

Original Research

Knowledge, Attitudes and Practices of Parents Regarding Convulsion in Children Under Five Years in Muea Community, Cameroon

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ABSTRACT

Background

Convulsion is an event that can emotionally traumatise most parents. Inadequate knowledge regarding convulsion can cause parental anxiety.

Aim

This research sought to investigate the knowledge, attitudes, concerns and practices of parents regarding convulsion in children under five-years.

Methods

The study employed a community based cross-sectional survey design. Purposive, convenient and snowball samplings were used to select the study site and enroll participants to the study. The study was conducted in Muea Community, Buea Health District in Fako Division, South West Region of Cameroon. The study participants were made up of parents of children under 5-years of age and who had witnessed convulsion in a child. Respondents who met the inclusion criteria and gave their consent to participate in the study were selected. Data was collected using a semi-structured questionnaire made up of both open and closed-ended questions. Data was collected on the knowledge, attitudes, concerns and practices of parents regarding convulsions in children. Data collected was entered using a pre-designed EpiData version 3.1 and data from open-ended questions were analysed using systematic process of thematic analysis.

Results

A total of 100 respondents participated in the study. The study revealed that more than half of the respondents 53.7% had good knowledge on convulsion, 61.9% of the respondents had positive attitudes towards convulsion and 51.4% of parents had good practices regarding convulsion. This study also revealed that knowledge of convulsion had an association ($p=0.05$) with gender and marital status but was not dependent ($p>0.05$) on age and level of school attained.

Conclusion

The study concluded that even though more than half of the respondents were knowledgeable on convulsion, there is still need for proper parental education as inappropriate attitudes and practices like putting the child's head in the toilet pit, which can lead to complications are still being practiced.

Keywords

Knowledge; Convulsion; Attitudes; Concerns practices; Children under five; Parents.

INTRODUCTION

Febrile convulsion (FC) also known as febrile seizure (FS) or simply convulsion is the most frequently occurring type of convulsion which causes most of hospital admissions in children

under five years of age.¹ Convulsions are usually due to high body temperature and affects 4-10% of children under 5-years of age.² To parents it is an extremely frightening, shocking and life-threatening scenario which is traumatizing emotionally and anxiety-provoking.³ These feelings could be due to the fact that parents have

poor knowledge on convulsion,⁴ which could be the reason for the implementation of inadequate first aid measures such as harmful traditional practices.⁵ Some parents may lack the knowledge or adequate preparedness to offer first aid to a child who is having a seizure.⁵ Parental anxiety and misconceptions about FC contribute to a significant decrease in the quality of life of children and their love ones after a FC.⁶ Febrile convulsion usually occurs in children aged three months to five-years, commonly associated with fever but without evidence of intracranial infection or defined cause for the seizure. In developing countries the prevalence varied between 1.33% and 11.61%, whereas the reported prevalence rates from developed countries was between 2% and 5%.⁷ This variation in prevalence may be due to differences in case definitions, ascertainment methods, geographical variation and cultural factors. In Cameroon a study conducted in Yaounde revealed that the proportion of children admitted with FC was 6.1% with the mean age being 24.6-months.⁸ In Volta Regional hospital Ghana, Statistics show that FC in children under five years accounted about forty to 55% of admissions in 2013.⁹

Generally, convulsions occur at home and as such, parents are the first involved in their management. Hence, knowledge on FC is important for parents, particularly knowledge regarding when it will occur, manifestations, how to manage the seizure, and how seizure can be prevented.¹⁰ In addition, correct and adequate knowledge of the association between fever and FC, and its usual good prognosis are important in lessening parental anxiety and apprehension associated with FC. Of significant importance is the knowledge on First Aid measures to be implemented when FC occurs at home. Comprehending parental knowledge, attitudes and practices regarding FC is vital in planning and delivering health education to parents during infant welfare clinics (IWC) or child well visits.⁵

It is important to note that parental knowledge on proper home management of fever and FC can prevent about 65% of pediatrics emergencies occurring in health facilities due to FC.¹¹ Studies have revealed that parents in less developed countries lack knowledge on convulsion thus, are frightened when faced with the dramatic manifestations of convulsion and hence, perform inappropriate first aid measures.¹² Meanwhile convulsion would have resolved spontaneously with minimal morbidity and mortality as obtained in technologically advanced countries. It is worth noting that various emergency home therapies employed in developing countries lead to poor outcomes.¹³ Fatunde et al¹⁴ identified some of the harmful effects of traditional practices on the child such as prolonged hospitalisation, aspiration pneumonitis and burns among others.¹⁴ Many studies have been conducted on the etiology, manifestations and management approaches of convulsions, but very little information is available about parental knowledge, attitudes and practices.¹⁵ This informed the objectives of this study; specifically, we aimed at investigating the knowledge of parents on convulsion, their attitudes, concerns and the measures they take when faced with an episode of convulsion in the child. This study will provide a framework which will serve as a guide for health care providers especially nurses to plan and deliver appropriate health education to parents.⁵ This will go a long way to ensure that re-

quired health information regarding FC is given to parents. This will in turn reduce harmful traditional practices, and hence, curb complications associated with febrile seizures in less developed countries.

MATERIALS AND METHODS

A community-based cross-sectional study was conducted from the 28th of October, 2017 to 30th of June, 2018 to investigate the knowledge of parents on convulsion, their attitudes and practices regarding convulsion in the child. Both qualitative and quantitative approaches were employed to collect and process data. A questionnaire made-up of both open and closed ended questions was used to collect data. The target population was made up of all parents residing in Muea Community in the Buea Health District, Cameroon having children aged 0-5-years and who had experienced their child convulsing. All parents who have managed convulsion in a child age 0-5-years and gave their consent to participate in the study were included; eligible participants were recruited from the Muea Community, a rural area in Fako Division of the South West Region of Cameroon. Most of the people living in Muea are of diverse tribes and cultures with most of the inhabitants being farmers.

A sample of 100 participants living in Muea community who were parents or caregivers of children age 0-5-years selected by purposive and consecutive convenient sampling participated in the study. Parents of children aged 0-5-years were purposively selected to participate in the study according to their availability. In addition, the snow-ball approach was used whereby after discussion with a parent; he/she directed us to another parent who had managed convulsion in a child under 5-years of age. Data was collected on participants' knowledge, attitudes and practices regarding convulsion in children under the age of 5-years. Participants' knowledge on convulsion was evaluated using ten questions each given a point, making a total of ten points. A score of 0-4 on 10 (00-40%) was referred to as not knowledgeable (bad knowledge) while a score of 5-10(50-100%) was referred to as knowledgeable (good knowledge). Similarly, attitudes and practices were scored on a scale of 9 and 14 respectively. For attitudes, participants with scores of 5 and above on 9 (56-100%) were considered to have positive (good) attitudes while those with scores of 4 and below on 9 (00-44%) had negative (bad) attitudes towards convulsion. Fair practice was rated as 7-9 on 14 (50-64%) and positive (good) practice was given a score of 10 and above on 14 (71-100%) while negative (bad) practice was given 6 and below points on 14 (0-43%).

Before administering, the questionnaire was pre-tested by administering 10 copies to ten parents who were not part of the study population. Their responses confirmed the clarity and validity of the questions. Copies of the questionnaire were then administered to the study participants who completed the various sections of the questionnaire. The investigator read the questions for those who could not read and their responses were written down.

This study was authorised by the Department of Nursing, Faculty of Health Sciences, University of Buea, Cameroon. Administrative authorisation was first obtained from the Regional Delegation of Public Health (No. 477/107) and then from the heads of the various health facilities. Before responding to the questionnaire each respondent gave her consent by signing the consent form.

Data collected was entered into Epi Data Version 3.1 and analysed using statistical package for the social sciences (SPSS) version 21.0. Data was analysed using the quantitative method. Open-ended questions were analysed using the systematic process of thematic analysis where ideas or viewpoints were grouped under umbrella terms or key words. Chi-Square (χ^2) test of equality of proportion was used to compare proportions for significant difference as well as to measure the association between the study indicators and background information. Data was presented using frequency table and charts. All statistics was discussed at the 95% confidence level (CL), Alpha (α)=0.05.¹⁶

Using frequency tables and charts, the percentages of responses were determined.

RESULTS

All 100 respondents enrolled, participated in the study giving a response rate of 100%. The mean age of the participants was 29.2 and median 29.0, implying that half of the respondents were aged less than 29-years. Female respondents were the most represented 93(93.0%) and most respondents 69 (69%) were married. Fifty-seven percent (57%) of the participants had attained secondary level of education while 1(1%) of them had never been to school. Only 18 (18%) of the respondents were employed while most respondents 81(81%) were Christians (Table 1).

Table 1. Demographic Characteristics of Participants

Characteristic	No (%)
Age	>29 years 50(50)
	<29 years 50(50)
Gender	Female 93(93)
	Male 7(7.0)
Marital Status	Married 69(69)
	Single 31(31)
Level of education	Primary 31(31)
	Secondary 57(57)
	Tertiary 11(11)
	No Schooling 1(1)
Occupation	Employed 18(18)
	Not Employed 82(82) 20(27.0)
Religion	Christianity 81(81)
	Others 19(19)

In aggregate, slightly more than half of the respondents were knowledgeable about convulsion with weight of 53.7%. Most respondents 74 (74%) indicated that fever is the cause of convulsion while others 26 (26%) believed it was caused by malaria. Majority of the participants 70 (70%) said shivering is a manifestation of convulsion in the child. Eighty-one subjects (81%), perceived that traditional herbs were needed for the management of convulsion, 76 (76%) perceived that it was a life-threatening event and up to 34 (34%) indicated that convulsion can cause brain damage. Also 80% of the respondents added that there is stiffening of the child's extremities and eyes roll backwards (Table 2).

The study revealed that knowledge of convulsion had an association ($p=0.05$) with gender and marital status but was not dependent ($p>0.05$) on age and level of school attained. It was

Table 2. Participants' Knowledge on Convulsion

Items	Responses		
	Yes	No	Don't Know
Causes	Fever is the cause of convulsion 74.0% (74)	26.0% (26)	0.0% (0)
	Malaria is the cause of convulsion 26.0% (26)	74.0% (74)	0.0% (0)
Perceptions	Convulsion is epilepsy 11.0% (11)	88.0% (88)	1.0% (1)
	Convulsion is a life threatening event 76.0%(76)	21.0%(21)	3.0%(3)
	Convulsion can cause brain damage 34.0%(34)	53.0%(53)	13.0%(13)
	Traditional herbs are needed for the management of convulsion 81.0%(81)	14.0%(14)	5.0%(5)
	Convulsion is rare after age five 26.0%(26)	17.0%(17)	56.0%(56)
Manifestation	Children with convulsions can receive immun-ization on schedule 11.0%(11)	13.0%(13)	75.0%(75)
	Every child with convulsion will have another convulsion attack 39.0%(39)	20.0%(20)	40.0%(40)
	Fainting spell 25.0%(25)	75.0%(75)	0.0%(0)
MRS	Shaking 70.0%(70)	30.0%(3)	0.0%(0)
	Suffocation 1.0%(1)	99.0%(99)	0.0%(0)
	Correct 53.7%(644)	Wrong 30%(360)	Non-response 16.3%(196)

statistically obvious that female were more knowledgeable than the male with proportions of 71 (76.3%) and 3 (42.9%) respectively (Table 3). The married were also more knowledgeable 56 (81.2%) than those who were single 18 (58.1%) (Table 4).

Table 3. Association between Causes of Convulsion and Gender

Gender	Stats	What Causes Convulsion		Total
		Fever	Malaria	
Male	n	3	4	7
	%	42.9%	57.1%	100.0%
Female	n	71	22	93
	%	76.3%	23.7%	100.0%
Total	n	74	26	100
	%	74.0%	26.0%	100.0%

χ^2 -test: $\chi^2=3.794$; df=1; p=0.049

Table 4. Association between Causes of Convulsion and Marital Status

Age	Stats	What Causes Convulsion		Total
		Fever	Malaria	
Married	n	56	13	69
	%	81.2%	18.8%	100.0%
Single	n	18	13	31
	%	58.1%	41.9%	100.0%
Total	n	74	26	100
	%	74.0%	26.0%	100.0%

χ^2 -test: $\chi^2=5.930$; df=1; p=0.015

In aggregate, more than half 61.9% of the respondents had positive attitudes towards convulsion. For participants with positive attitudes towards convulsion, majority 95 (95%) attested to the fact that children with convulsion required frequent temperature monitoring and also that the child needs more attention and care 93 (93%). Among those with negative attitudes 87 (87%) believed that folk medicine was needed during the convulsive at-

tack, while some 13 (13%) believed it's a shameful thing to have a child with convulsion, 30.0% believed it's due to possession of evil spirit. Other attitudes reported were panic and fear (95%) and run away from the child (2%) (Table 5).

In aggregate, 51.4% of parents had good practices towards convulsion. Majority agreed to lower the child's body temperature 97 (97%), give Paracetamol syrup 92 (92%) and 99 (99%) said they will rush the child to the hospital. However, some respondents 92 (92%) reported opening child's clenched teeth to put something in the mouth, others 67 (67%) reported restraining the convulsing child. Sixty-six (66%) of the respondents did not place the child on a safe surface and 68 (68%) did not place the child on his or her side. Majority 73 (73%) did not keep calm during the event. Other interventions that the parents reported were putting the child's head into the toilet pit 40 (40%), applying black "Mayanga and masepo" on the child's body 32 (32%), bleeding the child on the forehead 2 (2%) amongst others (Table 6).

Fear of death was the major concern for most participants 94 (94%), followed by recurrence 92 (92%), fear of future epilepsy 61 (61%), mental retardation 37 (37%) and physical disability 32 (32%).

DISCUSSION

This study aimed at investigating the knowledge, attitudes and practices of parents regarding the home manage of convulsion in children under five-years of age. Worthy of note is the fact that proper planning and delivery of appropriate health education to parents by nurses will create awareness in parents and upgrade their knowledge. This will in turn reduce harmful traditional practices, and hence, curb the morbidity and mortality associated with febrile seizures in less developed countries.

According to the findings of this study, female respondents were the most represented. This is in line with the study of Abeysekara et al¹⁵ who had a larger proportion of female respondents. This could be explained by the fact that females are more

Table 5. Participants' Attitudes towards Convulsion in Children

Items	Responses		
	Yes	No	Don't Know
Convulsion is due to possession by evil spirits	74.0% (74)	26.0% (26)	0.0% (0)
Convulsion will become epilepsy	26.0% (26)	74.0% (74)	0.0% (0)
Convulsion is contagious	11.0% (11)	88.0% (88)	1.0% (1)
Parents should take their child's temperature frequently	76.0% (76)	21.0% (21)	3.0% (3)
"Country medicine" is also necessary during a convulsive attack	34.0% (34)	53.0% (53)	13.0% (13)
More attention and care are needed for a child with convulsion	81.0% (81)	14.0% (14)	5.0% (5)
It is shameful to have a child with convulsion	26.0% (26)	17.0% (17)	56.0% (56)
Parents of children with convulsion should be avoided	11.0% (11)	13.0% (13)	75.0% (75)
MRS	Positive	Negative	Undecided
	495	203	102
N=100; N _{responses} =800	61.9%	25.4%	12.7%

Table 6. Participants' Attitudes towards Convulsion in Children

Items	Responses		
	Yes	No	Don't Know
Lower the child's body temperature	97.0%(97)	1.0%(1)	2.0%(2)
Using cold water	66.0%(66)	44%(44)	0.0%(0)
Using luke warm water	34.0%(34)	66.0%(66)	0%(0)
Give paracetamol syrup	92.0%(92)	7.0%(7)	1.0%(1)
Protect the child on a soft and safe surface	21.0%(21)	66.0%(66)	13.0%(13)
Place the child on his or her side	16.0%(16)	68.0%(68)	13.0%(13)
Keep calm	27.0%(27)	73.0%(73)	0%(0)
Observe seizure manifestation and duration	15.0%(15)	80.0%(80)	5.0%(5)
Rush the child to the hospital	99.0%(98)	1.0%(1)	0%(0)
Call for help	99.0%(99)	1.0%(1)	0%(0)
Shake and rouse the convulsing child	34.0%(34)	62.0%(62)	4.0%(4)
Pry (open) the convulsing child's clenched teeth apart and put something in his/her mouth	92.0%(92)	6.0%(6)	2.0%(2)
Attempt to do mouth to mouth resuscitation	13.0%(13)	77.0%(77)	10.0%(10)
Suck discharge from the child's nose and mouth	14.0%(14)	77.0%(77)	9.0%(9)
Restrain the convulsing child	67.0%(67)	25.0%(25)	8.0%(8)
I don't know what to do	1.0%(4)	99.0%(96)	0%(0)
MRS	Good	Bad	Don't know
	51.4%(823)	44.4%(710)	4.2(67)

involved in child care. Again, the results showed that females were more knowledgeable than the men. This could be probably due to the fact that females are more engaged in child care and as such, more experienced in matters concerning children's health. Also, it was found in this study that, the highest level of school attained by majority of the respondents was secondary education. This finding is in line with that conducted by Bogne et al¹² whereby 57% of the study participants were found to have attended secondary education. Nevertheless, only a fewer proportion was found to have attended primary school as compared to this study. This is probably due to the fact that this study was conducted in a rural area where literacy rate is lower.

Concerning the participants' knowledge on FC, the study showed that most participants were knowledgeable. For instance, majority of the participants indicated fever being the cause of convulsion. This result coincides with those of Abeysekara et al¹⁵ and Agin et al¹⁷ where majority (91.45% and 55.1% respectively) of their respondents attributed fever as the cause of FC. These finding contradicts that of Anjum et al¹⁸ who found out that 58% of the respondents did not know convulsion could be due to fever. Also, the findings of this study showed that parents have good knowledge of the signs and symptoms of the condition such as shaking, stiffening of the extremities and eyes rolling backwards. This supports the findings of similar studies where the majority of the mothers (70-96.5%) gave good description of the illness.^{9,19} This could be due to the fact that they are always present at the time of seizure. Furthermore, most parents did not think that convulsion is epilepsy which contradicts that of Agin et al¹⁷ in which a high proportion of their study population perceived febrile convulsion as epilepsy. Our study revealed that most respondents perceived convulsion to be life-threatening. This finding ties with that

of Agin et al¹⁷ where majority of their subjects (87.9%) believed convulsion is life-threatening. This could be due to the fact that parents are usually not aware of the benign nature of convulsion.¹⁷ This study also showed that only one third of the subjects thought FC could cause brain damage. This slightly contradicts that conducted by Agin et al¹⁷ where almost all (96%) of respondents felt FC could cause brain injury.¹⁷ However, there is no association between any type of febrile seizure and later development of neurological deficit.²⁰ Nevertheless, some parents perceived convulsion to occur again. This is in accordance with the findings of Agin et al¹⁷ in which majority of the respondents showed significant concerns of recurrence. However, recurrence rate for FS is low for most children but one-third will; with age being the strongest and most consistent risk factor Hall-Parkinson et al.⁵ More than half of the risk is realised during the first year after initial FS and over 90% recur within two years. Risk factors for recurrence are family history of febrile seizures,²¹ low temperature at initial FS and being less than 18-months of age.^{5,22} Therefore, it should be remembered that an episode of fever is in fact the only time that the child is at risk of recurrence. Overall, this study found that parents had good knowledge on FC, this overall finding is similar to those of Abotsi et al⁹ and Anigilaje et al¹³ who found that parents have good understanding of FC in children under five. However, this finding contradicts that of Shibebe et al²³ in Babylon, where less than half of the participants (43%) had good knowledge on FC. In addition, this finding contradicts that of Abeysekara et al¹⁵ who found that more than half (77.9%) of the parents were unaware of the entity of febrile convulsion. This difference in findings may be due to a variety of reasons including increasing parental awareness.

With respect to the attitudes, most respondents agreed to the fact that the child's temperature should be monitored fre-

quently and giving more attention and care to the child. These findings concord with that of Agin et al¹⁷ where, most parents believed that the children with FC required frequent temperature monitoring. This could be explained by the fact that most parents are aware that fever is the immediate cause of the convulsion and checking the child's temperature will help guard against the attack. Also, this study revealed that majority of the respondents said that convulsion is not a contagious condition and consequently parents of the child with convulsion should not be avoided. This finding could be due to the fact majority of the respondents knew that convulsion was due to fever. In addition, the findings revealed a fewer proportion of respondents perceived it was shameful having a convulsing child. However, this proportion was lower than that of Agin et al¹⁷ where close to half of his subjects were ashamed of having a convulsing child. This slightly negative attitude could be explained by the fact that parents are not knowledgeable enough on FC. Moreover, almost half of the participants said that convulsion will become epilepsy which is not true because the risk of developing epilepsy following simple FC or complex FC is 1-2.4% and 4.1-6%, respectively.¹⁷

Furthermore, majority of the parents reported that folk medicine ("country medicine") was necessary during a convulsive attack. This may be due to the fact that they feel folk medicine has a rapid effect on aborting the convulsion. It is important for parents to be informed that some of these traditional practices may lead to the child's death or long-term neurological deficit.¹⁴ This study also revealed that more than a quarter of the study population still perceived that convulsion could also be due to evil spirit possession. This finding supports that of Abotsi et al⁹ in which 30% of the respondents described convulsion as a sickness in children which is normally caused by witchcraft, evil spirits that fly as birds at night. These findings also tie to the findings of Anigilaje et al¹³ who also found that participants attributed angry gods, evil spirits (49%), constipation and black blood to the causes of FC.¹³ These gross misconceptions about FC by parents, may favor decisions to take inappropriate measures in an attempt to control the convulsion. This study also found that almost all, the participants mentioned the feeling of panic and fear whereas very few confessed that they will run away from the child. Panic and fear may come as a result of the child exhibiting sudden body contraction followed by loss of consciousness. Running away from the child may be due to the frightful manifestation of the illness. Overall, the parents' attitudes towards the convulsing child was positive. This contradicts the findings of Bogne et al¹² who concluded in his study that parents had inappropriate attitudes towards convulsion.

With regards to respondents' practices on convulsion, almost all the subjects in the study knew what to do during the time of the convulsion. This result contradicts those of Agin et al¹⁷ and Anjum et al¹⁸ in which some proportion of respondents (44% and 58.18% respectively) did not know what to do at the time of the attack. The results of this study showed that parents tried lowering the child's body temperature. This finding is in good accord to that of Abotsi et al⁹ and Agin et al¹⁷ where most and majority of the participants respectively reported tried reducing the fever in an attempt to prevent convulsion. Also, majority of the participants in our study agreed on giving Paracetamol syrup to the

child given that it is an antipyretic. Unfortunately, most parents did not consent on the fact to place the child on soft and safe surface, placing the child on his or her side or even observing the seizure manifestation and duration. These findings reflect that of Anigilaje et al¹³ whose respondents did not acknowledge the correct practice of putting the child on his or her. It is well-known that children with convulsion are expected to be laid on their side to prevent injury resulting from falls and dangerous aspiration of secretion that may be regurgitated into their mouths. A majority of the subjects rushed the child to the hospital while a similar majority called for help. These results coincide with that of Anigilaje et al,¹³ where 82.8% of the participants rushed the child to the hospital while 81.6% called for help. Nevertheless, the study also revealed that, most parents attested to the fact that they opened the convulsing child's clenched teeth so as to put something inside the mouth. This is a similar finding to the studies carried out by Anigilaje et al¹³ and Agin et al.¹⁷ However, the proportion of participants of this study was higher than those of the other study (9% and 61.2%) respectively. Other major traditional practices reported were putting the child's head into the toilet pit, applying "*black mayanga and masopo*" on the child's body, making scarification amongst others. Similar traditional practices were reported by another study.¹ Most parents believed that when a child is convulsing, all efforts must be put in place in order for the child not to bite the tongue, an event that may lead to instant death of the convulsing child. Thus, any item readily available including the parents hands is put into the mouth of the convulsing child. Other items including spoon, spatula or even sticks are quickly placed into the child's mouth to "prevent" death. Furthermore, the concept of making a therapeutic incision on the forehead of the convulsing child was practiced only by a few as they believed that it could be due to evil forces so by scaring the child will help liberate the child from these forces. Some subjects also burned the feet of the child in open fire. This proportion was lower than that reported (8.3%) by Anigilaje et al¹³ in Nigeria but similar to that of Fatunde et al¹⁴ still in Nigeria who reported a value of 1.4%. This mode of treatment appears as one of the practices that have been passed down from one generation to another to another, without any logical explanation and which have been abandoned by many explaining why only a few carried out the intervention.

Pertaining to the common concerns of participants, the study showed that the most common concern expressed among subjects was the fear of their child dying. This finding is similar to that of Abeysekara et al¹⁵ in India who also reported that 90% of the parents worried about possible demise of the convulsing child. Also, these findings are in good accordance with that of Anjum et al¹⁸ where 82.72% of subjects thought the child may die due to the convulsion. However, Kumar, et al²⁴ in Turkey reported a lower proportion of 33.5% parents nursing fear of death of the convulsing child. The abrupt onset of the abnormal motor activities and the accompanying impairment or loss of consciousness is a dreadful and frightening experience and may readily explain the parental concern of imminent death.²⁴ It should be noted that there are almost no deaths reported in a thousands of cases of FS that have been studied and the risk for mortality is not higher in children with FC.²⁵ Furthermore, the study revealed that most subjects feared recurrence of convulsion, a finding that was higher

than that of Abeysekara et al¹⁵ and Kumar et al²⁴ who reported fear of recurrence in 19.3% and 91.4% respectively in the participants. Another significant concern for parents was fear of feature epilepsy which tied to the findings of Agin et al¹⁷ and Anjum et al.¹⁸ Accumulated epidemiological evidence indicates that FC are the most common recognised precursor for epilepsy in childhood, although the exact risk for developing epilepsy after a febrile seizures is uncertain.²¹ However, factors that increase the risk for developing epilepsy following FC include; a family history of epilepsy, complex features and the presence of early onset of neurodevelopmental abnormalities.²⁶

Talking about the association between knowledge of convulsion and demographic characteristics, the study revealed that knowledge of convulsion was associated ($p=0.05$) with gender and marital status respectively but was not dependent ($p>0.05$) on age and level of school attained. In addition, it was statistically obvious that female were more knowledgeable than the male with proportions of 76.3% and 42.9% respectively. Furthermore, the married were also more knowledgeable 81.2% than those who were single 58.1%. The findings of our study however, disagree with the findings of Wuni et al¹ and Shibeed et al.²³ Wuni et al¹ noticed that knowledge was associated with belief that witchcraft could cause FC ($p=0.44$), first aid ($p=0.021$) and intervention after first aid ($p=0.040$) while Shibeed et al²³ found that knowledge was associated with residence ($p=0.047$) and educational level ($p=0.001$).

CONCLUSION

This study revealed that overall, parents' knowledge on convulsion was good, and more than half of the respondents had positive attitudes towards convulsion. However, it was found that some parents whose children had suffered from febrile convulsion even though, had adequate knowledge regarding the causes, signs and symptoms of convulsion, still showed negative attitudes such as panic and fear towards convulsion. In addition, the study revealed that generally their practices towards convulsion were good. Nevertheless, there still exist some inappropriate practices like putting the child's head into the toilet pit. Most parents feared that they will lose their child during the convulsive attack. Based on the findings of this study, it can be seen that there is still a need for parents to be properly educated by nurses especially on convulsion and its benign nature. This will go a long to allay their fears and concerns, and improve their first aid measures of convulsion in children under 5-years. This will in turn reduce prolonged hospitalization and aspiration pneumonia among others resulting from inadequate practices.

LIMITATIONS OF THE STUDY

This study used a questionnaire to collect data; the disadvantage is that it does not produce rich data; in this case participants' feelings cannot be fully captured. To compensate for the limitation open-ended questions were included and copies of the questionnaire were administered on a face-to-face basis. The data from the close and open ended questions together gave us a broad understanding of the participants' knowledge, attitudes and practices.

In addition, the study was only conducted in Muea Community and as such the findings cannot be generalised to other areas. Hence, it is suggested that a more robust studies on parents' knowledge, attitudes and practices be carried out to increase the validity of our study.

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AUTHORS' CONTRIBUTION

Both authors participated in all steps of the study from its commencement to writing. That is, conception and design, acquisition of data, analysis and interpretation of data as well as drafting and or revising and approving the final manuscript.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

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