Knowledge, attitude and practices of students about first aid epilepsy seizures management in a Northern Indian City

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Abstract

Background: Knowledge about epilepsy and its management is not satisfactory among school students in developing countries. The present study was planned to ascertain the knowledge, attitude and practices (KAP) of students regarding first-aid management of epilepsy seizures in school setting. **Materials and Methods:** A total of 177 students of government schools of Chandigarh, a city of northern India, were taken. They were administered with a pre-tested semi-structured questionnaire (for knowledge and attitude assessment) and an observational checklist after role play (for practice assessment) on first-aid management of epilepsy. A scoring system was devised to quantify the knowledge and practices of students. **Results:** Seventy-one percent of them had either heard or read about epilepsy. Half of the students believed epilepsy as a hindrance to education. Ayurvedic treatment was preferred by more than half of the students; however, many believed that visit to religious places and exorcism as ways to cure epilepsy. Nearly 74% of students would call a doctor as first-aid measure for seizure in a person with epilepsy. Conclusion: We concluded that the knowledge about various aspects of epilepsy was average among school students in Chandigarh. However, there was no significant difference in knowledge, attitude and practice between students who lived in urban, urban slum and rural areas. It is recommended that first-aid management of seizures in epilepsy should be a part of school curriculum.

Key Words

Beliefs, epilepsy, practices, role play, school health

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Introduction

Epilepsy is a condition of chronic, recurring seizures and its most disabling aspect is unpredictability of when and where the next seizure will occur. It affects nearly 50 million people worldwide. Epilepsy accounts for 1% of the global burden of disease; however, 80% of the burden of epilepsy is in the developing countries.^[1] In addition to increased risk of mortality and morbidity, epilepsy is a grave social stigma throughout the world including India.^[2,3] Because of the peculiar nature of the disease involving involuntary movements it arouses considerable apprehensive and anxiety in the relatives of epilepsy patients. Often, supernatural causation is ascribed. A variety of wrong and harmful

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seizures – control practices are adopted like infliction of burns, rubbing irritant in the eyes, holding the patient over fire, administration of cow urine etc.^[4-7] Social acceptance of persons with epilepsy is also poor.^[8-10]

In India, it has also been reported that students lack knowledge regarding the appropriate first-aid action to be taken for injuries and common illnesses.^[11] Rather, it has been documented to be fragmented, disintegrated and non-sequential. The concept of self-care among the community and the students is also missing.^[12] Various wrong practices and myths associated with epilepsy have also been reported among students.^[5,6] Students have a potential for changing the health scenario of the society, if properly groomed and educated for healthy living. Such training if given at young age will be a good practice in itself. There is, thus, a definite need for an intensive health education on various aspects of epilepsy to students.

Against this background, the present study was planned to ascertain the knowledge, attitude and practices (KAP) of students regarding first-aid management of epilepsy seizures in school settings.

Materials and Methods

The present study was a part of pre- and post-test intervention trial about epilepsy. This paper pertains to the baseline (pre-intervention) data on KAP only. It was carried between July 2010 and March 2011 among government school students of Chandigarh, a small, modern, well-planned city in Northern India, with a population of 10.54 lakh with density of 9,252 people per sq km. Of this, 60% reside in the urban area, 30% in slums and 10% in the rural area. The city boasts of excellent health indicators and high literacy rate of 86.43%.^[13] The urban population of city reside in 56 sectors and there are 18 resettlement colonies for urban slum dwellers while rural population resides in 22 nearby villages.

In Chandigarh, there are 106 government schools that are equally distributed in four administrative zones. A stratified random sampling method was used to select one school from each of the four administrative zones of Chandigarh. Students from 9th class from each selected school were purposely selected since tenth class students were busy preparing for the board examinations. A minimum sample size of 160 students (40 from each school) was estimated assuming α and β errors to be 0.05 and 0.20, respectively, baseline correct knowledge and expected rise in level of knowledge to be 20% and 80%, respectively. The informed consent of the concerned authorities, school principals, teachers, students and their parents was taken. The study was approved by Institute's Ethics Committee.

The study tools included (1) a self-instructional manual (SIM) on training on epilepsy; (2) a questionnaire; and (3) a checklist. SIM was prepared with the help of available material on epilepsy after which consensus validity from experts in the field was sought. It was later printed in both local (Hindi) and English languages. A semi-structured questionnaire was designed which had information on familiarity with epilepsy; and KAP about various aspects (causes, effects, misconceptions, first-aid practices, etc.) about epilepsy. It included questions with responses either yes/no or multiple choice questions. It was also translated into local (Hindi) language. It was not selected in the study. An observational checklist of first-aid management of epilepsy was designed and pretested.

The knowledge assessment regarding epilepsy was done with the help of a pretested semi-structured questionnaire. The authors addressed the selected students about the nature and purpose of the study. It was administered to the students for assessing their baseline knowledge about epilepsy, its first-aid treatment and wrong/harmful seizure control practices. The assessment of practices was done by means of a role play. For this, few students were given appropriate instructions, e.g. a student was asked to play the role of a person with epilepsy having seizure, other student was asked to manage it (sometimes rightly and sometime wrongly as told by authors). The other students were also asked to assess whether the student was managing the seizure rightly by means of the checklist. In another incident, few students were asked on-the-spot to demonstrate correct method for the management of seizure enacted by another student, who was playing the role of patient having epilepsy. All requisite materials for this purpose were provided to the students. A scoring system was devised to quantify the knowledge and practices of students about first-aid management of seizures in epilepsy. Authors themselves were present at the scene for evaluating the students. They assessed each student for the methods and allotted marks accordingly on a scoring sheet.

During analysis, the study groups were divided based upon their place of residence viz. students who lived in urban, rural and slum areas. The collected data was divided into three domains: Conceptual knowledge about epilepsy; management of epilepsy; and life style of person with epilepsy. Score was assigned to each correct response under these different domains. Maximum attainable score by a student was 82 (conceptual knowledge = 54; management = 18; and life style = 10). Score under each domain and total score was divided equally into four: <25% (poor); 25-50% (average); 50-75% (good); and > 75% (excellent).

Data validation exercise was done for all the data collected. Data were analyzed using EPI INFO-6 package software. Discrete data were analyzed using percentages, range, standard deviation and Pearson's Chi-square test for normal distribution.

Results

A total of 177 students from four government schools of Chandigarh participated in the study. Student of both the sexes were almost equal in the study. Most of the students were in the age-group of 15-17 years with the mean age of

Table 1: Familiarity	with epilepsy	among	three s	study
groups				

Corr	Total		
Urban	Slum	Rural	(<i>N</i> =177)
66 (70.2)	42 (60.0)	18 (78.3)	126 (71.2)
58 (61.7)	43 (71.7)	11 (47.8)	112 (63.3)
15 (16.0)	12 (20.0)	1 (4.3)	28 (15.8)
8 (8.5)	11 (18.3)	3 (13.0)	22 (12.4)
79 (84.0)	49 (81.7)	17 (73.9)	145 (81.9)
82 (87.2)	58 (96.7)	21 (91.3)	161 (91.0)
74 (78.7)	52 (86.7)	18 (78.3)	144 (81.4)
49 (52.1)	39 (65.0)	13 (56.5)	101 (57.1)
73 (77.7)	50 (83.3)	13 (56.5)	136 (76.8)
21 (22.3)	8 (13.3)	0 (0)	29 (16.4)
32 (34.0)	9 (15.0)	4 (17.4)	45 (25.4)
	Corr Urban 66 (70.2) 58 (61.7) 15 (16.0) 8 (8.5) 79 (84.0) 82 (87.2) 74 (78.7) 49 (52.1) 73 (77.7) 21 (22.3) 32 (34.0)	Correct respon Urban Slum 66 (70.2) 42 (60.0) 58 (61.7) 43 (71.7) 15 (16.0) 12 (20.0) 8 (8.5) 11 (18.3) 79 (84.0) 49 (81.7) 82 (87.2) 58 (96.7) 74 (78.7) 52 (86.7) 49 (52.1) 39 (65.0) 73 (77.7) 50 (83.3) 21 (22.3) 8 (13.3) 32 (34.0) 9 (15.0)	Correct response* Urban Slum Rural 66 (70.2) 42 (60.0) 18 (78.3) 58 (61.7) 43 (71.7) 11 (47.8) 15 (16.0) 12 (20.0) 1 (4.3) 8 (8.5) 11 (18.3) 3 (13.0) 79 (84.0) 49 (81.7) 17 (73.9) 82 (87.2) 58 (96.7) 21 (91.3) 74 (78.7) 52 (86.7) 18 (78.3) 49 (52.1) 39 (65.0) 13 (56.5) 73 (77.7) 50 (83.3) 13 (56.5) 21 (22.3) 8 (13.3) 0 (0) 32 (34.0) 9 (15.0) 4 (17.4)

*Urban: N=94, Slum: N=60, Rural: N=23

15.1 years (SD \pm 1.1). The distribution of study population is summarized in Supplementary Table 1.

Knowledge About Epilepsy

Nearly three-fourth (71.2%) of the students had either heard or read about seizures, while around two-third (63.3%) of them had witnessed someone having seizures. More than half (58.2%) the students, reportedly had relatives or friends suffering from epilepsy. Forty-three percent of the students considered epilepsy as a fatal disease. Most of the students (76.8%) believed that epilepsy could be treated with medicine. Among them, most believed that it causes decrease in frequency of seizures (58.8%) rather than complete cure (21.5%). Only one-fourth of students correctly believed that vaccination does not help in controlling epilepsy. The results were insignificantly different between students of rural, urban and slum areas [Table 1].

Nearly half of the students said physician as the most common source of information followed by relatives (40.7%), media (38.9%), and teachers (35%). Most of the students wrongly opined that epilepsy is a mental disorder (75.1%). Some categorized epilepsy as a physical disorder (37.8%). There were misconceptions prevalent about the causes of epilepsy among students like heart disorder (27.7%), hereditary (20.3%), the result of evil eyes (18.1%) and past sins (5.1%). The students wrongly believed that seizures occur more commonly in young than in old persons (58.7% vs. 43.5%); among men than in women (45.2% vs. 32.2%); among boys than in girls (37.3% vs. 32.2%); and among poor than in rich (28.2% vs. 14.7%). However, there were beliefs like exorcism, rubbing hands, smelling shoes/socks or home remedies as way to treat epilepsy.

Table 2: Knowledge about epilepsy triggers andsymptoms among three study groups

Various aspects of epilepsy	Corr	Total		
	Urban	Slum	Rural	(<i>N</i> =177)
Triggers of seizures in epilepsy				
Stress/tension	63 (67.0)	43 (71.7)	14 (60.9)	120 (67.8)
Discontinuation of antiepileptic medicine	29 (30.9)	23 (38.3)	7 (30.4)	59 (33.3)
Fatigue and fever	24 (25.5)	14 (23.3)	6 (26.1)	44 (24.9)
Sleep deprivation	17 (18.1)	16 (26.7)	1 (4.3)	34 (19.2)
Hunger/remaining hunger	20 (21.3)	10 (16.7)	4 (17.4)	32 (18.1)
Symptoms of seizures in epilepsy				
Rhythmic jerky movements of limbs	55 (58.5)	40 (66.7)	11 (47.8)	106 (59.9)
Falling down	51 (54.3)	40 (66.7)	11 (47.8)	102 (57.6)
Convulsions	50 (53.2)	36 (60.0)	13 (56.5)	99 (55.9)
Sudden loss of consciousness	53 (56.4)	30 (50.0)	14 (60.9)	97 (54.8)
Stiff body	42 (44.7)	31 (51.7)	9 (39.1)	82 (46.3)
Warning signs of seizures in epilepsy				
Headache	25 (26.6)	22 (36.7)	7 (30.4)	54 (30.5)
Mental irritation	22 (23.4)	16 (26.7)	3 (13.0)	41 (23.2)
Abdominal discomfort	4 (4.3)	8 (13.3)	1 (4.3)	13 (7.3)

*Urban: *N*=94, Slum: *N*=60, Rural: *N*=23

Presence of stress was reported as main factor (67.8%) which provokes seizures. However, students had lesser knowledge about absence of factors which could trigger seizures viz. discontinuation of antiepileptic medication (33.3%), deprivation of sleep (19.2%) and remaining hungry (18.1%). Only less than one-third of students correctly knew about warning signs viz. headache (30.5%) and mental irritation (23.2%). Nearly half of them (53.7%) did not know about its symptoms [Table 2].

Nearly 80% of students stated that persons with epilepsy are not able to sense seizure beforehand and 17% did not know about the types of seizures in persons with epilepsy. Students had little knowledge about 'absence seizure'. Most common symptom of absence seizure stated by them was rapid blinking (27.7%). Nearly half of students (54.8%) stated that stiffness of body is the most common symptom post-seizures followed by unconsciousness (46.3%). Again, almost all the responses were not significantly different in students of different residential areas.

Attitudes Toward Epilepsy

Nearly half of the students believed that epilepsy is hindrance to education, while nearly one-third felt that epilepsy interferes with employment (26.6%) and marriage (32.2%). Similarly, most of them (67.8%) believed that persons with epilepsy were neither mad nor insane. On seeing a person having a seizure, 64% of the students would be willing to offer help to the person. However, 43% of the students felt fear on seeing such person followed by sense of worry (34.5%) and pity (26.5%). More than half of the students would advise ayurvedic treatment for epilepsy followed by allopathic (42.4%). However, few students would like to advice visiting religious places (16.4%), wearing amulet (13.6%), practicing exorcism (10.2%) and other measures like ashes (*vibhuti*), *mantra*/magicians to treat epilepsy [Table 3].

Most of the students (70.6%) rightly favored the view of keeping an identity card with a person with known epilepsy, 63.8% felt that such persons should never be left alone, and 51.2% opined that they should not be allowed to drive alone. Around 63% students correctly suggested sending student with epilepsy to school regularly rather than changing school due to illness (9%)

Table 3: Attitude towards	epilepsy	among	three	study
groups				

Cori	ıse*	Total	
Urban	Slum	Rural	(<i>N</i> =177)
39 (41.5)	34 (56.7)	13 (56.5)	86 (48.6)
67 (71.3)	46 (76.7)	17 (73.9)	130 (73.4)
70 (74.5)	36 (60.0)	14 (60.9)	120 (67.8)
63 (67.0)	42 (70.0)	15 (65.2)	120 (67.8)
42 (44.7)	25 (41.7)	8 (34.8)	75 (42.4)
55 (58.5)	34 (56.7)	11 (47.8)	100 (56.5)
	Corr Urban 39 (41.5) 67 (71.3) 70 (74.5) 63 (67.0) 42 (44.7) 55 (58.5)	Correct respon Urban Slum 39 (41.5) 34 (56.7) 67 (71.3) 46 (76.7) 70 (74.5) 36 (60.0) 63 (67.0) 42 (70.0) 42 (44.7) 25 (41.7) 55 (58.5) 34 (56.7)	Correct response* Urban Slum Rural 39 (41.5) 34 (56.7) 13 (56.5) 67 (71.3) 46 (76.7) 17 (73.9) 70 (74.5) 36 (60.0) 14 (60.9) 63 (67.0) 42 (70.0) 15 (65.2) 42 (44.7) 25 (41.7) 8 (34.8) 55 (58.5) 34 (56.7) 11 (47.8)

or withdrawing from the school (6.8%). Regarding employment, 36.2% students suggested that such person should continue in same job rather than leave the job (27.7%) or change job due to illness (14.1%). With regards to marriage, 33.3% students suggested that such persons should not marry due to illness while 23.2% felt that they should marry and live happily. Around 14.7% students felt that such person faced difficulties to get the match or should get married (10.7%) as a curative measure. Around 40.7% students correctly felt that such person has normal pregnancy; however, 32.8% felt that such person should not become pregnant due to fear of having child with epilepsy.

Practices in Management of Epilepsy Seizure

During role play exercise, 52% of the students correctly responded by calling a doctor as soon as the warning signs appear in the person, while around 74% did so after the person

Table 4: Practices assessment of students regarding providing first-aid for seizures in persons with epilepsy

First-aid management of	Corr	Total		
seizures in epilepsy	Urban	Slum	Rural	(<i>N</i> =177)
Call medical help if repeated seizures occur	65 (69.1)	46 (76.7)	20 (87.0)	131 (74.0)
Remove objects as he could hurt himself	55 (58.5)	38 (63.3)	15 (65.2)	108 (61.0)
Introduce something in mouth to avoid tongue bite	33 (35.1)	29 (48.3)	10 (43.5)	72 (40.7)
Take off his specs and loosen tight clothes	30 (31.9)	21 (35.0)	6 (26.1)	57 (32.2)
Turn child to the side	17 (18.1)	13 (21.7)	1 (4.3)	31 (17.5)
Allow fit to run its own course	10 (10.6)	14 (23.3)	3 (13.0)	27 (15.3)
Allow fit to run its own course	10 (10.6)	14 (23.3)	3 (13.0)	27 (15.3)

*Urban: N=94, Slum: N=60, Rural: N=23

fell down and writhed on the floor during an epilepsy seizure. As a preventive measure, 61% of students removed the objects as person with epilepsy could hurt himself with, 40.1% students correctly introduced something into his mouth to prevent tongue-biting or suffocation and 32.2% students took off his specs and loosen tight clothes. Nearly 47% wrongly held the arms and legs of person with epilepsy tightly, while 20.3% threw water on him, 14.7% gave him metal object to hold and 11.9% wrongly put finger into his mouth. Only 15% of students correctly allowed seizure to run its own course [Table 4].

Most of the students scored averagely under different domains (conceptual knowledge, management and life style) as well as total score [Table 5]. There was no significant difference in scores obtained about various aspects of epilepsy among students who lived in urban, rural and slum areas except in domain lifestyle of person with epilepsy. There was no significant difference in management of seizures in a person with epilepsy between students of different residential class [Table 5].

Discussion

The present study revealed that the correct knowledge regarding epilepsy, whether heard or read, was 71% among students of Chandigarh. It was lesser than observed among students in southern India (98%), Canada (100%), Cameroon (95%) and Italy (91%).^[14-17] However, around 52% students in the United States were familiar with epilepsy [Table 6].^[18] Although the students of Chandigarh were less familiar with epilepsy than those of students in southern India, their attitudes were more positive than latter. The proportion of students in our study who thought epilepsy is a hereditary disease (20%) was lower than for Kerala (34%), Canada (45%), Tanzania (46%),

Table 5: Scores obtained by	v students about various as	pects of epilepsy

Various aspects of epilepsy (%)	Response*			Total (<i>N</i> =177)	Total (<i>N</i> =177)	Test	
	Urban	Slum	Rural				
Conceptual knowledge about epilepsy	(maximum sco	re: 54)					
<25	25 (26.6)	14 (23.3)	9 (39.1)	48 (27.1)	160 (90.4)	χ ² =1.02; <i>P</i> =0.60	
25-50	60 (63.8)	39 (65.0)	13 (56.5)	112 (63.3)			
50-75	9 (9.6)	5 (8.3)	1 (4.3)	15 (8.5)	17 (9.6)		
>75	0 (0.0)	2 (3.3)	0 (0.0)	2 (1.1)			
Management of epilepsy (maximum so	core: 18)						
<25	16 (17.0)	8 (13.3)	5 (21.7)	29 (16.4)	136 (76.8)	χ ² =2.02; <i>P</i> =0.36	
25-50	53 (56.4)	39 (65.0)	15 (65.2)	107 (60.4)			
50-75	24 (25.5)	13 (21.7)	3 (13.1)	40 (22.6)	41 (23.2)		
>75	1 (1.1)	0 (0.0)	0 (0.0)	1 (0.6)			
Life style of person with epilepsy (max	timum score: 10)					
<25	21 (22.3)	9 (15.0)	5 (21.8)	35 (19.8)	124 (70.1)	χ ² =10.1; <i>P</i> =0.006**	
25-50	51 (54.3)	24 (40.0)	14 (60.9)	89 (50.3)			
50-75	16 (17.0)	22 (36.7)	3 (13.1)	41 (23.2)	53 (29.9)		
>75	6 (6.4)	5 (8.3)	1 (4.3)	12 (6.8)			
Total score (maximum score: 82)							
<25	17 (18.1)	10 (16.7)	6 (26.1)	33 (18.6)	153 (86.4)	χ ² =1.9; <i>P</i> =0.38	
25-50	63 (67.0)	41 (68.3)	16 (69.6)	120 (67.8)			
50-75	14 (14.9)	8 (13.3)	1 (4.3)	23 (13.0)	24 (13.6)		
>75	0 (0.0)	1 (1.7)	0 (0.0)	1 (0.6)			
*Urban: N=94 Slum: N=60 Bural: N=23	**Highly significat	nt (<i>P</i> <0.01)					

Variable	Canada ^[14]	USA ^[15]	South India ^[16]	Malaysia ^[17]	Italy ^[18]	Cameroon ^[19]	North India [Present]
Year of study	2002	2002	2004	2005	2007	2009	2011
Participants* (students)	College	HS	HS	Univ	UMS, Univ	SS	HS
Age in years (Mean±SD)	20.0±5.4	-	14.9±0.8	21.8±2.5	16.4±1.5, 22 2±2.9	16.8±2.0	15.1±1.1
Heard/read about epilepsy	100	52	98	87	91	95	71
Mental disease	9	19	59	40		16	75
Hereditary	45	-	34	67	24		20
Contagious	-	4	14	5	16	50	16
Object to employment	14	-	29	-			27
Allopathic treatment	91	-	55	-			42

Table 6: Summary c	of studies on	epilepsy	from	different	countries
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*UMS=Upper-middle school, HS=High school, SS=Secondary school, Univ=University, SD=Standard deviation

Malaysia (67%) and Italy (24%).^[14,15,17,19,20] Nearly three-fourth of students in present study, compared with 59% in Kerala, 40% students in Malaysia believed epilepsy as a mental illness whereas in studies from western countries, only 19% of students in USA and 9% in Canada believed that epilepsy is a mental disease.^[14,15,18,20] This reflects the stigma and misconceptions associated with epilepsy in eastern countries higher as compared with western counterparts. The proportion of students who thought epilepsy is a contagious disease was 16% in present study as compared with 14% of Kerala, 60% of Tanzania, 50% of Cameroon, 4% of USA, 5% of Malaysia and 16% of Italy students.[14,16-20] In our study, few students still believed that epilepsy was caused by evil eyes and past sins. The similar belief has also been reported among general populations in several studies from developing countries. ^[20-22] This belief could be a cause of large treatment gap since patients will look for faith-healers despite the availability of qualified personnel.^[23]

Knowledge about warning signs of epilepsy is important in its management as it can give time to bring person to a safer place. In present study, students generally lacked knowledge about warning signs. Similar results were noted in other studies in other parts of world.^[14,15,18]

Nearly half of the students in our study believed epilepsy as hindrance to education. In another study, it was found that school teachers and parents compel the students with epilepsy to either remain away from school or preferred to place them at special school.^[24] Students had positive attitude towards employment and marriage in relation to epilepsy. They felt that epilepsy is not hindrance to employment (73.4%) and marriage (67.8%). Similarly, 88% and 44% of students in Italy expressed favorable attitude towards marriage and employment.^[17] Eighty-four percent of students in Canada also expressed favorable attitude towards employment and marriage.^[15] In contrast, students in Cameroon had high prejudice rates where 64.2% and 41.4% of students would refuse to marry a person with epilepsy and thought person with epilepsy should not be employed in jobs like others.^[16]

Ayurvedic treatment was preferred by more than half of students (56.5%) in the present study which is similar to treatment preference of students in Kerala (60%).^[14] It could be due to the reason that students believed Ayurveda as a treatment of epilepsy while allopathic only causes decrease

in frequency of seizures in epilepsy. Less than one-fifth of students in the present study believed that visit to religious places (16.4%), wearing amulet (13.6%), practicing exorcism (10.2%) and other measures like ashes (*vibhuti*), *mantra*/magicians to treat epilepsy. In contrast, nearly one-third of students in Kerala believed visit to religious place (39.1%) and exorcism (22.1%) helped in curing epilepsy.^[14] In Tanzania, almost half of students believed in witchcraft as a treatment for epilepsy, while most of students (67.3%) in Cameroon recommended God's help for treatment of epilepsy.^[16,19] This belief is again a cause of large treatment gap in known persons with epilepsy.

Nearly three-fourth of students in our study would call a doctor as first-aid measure for a seizure in epilepsy. Similarly, two-thirds of students in Kerala reported that they would like to take a person to a hospital as a first-aid measure for a seizure in epilepsy.^[14] However, proportion of our respondents who believed in wrong and harmful practices, such as throwing water over the person's face or giving the person metal object to hold in order to terminate the seizure were similar to that found in study among students in Kerala.^[14] Owing to very heterogeneous and chronic nature of the epilepsy, it could be expected that children gave a different outlook. The smaller sample size is the limitation of the present study; however, the results cannot be treated as underestimation as they are in concordance with other studies.

Conclusion

It can therefore be concluded that students in Chandigarh had average knowledge about various aspects of epilepsy; however, the knowledge was more as compared with various studies conducted in other developed and developing countries. It was also noted that there was no significant difference in KAP between students who lived in urban, urban slum and rural areas. Hence, it is recommended that the first-aid management of epilepsy should be included in the school curriculum and should not only focus on slum areas. The present study will help in this endeavor by providing baseline data of northern part of India.

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