (15.1%) gave a glass of water, while 13 (24.5%) did a finger sweep to identify and remove the object, 10 and slapped at the back of the neck, 10 (18.9%) did an abdominal thrust, 11 (20.8%) slapped at the back, and 1 (1.9%) did not know what to do or took to the hospital. Based on the assessed practical question for a child with choking and coughing only 10 (18.9%) gave a glass of water, while 6 (11.3%) did finger sweep to identify and remove objects, 7 and slapped at back of the neck, 10 (18.9%) did an abdominal thrust, 18 (34%), slapped at back, and 2 (3.8%) didn't know what to do. Based on the assessed practical question for child became obstructed, became breathless, and became unconscious.

The 15 (28.3%) did CPR, while 8 (15.1%) did a finger sweep to identify and remove objects, and 5 (9.4%) slapped at the back of the neck, 7 (13.2%) did an abdominal thrust, 8 (15.1%) slapped at the back, and 10 (18.9%) did not know what to do or took to the hospital.

Overall, 75.5% of study participants scored below 80% of practice towards FBA and obstruction, and they are considered to have poor practice towards first aid management of FBA and obstruction.

Factors affecting the knowledge, attitude and practice of parents on first aid management of FBA and obstruction

Binary and multiple logistic regression analyses were done to analyze factors associated with knowledge, attitude, and practice in providing first aid management towards FBA and obstruction. In the binary logistic regression analysis, sex, age, occupation, and educational status were all associated with knowledge, attitude, and practice of first aid management for a foreign-aspirated child. Parents' knowledge of first aid management of FBA and obstruction was significantly correlated with literacy and health professionalism (AOR: 3.612, 95% CI: 1.758, 7.420, p≤0.05) and (AOR: 3.166, 95% CI: 1.453, 6.263, p≤0.05), respectively. Health professionals were significantly associated with parents' practices (AOR: 3.317, 95% CI: 0.834, 12.263, p≤0.05). The demographic data of parents has no association with their attitude and practice of FBAO first aid.

Variables **Frequency** Percentage (%) Male 225 53.2 Gender Female 198 46.8 50.3 18-30 213 Age (in years) 31-50 171 40.4 Above 50 39 9.2 Married 353 83.5 11.3 Single 48 **Marital status** Divorced 21 5 Widowed 0.2 1 Orthodox 218 52 24.3 Muslim 103 Religion 20.8 Protestant 88 Catholic 9 2.1 Others 3 0.7 Literate 379 89.6 Level of education Illiterate 44 10.4 43 Health professional 10.2 **Occupation** Non-health professional 378 89.4 27 1-3 114 Number of children >3 308 72.8 <1 146 34.5 Age of the youngest 1-5 201 47.5 child (in years) 6-10 49 11.6 27 6.4 >10

Table 1: Socio-demographic characteristics.

 $\label{thm:construction} \textbf{Table 2: Knowledge on FBA and obstruction among parents}.$

Variables	Response	N	Percentage (%)
Have any of your children aspirated a foreign	Yes	48	11.3
body?	No	375	88.7
II I I I I I I I I I I I I I I I I I I	Yes	293	68.8
Have you heard about FBA?	No	130	30.7
Heard about first aid related to FBA and	Yes	227	53.7
FBAO	No	195	46.1
Children con conjusto foncion hadica	Yes	366	86.5
Children can aspirate foreign bodies.	No	58	13.5
	<1	116	27.4
At what age children are at the highest risk to	1-5	276	65.2
aspirate foreign bodies? (in years)	6-10	30	7.1
	>10	1	0.2
Children shouldn't be offered peanut seeds	Yes	320	75.7
until they are 4 years old	No	103	24.3
The absence of choking is an assuring sign	Yes	215	50.8
that the item has gone away	No	208	49.2
If the foreign body causes no symptoms, it is	Yes	134	31.7
okay to delay the removal	No	289	68.3
Talking while chewing may lead to aspiration	Yes	350	82.7
Taiking while thewing may lead to aspir ation	No	73	17.3
X-rays can detect all foreign bodies	Yes	260	61.5
A-rays can detect an foreign bodies	No	163	38.5
	Organic like nuts, seeds	119	28.1
Which of the following items are children at risk to aspirate?	Non-organic like small plastic toys	15	3.5
	Both	287	67.8
	Unable to stand (falling)	26	6.1
	Difficulty of producing sounds	79	18.7
What types of symptoms do you observe from a person facing FBA and obstructed?	Inability to cough forcefully	59	13.9
a person facing FDA and obstructed?	Hands clutched to the throat	36	8.5
	Difficulty of breathing	134	31.7
	All	89	21

Table 3: Attitude on first aid management of FBA and obstruction among parents.

Statements	Strongly disagree (%)	Disagree (%)	Agree (%)	Strongly agree (%)
FBA should need immediate management	46 (10.9)	20 (4.7)	123 (29.1)	233 (55.1)
Everyone should know about first aid management of FBA and obstruction	41 (9.7)	39 (9.2)	140 (33.1)	203 (48)
FBA does not cause death/life-threatening conditions even if not treated	164 (38.8)	157 (37.1)	45 (10.6)	57 (13.5)
It is possible to manage FBA and obstruction at home without taking a victim to the health care setup	87 (20.6)	176 (41.6)	127 (30)	33 (7.8)
We should sweep our fingers blindly into the throat of foreign body aspirated and obstructed victim and take the victim to health institution	92 (21.7)	100 (23.6)	146 (34.5)	85 (20.1)
You must not provide FBA and obstruction first aid without knowledge	101 (23.9)	125 (29.6)	124 (29.3)	73 (17.3)
If first aid is not given to foreign body obstruction within golden time, it may lead to death	59 (13.9)	21 (5.0)	173 (40.9)	170 (40.2)

Table 4: Response of parents practice on FBAO first aid management.

Variables		N	Percentages (%)
Have you food EDA on obstruction	Yes	75	17.7
Have you faced FBA or obstruction	No	348	82.3
Have you given first aid for FBA or	Yes	53	12.5
Obstruction child (if yes proceed to q 3 to 6)	No	371	87.7
	Giving a glass of water	9	17
Action taken when faced child	Do a finger sweep to identify and remove the object	5	9.4
choking with complete Airway	Hitting at the back of the neck	13	24.5
obstruction, object no visible	Abdominal thrust	11	20.8
	Slapping at the back	14	26.4
	Took to hospital	1	1.9
	Giving a glass of water	8	15.1
Action taken when faced with a child	Do a finger sweep to identify and remove the object	13	24.5
obstructed, develop talking and breathing difficulty with a visible	Hitting at the back of the neck	10	18.9
and accessible foreign body	Abdominal thrust	10	18.9
and accessible foreign body	Slapping at the back	11	20.8
	Took to hospital	1	1.9
	Giving a glass of water	10	18.9
A stion to hon whom a shill is shaking	Do a finger sweep to identify and remove the object	6	11.3
Action taken when a child is choking and coughing	Hitting at the back of the neck	7	13.2
and coughing	Abdominal thrust	10	18.9
	Slapping at the back	18	34
	Took to hospital	2	3.8
	Do CPR	15	28.3
The shill shotometed become	Do a finger sweep to identify and remove the object	8	15.1
The child obstructed, became breathlessness and unconsciousness	Hitting at the back of the neck	5	9.4
oreaunessness and unconsciousness	Abdominal thrust	7	13.2
	Slapping at the back	8	15.1
	Took to hospital	10	18.9

Table 5: Binary and multiple logistic regression analysis of selected factors affecting knowledge on FBA and obstruction.

Variables		Knowledge level		Linear regression (95% CI)			
		Adequate N (%)	Inadequate N (%)	COR (p<0.25)	P value	AOR (p<0.05)	P value
	Male	103 (24.3)	95 (22.5)	1		1	
Sex	Female	117 (27.7)	108 (25.5)	1.010 (0.836-1.196)	0.997	1.075 (0.721-1.623)	0.722
Age (in years)	<30	104 (24.6)	109 (28.8)	1		1	
	30-50	109 (28.8)	89 (21)	0.875 (0.268-2.851)	0.824	0.591 (0.160-2.185)	0.431
	>50	7 (1.7)	5 (1.18)	1.400	0.566	1.335	0.682
	Illiterate	11 (2.6)	33 (7.8)	1		1	
Education	Literate	209 (49.4)	170 (40)	3.688 (1.810-7.515)	< 0.001+	3.612 (1.758-7.420)	<0.001++
Occupation	Non health professional	188 (44.4)	192 (45.3)	1		1	
	Health professional	32 (7.6)	11 (2.6)	2.971 (1.455-6.067)	0.003+	3.016 (1.453-6.263)	0.003++

^{*++ =} significant at p≤0.05, += associated at p≤0.25, COR-crude odes ration, AOR-adjusted odes ration.

Table 6: Binary and multiple logistic regression analysis of selected factors affecting attitude on FBA and obstruction.

		Attitude level		Linear regression (95% CI)			
Variables	Variables		Inadequate N (%)	COR (p<0.25)	P value	AOR (p<0.05)	P value
Sex	Male	146 (34.5)	52 (12.2)	1		1	
Sex	Female	158 (37.3)	67 (15.8)	1.191 (0.777-1.824)	0.423	1.172	0.476
	<30	150 (35.4)	63 (14.9)	1		1	
Age	30-50	145 (34.2)	53 (12.5)	1.149 (0.747-1.768)	0.527	1.141	0.559
(in years)	>50	9 (2.1)	3 (0.7)	1.260 (0.330-4.809)	0.735	0.591 (0.160-2.185)	0.431
	Illiterate	21 (4.9)	23 (5.4)	1		1	
Education	Literate	283 (66.9)	96 (22.7)	3.229 (1.711-6.094)	<0.001 +	1.198 (0.595-2.413)	0.613
Occupation	Non health professional	274 (64.8)	106 (25.1)	1		1	
	Health professional	30 (7.1)	13 (3.0)	1.120 (0.562-2.229)	< 0.001	1.224 (0.575-2.238)	0.003+ +

^{*++ =} significant at p≤0.05, += associated at p≤0.25, COR-crude odes ration, AOR-adjusted odes ration.

Table 7: Binary and multiple logistic regression analysis of selected factors affecting practice on FBA and obstruction.

Variables		Practice level		Linear regression (95% CI)			
		Adequate N (%)	Inadequate N (%)	COR (p<0.25)	P value	AOR (p<0.05)	P value
	Male	6 (11.3)	16 (30.2)	1		1	
Sex	Female	7 (13.2)	24 (45.2)	1,268 (0.364-4.536)	0.696	1,755 (0.442-6.966)	0.424
	<30	6 (11.3)	21 (39.6)	1		1	
Age (in years)	30-50	7 (13.2)	18 (34)	0.875 (0.268-2.851)	0.824	0.591 (0.160-2.185)	0.431
	>50	0 (0)	1 (1.9)	1.361 (0.386-4.794)	0.566	1	0.00
	Illiterate	0 (0)	1 (1.9)	1		1	
Education	Literate	13 (24.5)	39 (73.6)	1.122 (0.0374-25.4)	0.9753	0.999 (0.0325-24.8)	0.982
Occupation	Non health professional	15 (28.3)	27 (50.9)	1		1	
	Health professional	7 (13.2)	4 (7.5)	3.150.250 (0.791-12.172)	0.104+	3.317 (0.834- 12.263)	0.008++

^{*++=}significant at p \leq 0.05, += associated at p \leq 0.25, COR-crude odes ration, AOR-adjusted odes ration.

DISCUSSION

FBA is considered the leading cause of morbidity and mortality among young children. ^{15,16} Based on the report by CDC (Center for disease control), it is among the leading causes of fatal home accidents in children between one and four years of age (between 2000 and 2006). ³⁰ Hence, assessing and increasing the awareness of parents regarding FBA and obstruction has a vital role in decreasing the rate of morbidity and mortality associated with FBA. ^{10,15,17,18} In this study, we measured knowledge, attitude, and practice among parents towards first aid

management of FBA and obstruction for children.

Only 51.5% of parents had adequate knowledge about FBA and obstruction. Our results were consistent with the findings in Turkey; where 50% of the mothers who participated in the study had adequate information on FBA. On the other hand, the study done in Al Qassim, Saudi Arabia showed against our finding, where 36.9% of parents found good knowledge.²⁰

In our study, a significant majority (68.8%) of parents were familiar with FBA.

As parents' knowledge plays an important role in lowering the incidence of FBA among children, we assessed their knowledge in our study. We found that most parents (75.7%) believed that children should not be introduced to peanuts before the age of four, and a vast majority (67.8%) recognized nuts, seeds, and plastic toys as potential aspiration hazards. These findings are consistent with several international and local studies. 2,14,20

In our study, the majority (76.7%) of them had a positive attitude towards providing first aid for a child with FBA and obstruction. It is slightly lower than kindergarten teachers in Addis Ababa governmental schools with 95.1% having a positive attitude towards choking first aid.17 This difference may be due to difference in education level. In our study, 84.6% of participants agreed that FBA needs immediate management.

Similarly, a significant majority of respondents (48%) strongly agreed, and an additional 33.1% agreed, that knowledge of first-aid management for FBA and obstruction is essential for everyone, which is comparable with kindergarten teachers, where 80% of the participants agreed that everyone should have basic first aid knowledge.17

With regard to parents' FBA practices, our study found that only 24.5% of the 53 parents who participated had scores above 80%. This is similar to a study conducted in Makkah, where only 22.4% of participants had good practices.²⁹ and marginally lower than the Al Qassim study, which discovered that 44.7% of parents had good FBA practices and 55.3% had poor behaviors.²⁰ This may be due to a low literacy level. Multiple logistic regression analysis showed that literate parents were 3.6 times more knowledgeable than those who were illiterate. (AOR:3.612, 95% CI: 1.758, 7.420, p≤0.05).

Furthermore, a significant number of parents used risky and ineffective first aid techniques for treating patients who had aspirated foreign bodies or were obstructed, such as tapping the back of the neck, blindly sticking fingers down the victim's throat, and offering water to drink. Based on these results, it is crucial to educate the public and make them aware of the dangers and poor behaviors that could cause this incident in order to lower the risk and incidence of FBA.

Limitations

One of the limitations is the study design being crosssectional so, that cause-and-effect association cannot be studied. Second, there may be a bias related to participants' level of understanding since the data collection tool was a self-administered questionnaire and interview for those who cannot read. Different mechanisms were tried to minimize bias by performing pre-tests before actual data collection.

CONCLUSION

As there are very few studies in our country, the purpose of this research was to examine the parents knowledge, attitudes, and practice toward the first aid management of FBA and obstruction. It is hoped that the information gained from this study will assist the concerned bodies who are responsible. Since FBA in children is an avoidable condition preventive care awareness by health care professionals in general and training and educating of the families is very important. FBA awareness needs to be enhanced, especially among mothers, through the use of both visual and verbal tools to reduce mortality and prevent complications. Women should be the primary target population for this educational initiative, as higher female educational attainment is associated with improved public welfare.

Recommendations

This study identified low awareness and practice regarding FBA among the target population, likely attributed by high illiteracy rates. So based on the identified gaps form the study the following recommendation are made: Most importantly, physicians and health care workers can play a significant role in spreading awareness about FBA in the community. Sensitizing the community toward the need of awareness regarding FBA through educational campaigns involving during routine visits to the health care settings. Educational campaign or educational message should be carried out through television and radio broadcasts, leaflets, interviews in newspapers, community gatherings, and mobile phone messaging services to reach a wider audience. Creating visual aids (pictograms, short videos, demonstrations) alongside translated messages in local languages to overcome literacy barriers. Integrate FBA awareness into existing programs like parenting workshops, maternal health initiatives, and early childhood development programs.

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Institutional Ethics Committee

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