

Research Article

Knowledge, Attitude, and Practice of Primary School Teachers Towards Seizing Children, Jimma Town, South Western Ethiopia, Cross Sectional Study

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Abstract

Background: Seizure is one of the most common abnormal neurologic conditions that represent the uncontrolled, abnormal electrical activity of the brain that may cause changes in the level of consciousness, behaviour, memory, or feelings. Seizure is poorly understood by the public and has been associated with numerous misconceptions and beliefs. It can disrupt daily activities, hinder educational progress, and lead to social stigma and discrimination. Since teachers have a key role in society as educators assessing their knowledge, attitude, and practice towards seizing children and knowing their gaps have a significant input in correcting the misconceptions and wrong beliefs in the public and improving the care and future life of children with seizures. **Objective:** the aim of the study is to assess the knowledge, attitude and practice (KAP) of primary school teachers towards seizing children in Jimma town, south-western Ethiopia. **Methods:** A facility based cross-sectional study design was conducted among teachers in private and public primary schools found in Jimma town from March to December, 2023. In this study 24 governmental and 26 private primary schools were included which was selected by stratified random sampling technique. Data were collected using pre-tested and structured questionnaire. The data were entered into Epi-data 3.1 and double entry verification was made and then exported to SPSS version 25 for analysis. Logistic regression analysis was done to identify covariates associated with the outcome variable. **Results:** This finding revealed that, 45.1%, 59.8% and 35.8% of study participants had good knowledge, had positive attitude and had good practice towards seizing children respectively. Factors associated with good knowledge among teachers towards seizing children was age, sex and educational status. Similarly age, genders, level of education, school type, knowledge and attitude were significantly associated with practice and attitude of the respondents. **Conclusion and recommendation:** The majority respondents in Jimma town had poor level of knowledge, positive attitude, and poor practice towards seizing children. Generally, the current new findings will initiate further studies to limit the barrier, to disseminate appropriate information, or to improve teacher's knowledge, attitude, and practice towards seizing children because there is still a student with seizure that has been treated with a negative attitude and poor practice of teachers.

Keywords

Attitude, Children, Epileptic, Knowledge, Practice, School Teachers, Seizure

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1. Introduction

Seizures are unexpected, uncontrollable electrical abnormalities in the brain that can cause a variety of physical and behavioural symptoms. People of all ages, from infants to elderly adults, can experience seizures, which can range in intensity and length. Depending on the part of the brain that is affected, seizures may manifest with a range of symptoms. These symptoms can range from brief periods of staring or confusion to convulsions, loss of consciousness, and involuntary movements of the body. It is important to note that not all seizures involve convulsions, and some may present as subtle behavioural changes or absence seizures, which can be easily overlooked or misinterpreted [1].

One of the most frequent causes of seizures is epilepsy, a neurological condition marked by recurring seizures. According to the World Health Organization (WHO), epilepsy affects approximately 50 million people worldwide, making it a significant public health concern [2]. And 80% of them live in the developing world. It is a common, chronic, non-communicable condition or conglomeration of disorders with distinguishing characteristics in both social and mental health. It refers to a class of diseases known as epileptic seizures, which are sudden, unpredictable pauses of regular brain activity [3]. It affects people of both sexes and all ages, but it is more prevalent in childhood, adolescent, and aging populations [4].

Seizures are frequently linked to a variety of cultural notions around the world, including divine retribution, curses, demonic possession, infectious diseases, and psychiatric disorders. These myths, sadly, have the potential to cause inadequate therapies, shame, abandonment, and neglect of those who have seizures. As a result, those who are impacted may incur considerable socioeconomic effects and social isolation [5]. Teachers in primary schools may face a number of difficulties as a result of their lack of information and possible knowledge gaps. First of all, it's possible that there will be a delay in delivering the right care and assistance during seizures, which could worsen the situation and jeopardize the safety of the seizing child. Second, teachers may have incorrect beliefs about seizures, which could cause them to react inappropriately or to panic unnecessarily while a student is having a seizure [6].

It is estimated that approximately 10% of people may experience seizure during their lifetime and that those who experience seizure may present with different clinical symptoms depending on whether the seizure is focal or generalized [7]. If a patient has at least two unprovoked seizures that occur more than 24 hours apart, or if the patient has one unprovoked seizure and the likelihood of subsequent seizures is comparable to the general recurrence risk after two unprovoked seizures, occurring over the next 10 years, then the patient is considered to have epilepsy. In addition, if he or she was diagnosed with epilepsy syndrome, they could also be labelled epileptics [1]. To address these challenges and ensure the safety and well-being of seizing children, it is crucial to assess the knowledge,

attitudes, and practices of primary school teachers towards seizures. This assessment will help identify specific areas of improvement and develop targeted training programs that address the identified gaps. By enhancing the knowledge and preparedness of primary school teachers, we can create a more inclusive and supportive learning environment for all students, including those who experience seizures.

2. Methods

2.1. Study Area and Period

The study was conducted in selected public and private primary schools found in Jimma town, South-west Ethiopia. Jimma town is located in south-western part of Ethiopia, Oromia region, 352km from Addis Ababa. It has altitude of 1780 meters above the sea level. There are 50 primary schools in the town among from which 24 are government/public and 26 are private. The study was conducted from March to December 2024.

2.2. Study Design

An institutional based Cross-sectional study design was employed.

2.3. Population

2.3.1. Source Population

All primary school teachers in Jimma town during the study period.

2.3.2. Study Population

Primary school teachers of selected primary schools who fulfil inclusion criteria.

2.4. Inclusion and Exclusion Criteria

2.4.1. Inclusion Criteria

Teachers who are teaching in primary schools in Jimma town and present during data collection.

2.4.2. Exclusion Criteria

Teachers who are not willing to participate in the study.

2.5. Sample Size Determination and Sampling Procedure

Lottery sampling method was used to collect information

from all teachers in the selected schools. Sample size was determined by using a single population proportion formula, then

$$n = (Z_{\alpha/2})^2 p (1-p) / d^2$$

$$n = (1.96)^2 0.5(1-0.5) / (0.05)^2 = 384$$

Where: n = size sample, $Z_{\alpha/2}$ = standard normal value, d = error of precision and P = Prevalence

Assumptions:

Prevalence was taken as 50%, Margin of error d = 5% was accepted, A confidence interval of 95% was assumed ($Z_{\alpha/2} = 1.96$). There are a total of 50 schools and 1219 teachers in Jimma town. 5% non-response rate was considered: the final sample size was $384 + 19 = 403$.

Therefore k^{th} value was ~ 3 ($1219/403$) totally 16 schools was selected by stratified random sampling technique. The following diagram shows the general sampling technique of this study (Figure 1).

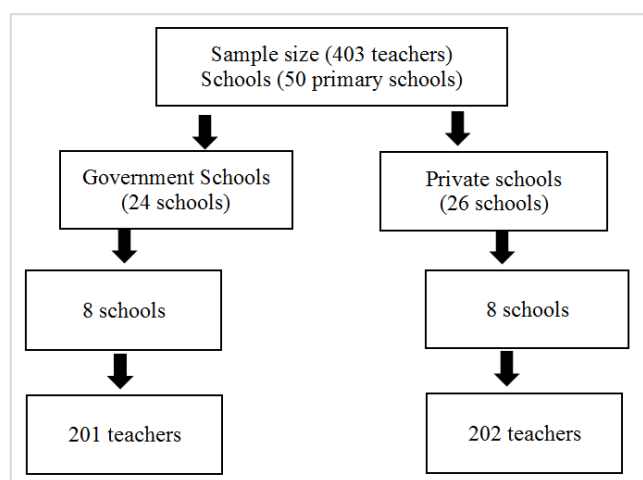


Figure 1. Sampling technique.

2.6. Study Variables

2.6.1. Dependent Variable

- 1) Knowledge of seizing children
- 2) Attitude towards seizing children
- 3) Practice towards seizing children

2.6.2. Independent Variable

Age, sex, marital status, year of experience, qualification (educational level), training on first aid for seizure and school type.

2.7. Data Collection and Measurements

A self-administrated validated questionnaire in Afaan

Oromo, Amharic and English languages were used. The Questionnaires had two Sections: the first section included demographic questions (marital status, age, gender, qualification), and the second section included questions on knowledge of seizing children, attitude towards seizing children and practice for seizing children. The questions assessed the participants' knowledge, attitude and practice towards seizing children in school.

The answers was added together to form a knowledge score. The teachers' knowledge was classified into good (> 50% correct answers) and poor (<50% correct answers) [8]. And there was also general awareness question for which association with knowledge was assessed.

Attitude of teachers towards seizing children was measured by using 3 points Likert scale which contains agree, disagree and not sure options. It was graded as negative attitude for those who scored <60% and positive for those scoring >60% [9].

The practice of teachers towards seizing children was assessed by practice related questions where the steps of WHO approach to seizing children was used and their answer was scored as good if they correctly answer >50% and poor <50% and was labelled as wrong practice if they choose the wrong option [8, 10].

2.8. Data Quality Control

The questionnaire was pre-tested on 5% of the sample in schools not chosen for the current study, and adjustments was made in accordance with the results. The pre-test evaluated the validity of the knowledge, attitude and practice items. The professional data collectors gathered the necessary information. The primary investigator checked the completed forms, and any errors or inconsistencies was corrected as soon as possible. To reduce errors, data entry was done using Epi Data version 3.1. Before summing up the data, the analysis looked for missing values and outliers.

2.9. Data Analysis

The collected data were entered into EpiData 3.1 then exported to SPSS version 25 for further analysed. Descriptive statistics was utilized to summarize the information. The scores for knowledge and attitude was determined, as well as the percentage of respondents who fall into each category of knowledge and attitude. Binary logistic regression and multivariate logistic regression was used to evaluate the relationship between knowledge, attitude, practice and independent variables. The first analysis was a bivariate binary logistic regression. Multivariable binary logistic regression considered variables with p-values less than 0.25 as candidates. $P < 0.05$ will be used to declare statistical significance in multivariable analysis. To show the degree to which an outcome is correlated with independent factors, odds ratios and matching 95% confidence intervals was employed.

2.10. Ethical Consideration

Ethical clearance was obtained from institutional review board of Institute of Health, Jimma University. Permission was obtained from the authorities of the town education office and schools, after letter was written for them from the department. Written informed consent was obtained from each study participant. Confidentiality was assured by collecting data anonymously. Collected data was used only for research and academic purpose.

Operational Definitions

School Teachers: - Refers to the professionals who have completed diploma or related degree in education, and currently working in teaching of students

Epilepsy: - Two or more unprovoked seizure occur in a time frame of > 24 hour

Seizure: - Abnormal body movement which is characterized by fall, shake, jerk, drooling of saliva or foaming and become unaware of what's going on around for few seconds to minutes

Seizing Child: - is a child with new onset seizure and/or previously diagnosed with seizure disorder

First aid: - is the immediate assistance provided to a seizing child until professional help arrive.

Knowledge: - The fact or condition of knowing seizure or seizure awareness.

Poor (score< 50%) and good (score>50%)

Attitude: - The way teachers think and behave toward seizing children

Negative (score< 60%) and positive (score>60%)

Practice: - Expected procedure or way of doing of something to support seizing children.

Poor (< 50% correct answers), good (> 50% correct answers) and wrong (for incorrect answers)

Primary School: - It is a school which teaches from Grade 1- Grade 8.

3. Results

3.1. Socio-demographic Characteristics

From a total of 403 calculated sample size, 388 were participated in this study with 96.3% response rate. Most (70.6%) of study participants are in between 18 to 35 age group and half (50.8%) of them were male by sex. More than half (62.6%) of respondents were married 54.4% had diploma in educational level (Table 1).

Table 1. Socio-demographic characteristics of primary school teachers in Jimma town, South West, Ethiopia, 2023.

Charactemristics	Category	Frequency	Percent (%)
Age	18 to 35 year	274	70.6
	36 to 45 year	114	29.4
Genders	Male	191	49.2
	Female	197	50.8
Marital status	Married	243	62.6
	Single	133	34.3
	Divorce	12	3.1
level of education	Diploma	211	54.4
	Degree	177	45.6
	orthodox	137	35.3
Religion	Muslim	194	50.0
	protestant	57	14.7
	< 5 year	90	23.2
Working experience	6 to 10 year	202	52.1
	>11 year	96	24.7
	Government	190	49
School type	Private	198	50

3.2. Knowledge Towards Seizing Child

The finding showed that, 45.1% of study participants had good knowledge towards seizure and seizing children (Figure 2). Most (86.1%) of respondents heard about seizure of which, (38.5%) from health profession and about (36.5%) from public media. Most (77.6%) of respondents knew the cause of seizure in children is biological. Epilepsy (80.1%), psychiatric illness (80.1%), brain tumor (33.9%), brain infection (33.6%) and genetic disorder (31.9%) were the biological causes of epilepsy as they mentioned. Additionally, respondents thought

that witchcraft (22.6%), the evil spirit (58.1%), and the curse of God (19.3%) were spiritual causes of seizures. Of all, 298(76.8%) of study participants were seen a child with seizure. Convulsion (70.6%), loss of consciousness with saliva drooling (62.6%), and short behavioral alteration (41%), were the most common seizure manifestations. Merely 1.5% of those surveyed thought that seizures could be passed from one person to another. Most (79.4%) of respondents knew seizure is treated or controlled of which; majority (86%) of them choose modern medicine or medical treatment (Table 2).

Table 2. Knowledge of primary school teachers towards seizing children in Jimma town, South West, Ethiopia, 2023.

Variables	Category	N	%
Ever heard about seizure	Yes	334	86.1
	No	54	13.9
Sources of information	Public media	124	37.1
	Neighbors	73	21.9
	Health professional	131	39.2
	Friends	6	1.8
	Books	6	1.8
	Biological cause	301	77.6
	Spiritual cause	31	8.0
what do you think is the cause of seizure in children	I don't know	56	14.4
	Genetic disorder	96	31.9
	Brain infection	101	33.6
	Epilepsy	241	80.1
	Psychiatric illness	241	80.1
If your answer is biological cause which one do you know	Brain tumor	102	33.9
	Head trauma	91	30.2
	Fever	47	15.6
	Hypoglycemia	83	27.6
	Curse of God	6	19.3
If your answer is spiritual cause which one do you know	Evil sprit	18	58.1
	Witch craft	7	22.6
Ever known/seen a child with seizure	Yes	298	76.8
	No	90	23.2
	Convulsion	274	70.6
The manifestation of seizure	Loss of consciousness with drooling of saliva	243	62.6
	Brief behavioral change	159	41.0
	Foaming	138	35.6
	Urine incontinency	110	28.4

Variables	Category	N	%
Do you think seizure is transmitted from one person to another	Yes	6	1.5
	No	247	63.7
	I do not know	135	34.8
Do you believe that seizure is treated or controlled	Yes	308	79.4
	No	13	3.4
	I do not know	67	17.3
Type of treatment	Modern medicine or medical treatment	265	86.0
	Traditional healer or medicine	30	9.7
	Religious treatment	67	21.8

Level of knowledge

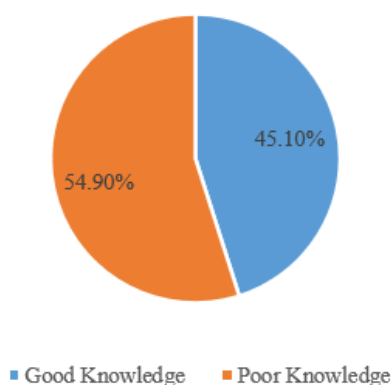


Figure 2. Figure showing knowledge of primary school teachers towards seizing child, Jimma town, south-western Ethiopia, 2023.

3.3. Attitude Towards Seizing Child

The current study finding revealed that, 59.8% of study participants had positive attitude towards seizing child (Figure 3). Only 1.5% agreed that seizure is contagious and some (14.2%)

of them believed that children with seizure are insane. Most (76.8%) of respondents believed that; children with seizure have normal intelligence and should be allowed to continue learning. Most (65.5%) of respondents agreed to allow their child to play with children with seizure and only 4.6% of them believed children with seizure are burden to society (Table 3).

Table 3. Attitude of primary school teachers towards seizing child in Jimma town, South West, Ethiopia, 2023.

Variables	Agree N (%)	Disagree N (%)	Not sure N (%)
Seizure is contagious	6(1.5)	304(78.5)	78(20)
Children with seizure are insane	55(14.2)	261(67.3)	72(18.5)
Children with seizure have normal intelligence	298(76.8)	54(13.9)	36(9.3)
Children with seizure should be isolated from community	6(1.5)	313(80.7)	69(17.8)
Children with seizure should allowed to continue learning	310(79.9)	48(12.4)	30(7.7)
Children with seizure should learn in special school	79(20.4)	211(54.4)	98(25.4)
Allow your child to play with children with seizure	254(65.5)	37(9.5)	97(25)

Variables	Agree N (%)	Disagree N (%)	Not sure N (%)
Children with seizure can lead a healthy life style	266(68.6)	25(6.4)	97(25)
Allow your child to marry child with seizure	120(30.9)	99(25.5)	169(43.6)
Children with seizure should be offended or rejected	-	313(80.7)	75(19.3)
Children with seizure are burden to society	18(4.6)	277(71.4)	93(24)
Seizure is evil sprit	13(3.3)	187(48.2)	188(48.5)

3.4. Practices Towards Seizing Child

Based on the current study finding; 35.8% of respondents had good practice towards seizing children (Figure 4). About half (51.5%) of respondents had ever seen seizing child in their classroom/schools, of which 85% gave first aid. Of those who administered first aid, the majority (75.3%) used a cloth to shield the child's head and quickly moved him away from harm, while 64.1% assisted the child in lying on his side. In other ways, 61.2% of them used to give the child their prescribed medication by sticking a spoon or gag into their mouth. Just 4.6% of those responded had received training in seizure first aid. Of those who have never seen a child being seized, 96.8% believe they are able to providing first aid if they happen to come. Promptly move the child away from danger (76.9%), avoid touching the students during the seizure (69.8%) and make the students smell something to the seizure (50%) were the most type of first aid the participants believed

to give if they encountered. Only 4.6% of the respondents were ever trained regarding first aid of seizure in their life time (Table 4).

Attitude towards Seizure and seizing Children

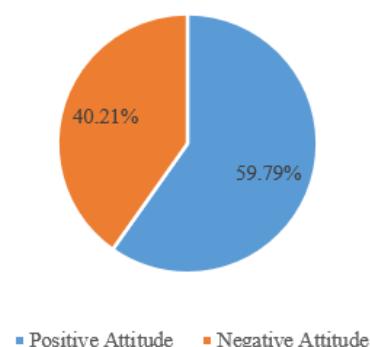


Figure 3. Figure showing Attitude of primary school teachers towards seizing child, Jimma town, south-western Ethiopia, 2023.

Table 4. Practices of primary school teachers towards seizing children in Jimma town, South West, Ethiopia, 2023.

Variables	Category	N	%
have you ever seen seizing child in your classroom or schools	Yes	200	51.5
	No	188	48.5
if yes, have you given first aid	Yes	170	85.0
	No	30	15.0
Type of first aid given by those who encountered seizure			
Hold the legs and arms		122	71.8
make the students smell something to the seizure		115	67.6
avoid touching the students during the seizure		92	54.1
promptly move the child away from danger		128	75.3
lay the child on his side		109	64.1
protect his head by putting a cloth under his head		128	75.3
avoid touching the child saliva		115	67.6

Variables	Category	N	%
inserting a spoon or gag into the mouth		104	61.2
be by the side of child till seizure stops and regains consciousness		109	64.1
give the child prescribed medication		104	61.2
loosen clothes or anything around neck		109	64.1
pour water on the face of the child		97	57.1
if no, do you think that you are able to give first aid if you encounter	yes	182	96.8
	no	6	3.2
hold the legs and arms		43	23.6
make the students smell something to the seizure		91	50.0
avoid touching the students during the seizure		127	69.8
promptly move the child away from danger		140	76.9
lay the child on his side		31	17
protect his head by putting a cloth under his head		73	40.1
avoid touching the child saliva		43	23.6
inserting a spoon or gag into the mouth		43	23.6
call a doctor or an ambulance		133	73.1
be by the side of child till seizure stops and regains consciousness		73	40.1
give the child prescribed medication		25	13.7
loosen clothes or anything around neck		37	20.3
pour water on the face of the child		50	27.5
ever been trained regarding first aid of seizure in life time	Yes	18	4.6
	No	370	95.4

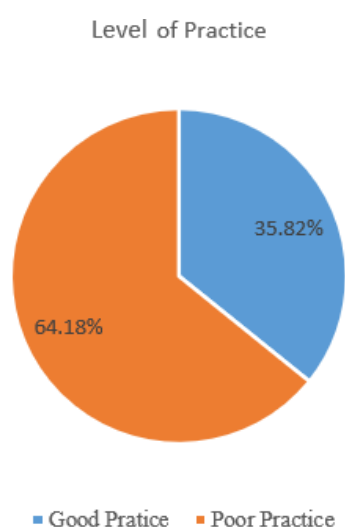


Figure 4. Figure showing practice of primary school teachers towards seizing child, Jimma town, south western Ethiopia, 2023.

3.5. Factors Associated with KAP Teachers Towards Seizing Child

3.5.1. Factors Associated with Practice Towards Seizing Child

Age, gender, level of education, religions, school type, knowledge and attitude were the candidate variables on bi-variate logistic regression analysis at p value ≤ 0.25 . Whereas, on Multi-variate logistic regression; age, gender, level of education, school type, knowledge and attitude were variables having significantly associated with the level of practice ($P < 0.05$). The odds of having poor practice was 4 times (AOR: 4.5, 95%CI: 2.42, 8.367) higher among respondents with 18 to 35 year, when compared with its counter parts. Being male decreases the odds of having poor practice by 56.2% (AOR: 0.438, 95%CI: 0.246, 0.78) when compared with female. Being diploma in educational level increases the chance of having poor practices by 2 times (AOR: 2.309, 95%CI: 1.259,

4.235) when compared with degree holders. The odds of having of having poor practice was 2 times (AOR: 2.322, 95%CI: 1.024, 4.121) higher among respondents in governmental school when compared with private school. Lack of previous training on first aid towards seizing children increases the risk of having poor practice by 4.8 times (AOR: 4.832, 95%CI:

1.323,9.432). Having poor knowledge towards seizure, increases the odds of having poor practice by 5 times (AOR: 5.365, 95%CI: 3.056, 9.418) when compared with its counter parts. Having negative attitude increases the odds of having poor practice by 67.7% (AOR: 0.323, 95%CI: 0.184, 0.568) when compared with its counter parts (Table 5).

Table 5. Bi-variate and multi-variate logistic regression model to identify factors associated with level of practice towards seizing children among school teachers in Jimma Town, Oromia, South West Ethiopia, 2023.

Variables	Category	Practice		COR	AOR (95%CI)	P-value
		Good	Poor			
Age	36 - 45yr	66(57.9)	48(42.1)	1	1	.000
	18 – 35yr	73(26.6)	201(73.4)	3.786	4.5(2.42,8.367)	
Genders	Female	51(25.9)	146(74.1)	1	1	.005
	Male	88(46.1)	103(53.9)	0.409	0.438(0.246,0.78)	
Level of education	Degree	81(45.8)	96(54.2)	1	1	.007
	Diploma	58(27.5)	153(72.5)	2.226	2.309(1.259,4.235)	
	Protestant	27(47.4)	30(52.6)	1	1	
Religion	Orthodox	58(42.3)	79(57.7)	1.226	0.988(0.431,2.261)	.977
	Muslim	54(27.8)	140(72.2)	2.333	1.488(0.704,3.144)	.298
School type	Private	127(66.8)	63(33.2)	1	1	0.043
	Gov't	92(46.5)	106(53.5)	2.932	2.322(1.024,4.121)	
Ever been trained	Yes	12(66.7)	6(33.3)	1	1	0.004
	No	105(28.4)	265(71.6)	5.047	4.832(1.323,9.432)	
Knowledge	Good	108(61.7)	67(38.3)	1	1	.000
	Poor	31(14.6)	182(85.4)	9.464	5.365(3.056,9.418)	
Attitude	Negative	44(19)	188(81)	1	1	.000
	Positive	95(60.9)	61(39.1)	0.15	0.323(0.184,0.568)	

3.5.2. Factors Associated with Knowledge Towards Seizing Child

Age, genders, level of education, religions and attitude were the candidate variables on Bi-variate logistic regression analysis at p value ≤ 0.25 . Whereas, on multi-variate binary logistic regression; age, genders, level of education and attitude were variables which had significantly associated with the level of knowledge towards seizure and seizing children among the study participants at ($P < 0.05$) with 95% CI AOR.

The odd of having poor knowledge was 5 times (AOR: 5.197, 95%CI: 2.881, 9.378) higher among respondents with 18 to 35 year, when compared with its counter parts. Being male in gender decreases the odds of having poor knowledge by 61.3% (AOR: 0.387, 95%CI: 0.221, 0.679) when compared with female. Being diploma in educational level increases the chance of having poor knowledge by 2 times (AOR: 2.571, 95%CI: 1.456, 4.539) when compared with degree holders. Having negative attitude increases the odds of having poor knowledge by 81.7% (AOR: 0.183, 95%CI: 0.109, 0.306) when compared with its counter parts (Table 6).

Table 6. Bi-variate and multi-variate logistic regression model to identify factors associated with knowledge towards seizing children among school teachers in Jimma Town, Oromia, South West Ethiopia, 2023.

Variables	Category	Knowledge		COR	AOR (95%CI)	P-value
		Good	Poor			
Age	36 - 45yr	65(57)	49(43)	1	1	.000
	18 – 35yr	110(40.1)	164(59.9)	3.786	5.197(2.881,9.378)	
Genders	Female	69(35)	128(65)	1	1	.001
	Male	106(55.5)	85(44.5)	.409	0.387(0.221,0.679)	
level of education	Degree	92(52)	85(48)	1	1	.001
	Diploma	83(39.3)	128(60.7)	2.226	2.571(1.456,4.539)	
Religion	Protestant	33(57.9)	24(42.1)	1	1	1
	Orthodox	57(41.6)	80(58.4)	1.226	1.093(0.508,2.353)	.820
	Muslim	85(43.8)	109(56.2)	2.333	1.504(0.737,3.068)	.262
Attitude	Positive	61(26.3)	171(73.7)	1	1	.000
	Negative	114(73.1)	42(26.9)	0.15	0.183(0.109,0.306)	

3.5.3. Factors Associated with Attitude Towards Seizing Child

Age, genders, level of education, ever heard about seizure and knowledge were the candidate variables on Bi-variate analysis at p value ≤ 0.25 . On Multi-variate logistic regression genders, ever seen child with seizure knowledge were variables which had significantly associated with level of attitude towards seizure and seizing children at p value < 0.05 with 95%

CI AOR.

Being male in gender increases the odds of having negative attitude by 2 times (AOR: 2.333, 95%CI: 1.44, 3.78) when compared with female. The risk of having negative attitude was decreased by 64.8% among those who had ever seen child with seizure (AOR: 0.352, 95%CI: 0.191, 0.651) when compared with its counterparts. Having poor knowledge increases the odds of having negative attitude by 85% (AOR: 0.150, 95%CI: 0.093, 0.241) when compared with its counter parts (Table 7).

Table 7. Bi-variate and multi-variate logistic regression model to identify factors associated with attitude towards seizing children among school teachers in Jimma Town, Oromia, South West Ethiopia, 2023.

Variables	Category	Attitude		COR	AOR (95% CI)	P
		Negative	Positive			
Age	36 - 45yr	58(50.9)	56(49.1)	1	1	.054
	18 – 35yr	98(35.8)	176(64.2)	0.538	0.589(0.344,1.01)	
Genders	Female	57(28.9)	140(71.1)	1	1	.001
	Male	99(51.8)	92(48.2)	2.643	2.333(1.44,3.78)	
level of education	Degree	80(45.2)	97(54.8)	1	1	.273
	Diploma	76(36)	135(64)	.683	0.766(0.475,1.234)	
ever seen child with seizure	No	138(46.3)	160(53.7)	1	1	.001
	Yes	18(20)	72(80)	.29	0.352(0.191,0.651)	
Knowledge	Poor	114(65.1)	61(34.9)	1	1	.000

Variables	Category	Attitude		COR	AOR (95% CI)	P
		Negative	Positive			
	Good	42(19.7)	171(80.3)	.131	0.150(0.093,0.241)	

4. Discussions

This study was attempted on the determination of the level of knowledge, attitude, and practice towards seizing children among school teachers in Jimma Town. This study finding suggested the presence of poor level of knowledge, positive attitude, and poor practice of primary school teachers towards seizing children. Schoolteachers were study participants in this study because seizure and its influences are often observed among students in the schools. Notably, the students pass their vital part of their age in the schools through interaction with the teachers. Negative influence from the school environment will harm their present, as well as their future achievements. For example, students with seizure are often seen exposed for poor grade achievement, poor self-esteem, learning difficulties, poor attention, and social isolation.

This study found that teachers who have good knowledge were 45.1% which is in line with the study done in Addis Ababa (41.1%) [8]. Compared with another study, this finding was much smaller than the study conducted in India's Persian city (97%) [10] Burkina Faso Bobo cities (98%) [11] and Pakistan (89.3%) [12]. The difference might be the study setting, the educational status of teachers, the difference in educational curriculum, or lack of information access, and training. For instance, in Ethiopia majority of high school teachers have their Bachelor's degrees or less, and they do not have good information access due to poor networking systems. The educational curriculum of Ethiopia also does not include first aid in the teacher's educational textbook (guidance). This study is higher than a study conducted in Saudi Arabia which revealed 17% [13].

The difference could be that all respondents were high school teachers, rather in this study, primary school teachers were the study groups. Based on this study, among respondents, 86.1% have heard about seizure or seizing children and goes in line with the study done in Addis Ababa which is 90% [8] and much lower than the study done in Assiut city, Egypt where familiarities is 100% [14]. The major source of information in our study being health professional in 38.5% followed by public media which is 36.5%. Most of the participants (77.6%) knew the cause of seizure to be biological where 80.1% stated epilepsy and psychiatric followed by brain tumor (33.9%), brain infection (33.6%) and genetic disorder (31.9%) which is lower than the study done in Greece where 83.1% [15] stated reasonable answers such as brain tumour, infection, genetics and trauma and this could be due to

the teaching set up in developed countries. Moreover; Curse of God (19.3%), Evil spirit (58.1%) and Witch craft (22.6%) were respondents who believed the cause as spiritual this is in line with the study done in Addis Ababa [8] where 25% and 12.6% of them considered psychiatric illness and evil spirit, respectively. Of all, 298 (76.8%) of study participants have seen a child with seizure.

Regarding manifestation of seizure; convulsion (70.6%), loss of consciousness with drooling of saliva (62.6%) and brief behavioral change (41%) were the top listed. Only 1.5% of respondents had believes that seizure is transmitted from one person to another. Most (79.4%) of respondents knew seizure is treated or controlled of which; majority (86%) of them choose modern medicine or medical treatment this also goes online with the study done in Addis Ababa where most the respondents (98%) have seen a child with seizure and stated the common manifestation as convulsion (83.5%).

The current study finding revealed that, 59.8% of study participants had positive attitude towards seizing child which goes in line with the study done in armachiho where the teachers had an attitude (52.1%) [16] towards epilepsy and lower than the one done in Ghana where the participants had more favourable attitude (88.8%). Only 1.5% agreed that seizure is contagious and some (14.2%) of them believed that, children with seizure are insane. Most (76.8% & 79.9%) of respondents believed that; children with seizure have normal intelligence and should be allowed to continue learning.

Most (65.5%) of respondents agreed to allow their child to play with children with seizure and only 4.6% of them believed children with seizure are burden to society. This is in line with the study done in assiut city, Egypt [14] 76.8% of teachers stated it is the same as to any other student or feel sympathy and deal with him or her as with a chronic health problem, and only 1.1% stated that they would rather avoid an epileptic student in their class.

Based on the current study; 35.8% of respondents had safe practice towards seizing children. About half (51.5%) of respondents had seen seizing child in their classroom/schools, of which 85% gave first aid. Of first aid given; most (75.3%) of them used to protect head by putting a cloth under his head and promptly move the child away from danger, while 64.1% of them helped the child to lied on his side. In other ways, (61.2%) of them were used to insert a spoon or gag into the mouth and give the child prescribed medication. Only 4.6% of the respondents were trained regarding first aid of seizure. This goes in line with the study done in Addis Ababa [8]

where protecting the child from harmful materials until seizure relief by itself was the first selected activity, followed by lying on the ground in a safe position.

Being a male is positively correlated with the knowledge level, this finding is supported by the study conducted in Khartoum and Central Nepal. The possible reason may be due to the fact that female teachers had less chance to observe the onset of seizure attack, the local norms and customs compromised their movements, but males have more opportunity, in this regard, to see the onset of the seizure.

Being a more educated teacher (having above diploma level) is positively associated with the knowledge level. Our result is strongly supported by the study conducted in Goncha Siso Enesie Woreda, Addis Ababa and Northern Nigerian which shows as the level of education increases, the likelihood of getting information that influences their knowledge will increase.

Ever heard about seizure or having information about seizing child is significantly related with having good knowledge as compared with their counterparts. A similar result was observed in Sululta and Addis Ababa studies. This can be explained with the idea that a person that knows or heard about seizure or seizing child has better access to develop awareness. The study has also found that married teachers possessed more adequate knowledge than their single counterparts, a finding similar to the study done in Ghana where the tradition among many ethnic groups requires that comprehensive background checks are made before marriage is contracted between couples [17].

Regarding the determinant factors, being an older age is positively related to the level of attitude towards seizing children. Participants above thirty-seven years are more likely to develop a favourable attitude towards seizing children. These findings are supported by the study conducted in the Sululta District and Khartoum State. Meaning, older teachers have more experience and familiarity with seizure and seizing children. It may be related to the more teachers are exposed to the environment for a long period, the more they will develop a good awareness, and they will have an opportunity of changing their attitude through the process.

Teachers who had previous first-aid training are more likely to have good practice as compared with their counterparts. This association is in line with the study conducted in Sululta. It might be due to the fact that globally, one can observe that the more trained people are, the larger the amount of practicing the management is. Truly speaking, skill, or practice, is affected by the experience that we have and the training that we took.

Strength and limitation of the study

This study was performed based on a random or probability sampling method, and it has a high sample size to increase precision and has also high response rate. The study has assessed the knowledge, attitude, and practice of primary schoolteachers towards seizing children for the first time in the town, which can function as base line for further studies and also as an input for stakeholders. Since the study was a cross-sectional, no practical skills could be tested in this setting, and the responses were most likely subjective and it was only conducted in primary schools,

thus, its results may have limited generalisability. Since the study didn't exclude seizing mimicking disorders it may overestimate the exposure of the teachers.

5. Conclusion and Recommendations

5.1. Conclusion

This study showed that the majority of teachers in Jimma town had poor level of knowledge, positive attitude, and poor practice towards seizing children. The poor level of knowledge and practice found among teachers demonstrates the need for health education program and first aid trainings to handle seizing children.

5.2. Recommendation

For researchers and concerned bodies: Further studies are needed to explore the barriers and facilitators of teachers' knowledge, attitude, and practice towards seizing children, and to evaluate the effectiveness of health education program and first aid trainings for teachers.

For government policymakers: Special needs courses should be incorporated in the educational curriculum of the teachers, to enhance their awareness and skills in dealing with students with seizure and other special needs.

For schoolteachers: First aid trainings should be provided to all level schoolteachers, to equip them with the necessary knowledge and practice to handle seizing children in a safe and appropriate manner.

Abbreviations

JU	Jimma University
JMC	Jimma Medical Center
JU ERC	Jimma University Ethical Review Committee
PWE	People with Epilepsy
KAP	Knowledge Attitude and Practice
SSA	Sub-Saharan Africa
SPSS	Statistical Package for Social Sciences
WHO	World Health Organization

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Conflicts of Interest

The authors declare no conflicts of interest.

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