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KNOWLEDGE, ATTITUDE AND PRACTICE OF EPILEPSY AMONG HEALTH CARE PROFESSIONALS IN A TERTIARY CARE CENTER IN RAJASTHAN

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ABSTRACT: BACKGROND: Despite recent advances in the management of epilepsy the efforts to assess knowledge, attitude and practice towards epilepsy are limited, particularly in the developing countries. **OBJECTIVE:** To delineate the magnitude and scope of this problem, present study was conducted amongst various health personals, which may help in planning awareness programme for them. **MATERIAL AND METHODS:** Self-administered questionnaire was completed by all study subjects. In order to analyze possible difference in answers among courses that deal more directly with the patients with epilepsy and the other group who are not directly dealing with the epilepsy patients, the sample was divided into 2 groups. Group 1 included nursing students and nursing faculty and group 2 included physiotherapy students and physiotherapy faculty. **RESULTS:** Most of our study subjects had heard about epilepsy except Nursing GNM students (20%). Most of the participants in Group B (>70%) and the B.Sc. students (>55%) in comparison to nursing faculty (approx. 15%) believed that epilepsy is a mental illness. Majority (60.3%) of the members of both groups considered epilepsy as hindrance in life but curable. 20% of participants considered epilepsy as hereditary. Most of the faculty (nursing and physiotherapy) was of the opinion that epilepsy could be treated with Ayurvedic or Homeopathic medicine also. **CONCLUSION:** There are major gaps in the knowledge of health care persons for this disease. Misconceptions about epilepsy, are widely prevalent. The present day education, therefore, does not seem to influence the prejudices against persons with epilepsy. Requirement of special education programme is felt to dispel myths and misconceptions about epilepsy.

KEYWORDS: Epilepsy, knowledge, attitude, practice, medical professional.

INTRODUCTION: Epilepsy is one of most prevalent non communicable disease worldwide with prevalence of 0.5 to 1 percent in India.¹ In developing countries like India, lot of superstitions, discriminations, and stigmata are associated with this disease. Religious & sociocultural believes influence the nature of treatment and care received by the people with epilepsy. Sociocultural attitudes continue to have negative impact on management of epilepsy.² Community based studies have shown that better educated individuals have less negative attitude concerning epilepsy.³⁻¹¹ The health care students who will provide care to the patients with epilepsy are likely to be opinion formers in the society. Thus the study was conducted to evaluate the knowledge and attitudes on epilepsy amongst various health personals including nurses and physiotherapists with the aim to assess the level of knowledge and attitudes on epilepsy which may help in planning awareness programme for them.

MATERIAL AND METHODS: The study was carried out in the department of neurology at Mahatma Gandhi medical college and hospital Jaipur. Physiotherapy faculty (n=21), physiotherapy students

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(n=72), nursing faculty (n=23) and nursing students (n=211) out of which 133 belong to GNM and 78 belongs to B.Sc. course were included in the study. The students completed the self-administered questionnaire after signing the consent to participate in the study. The questionnaire presented to the students had questions related to knowledge on aetiology and treatment, attitude in dealing with persons with epilepsy and familiarity with various forms of treatment and management.¹⁰ Most of the questions in the instrument have already been used by other researchers.^{12,13}

In order to analyze possible difference in answers among courses that deal more directly with the patients with epilepsy and the other group who are not directly dealing with the epilepsy patients, the sample was divided into 2 groups. Group 1 included nursing students and nursing faculty and group 2 included physiotherapy students and physiotherapy faculty. 327 students and faculty members who filled the questionnaire were analyzed. In group 1 total 93 and in group 2 total 234 were analysed.

RESULTS: 327(234 in group 1 and 93 in group 2) individuals participated in the study out of which 61% were males and 39% were females. The ages ranged between 17year to 34 years with a mean age of 20.9 in group 1 and 21.3 in group 2.

KNOWLEDGE: Among both groups most of them had heard about epilepsy except nursing (20%) GNM students who had never heard about epilepsy. Most of the participants in Group B (>70%) and the B.Sc. students (>55%) in comparison to nursing faculty (approx.15%) believed that epilepsy is a mental illness. Group1 and group2 members considered hereditary aetiology in 20% of the cases and both were convinced that disease is non-contagious. Majority of group1 members and physiotherapy faculty labelled loss of consciousness and convulsions as epilepsy. In this survey it came out that 4% of nursing faculty, 5% of B.Sc. students and 10% of GNM students were themselves suffering from epilepsy and family history was present in more than 15%. Evil spirits and supernatural power as a cause was enumerated by 15% of the B.Sc. students. (Table1)

ATTITUDE: Majority (60.3%) of the members of both groups considered epilepsy as hindrance in life. Around 14% of GNM students and 38% of B.Sc. students considered that epilepsy was due to committed sins in the past life in contrast to others who refuted the same. Nearly 35% of our students (Nursing and physiotherapy) believed that persons with epilepsy could not lead a happy married life. Approximately 25% reported that people with epilepsy cannot work like others. Regarding first aid on seeing the epileptic attack 4.3% of nursing faculty and around 15% of nursing and physiotherapy students chose to put shoe/onion on the face and also put water in his/her mouth. Group 1 members thought to behave differently with the epileptics in more than 25% cases in contrast to 0.5% members in group 2. (Table2)

PRACTICE: Majority of the participants thought that epilepsy is curable. Priest and tantric treatment would be considered for treating epilepsy by 13% of nursing faculty and 20-30% of nursing students while group 2 members didn't believe in tantric treatment of epilepsy. 100% of faculty (Nursing and physiotherapy) had opinion that epilepsy could be treated with Allopathic medicine. Ayurvedic and homeopathic medicines are also accepted by large segment of participants.

Around 50% of the individuals of group 1 and group 2 individuals were of the opinion that epilepsy has many complications. More than 50% of the participants didn't have the knowledge that

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epileptic attack can be precipitated even by missing one dose. 100% of group B participants were believed that epileptics do not need lifelong treatment. (Table3)

DISCUSSION: This study was planned in 2 groups of subjects—one was nursing (Students and faculty) who were involved frequently with epileptic patients and the other group Physiotherapy (Students and faculty) who were not directly involved into the care of epileptic patients to see the difference in levels of Knowledge Attitude & Practice.

KNOWLEDGE: Studies from developing countries have revealed an awareness rate comparable to those from developed countries. In our study majority of the respondents had heard about epilepsy. Study shows that the awareness of epilepsy amongst faculty (Nursing and Physiotherapy) was comparatively higher than in students. 100% of the faculties had heard about epilepsy. The number of physiotherapy students who had heard about or read about epilepsy(91.66%) is comparable with those reported among university students from Italy(96%).¹⁴ Canada(91%).¹⁵ and Brazil(91.3%).⁴ and is higher than reported among Malaysian University students(86.5%).¹⁶ 20% of GNM Nursing students had never heard about epilepsy. Source of the awareness of epilepsy was mainly from studies and through public media.

In the study by Falavigna A et al.¹⁷ it was observed that majority of students had heard about epilepsy at university. Most of the participants in Group B (>70%) and the B.Sc. students (>55%) in comparison to nursing faculty (Approx.15%) believed that epilepsy is a mental illness. In the Malaysian study, 39.7% of the undergraduate students stated that epilepsy is a form of mental illness.¹⁶ In the Italian study, 45% of the university students considered that epilepsy is a psychiatric disease.¹⁴ this reflects the greater level of misconceptions and stigma associated with epilepsy. This is possibly because school level education is not able to correct this belief. In our study high prevalence of epilepsy observed in participants themselves and their family members suggest possible misinterpretation of epilepsy semiology.

ATTITUDE: Misconceptions about epilepsy are widely prevalent in developing regions. The negative attitude of the literate population is not much different from less literate population. Nearly 5% nursing participants believed that epilepsy is contagious. Results from other studies also suggested that 1-14% persons believed that epilepsy is contagious.¹⁸ Approximately 15% of GNM students and 40% of B.Sc. students think that epileptics have committed sins in their past life. In Malaysian study, when asked if epilepsy is caused by evil spirits, 5.3% answered no and 20.1% did not know.¹⁶

More than 60% of the population reported that epilepsy created hindrance in normal life. Nearly 35% of our students (Nursing and physiotherapy) believed that persons with epilepsy could not lead a happy married life. This attitude in our participants may be related to their belief that epilepsy is a hereditary and mental illness. In a study by Deepak Goel et al.¹² large number of the students were of belief that a person with epilepsy should not marry (73.6%). The percentage of the respondents who objected their children playing/studying with a child with epilepsy were not more than 13% in Group A in compared to Group B(<5%). Approximately 25% reported that people with epilepsy cannot work like others. This misconception is maximum among GNM students (36.84%).

In study by K. Radhakrishnan et al.¹⁰ The percentage of respondents who thought that epilepsy was a form of mental illness, who objected to their children playing with a child with epilepsy, and who objected to employing a person with epilepsy were 27%, 11% and 44% respectively, compared

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with 3%, 6% and 9% in the United States³. The mistaken belief of putting shoe/onion on his face, giving bunch of keys in hands or other practices has been observed in not more than 20% of the participants. In study by Falavingna A et al.¹⁷ these mistaken ideas were observed in 38.8% of the participants. Another Brazilian study demonstrated that 71% of the first year students of health care related disciplines and 32% of the last year students follow these practices.⁴ These data suggest that still there is lack of information about assistance and safe handling of a seizure in health care courses.

PRACTICE: It is encouraging to note that large proportion of our respondents were aware of the optimal treatment practices concerning epilepsy. Most people in our study preferred the advice of allopath's, although ayurvedic and homeopathic medicines are also accepted by a large segment of participants. One significant finding in our study was that 100% of Group B participants were aware of the fact that epileptics do not need lifelong treatment. This awareness was comparatively less among Group A respondents (<50%). In a study by Deepak Goel et al.¹² 72.5% students from Uttarakhand believed that person with epilepsy need lifelong therapy. Most Indians have an abiding faith in the indigenous Ayurvedic form of treatment.

Another reason for popularity of Ayurvedic medicines is the easy accessibility to practitioners of the system, especially in rural India. More than 70% of participants believed that epilepsy can be cured. These results are better in comparison to study conducted by Kim et al.¹⁸ on the positive trends in public attitudes towards epilepsy after a public education campaign among rural Koreans. We found out that more than 50% of the people believed that missing a dose of their antiepileptic drug would result in a fit. In our study in 2000,¹³ majority of people believed that missing a dose would not cause any harm. The percentage of people who believed that Tantric treatment is good for epilepsy among physiotherapy participants was less (<5%) compared to those among nursing participants (>10%). This result is in contrast to a study on school teachers of Nigeria where 51% of the teachers preferred Spiritual healing and traditional treatment.¹⁹

CONCLUSION: This survey shows that although the health care students and faculties were familiar with epilepsy, there are major gaps in their knowledge of this disease. Based on our observations and a review of literature, it becomes evident that misconceptions about epilepsy, such as epilepsy is a mental disease, that runs in family and a person with epilepsy should not be married and employed are widely prevalent. The negative attitudes of the literate population are not much different from the less literate populations. The present day education, therefore, does not seem to influence the prejudices against persons with epilepsy. Requirement of special education programme for teachers and students is felt to dispel myths and misconceptions about epilepsy.

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Sl. No.	Questions	Group 1			Group 2	
		Nursing faculty n=23	Nursing students(n=211)		Physiotherapy faculty n=21	Physiotherapy students n=72
			GNM n=133	B.Sc. n=78		
		Positive response				
1	Have you ever heard of epilepsy?	23 (100)	93 (69.9)	71 (91.02)	21 (100)	66 (91.66)
2	Do you know a person suffering from epilepsy?	7 (30.43)	27 (20.3)	36 (46.15)	9 (42.85)	15 (20.83)
3	Is epilepsy a mental illness?	4 (17.39)	14 (10.52)	44 (56.41)	15 (71.42)	57 (79.16)
4	Is Epilepsy an organic brain problem	12 (52.17)	67 (50.37)	56 (71.79)	12 (57.14)	54 (75)
5	Is Epilepsy known to occur in family	4 (17.39)	27 (20.3)	19 (24.35)	15 (71.42)	15 (20.83)
6	Can Epilepsy spread by contact?	1 (4.3)	7 (5.2)	3 (3.8)	0	0
7	What do you think is cause of Epilepsy?					
a	Don't know	6 (26.08)	7 (5.2)	4 (5.1)	0	12 (16.66)
b	Organic brain disease	10 (43.47)	62 (46.6)	53 (67.94)	6 (28.57)	24 (33.33)
c	Hereditary disorder	8 (34.78)	45 (33.83)	18 (23.07)	0	3 (4.16)
d	Birth defect	8 (34.78)	44 (33.08)	9 (11.53)	0	0
e	Evil spirit	0	0	2 (2.5)	0	0
f	Super natural cause	0	0	12 (15.38)	0	3 (4.16)
g	Mental disorder	1 (4.3)	1 (0.75)	4 (5.1)	15 (71.42)	30 (41.66)
h	Blood disorder	2 (8.6)	1 (0.75)	4 (5.1)	0	0
i	other (please specify')	3 (13.04)	51 (38.34)	3 (3.84)	0	0
8	What do you think an Epilepsy attack is?					
	Convulsion	18 (78.26)	87 (65.41)	31 (39.74)	15 (71.42)	27 (37.5)
b	Loss of consciousness	14 (60.86)	84 (63.15)	40 (51.28)	3 (14.28)	30 (41.66)

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Sl. No.	Questions	Group 1			Group 2	
		Nursing faculty n=23	Nursing students(n=211)		Physiotherapy faculty n=21	Physiotherapy students n=72
			GNM n=133	B.Sc. n=78		
		Positive response				
c	Mental attack	2 (8.6)	5 (3.7)	15 (19.23)	0	6 (8.3)
d	Behavioral change	7 (30.43)	22 (16.54)	14 (17.94)	0	12 (16.66)
e	Period of amnesia	9 (39.13)	34 (25.56)	8 (10.25)	0	3 (4.16)
f	other (please specify)	2 (8.6)	10 (7.5)	4 (5.1)	0	0
9	You know about epilepsy from?					
a	Studies	20 (86.95)	88 (66.16)	53 (67.94)	21 (100)	36 (50)
b	Researched about it	7 (30.43)	20 (15.03)	3 (3.84)	0	0
c	Attended an epilepsy camp	13 (56.52)	55 (41.35)	18 (23.07)	0	12 (16.66)
d	Yourself have it	1 (4.3)	14 (10.52)	4 (5.1)	0	0
e	Some family member or friend has it	11 (47.82)	21 (15.78)	11 (14.10)	0	12 (16.66)
f	Through television/ internet ads	17 (73.91)	53 (39.84)	12 (15.38)	0	12 (16.66)

Table 1: Knowledge Of Epilepsy

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Sl. No.	Questions	Group 1			Group 2	
		Nursing faculty n=23	Nursing students (n=211)		Physiotherapy faculty n=21	Physiotherapy students n=72
			GNM n=133	B.Sc. n=78		
		Positive response				
1	Epilepsy creates hindrance in normal life	14 (60.8)	112 (84.21)	49 (62.82)	15 (71.42)	63 (87.5)
2	A person with epilepsy should not marry	2 (8.6)	40 (30.07)	30 (38.46)	3 (14.28)	24 (33.33)
3	A person with epilepsy will not have normal sexual relations	3 (13.04)	72 (54.13)	28 (35.89)	3 (14.28)	18 (25)
4	A person with epilepsy should not study	4 (17.39)	43 (32.33)	24 (30.76)	0	15 (20.83)
5	A person with epilepsy should not work	4 (17.39)	49 (36.84)	22 (28.20)	0	18 (25)
6	Society should behave differently with a person with epilepsy	6 (26.08)	35 (26.31)	29 (37.17)	0	3 (4.16)
7	Would you like to play/study with an epileptic child?	20 (86.95)	105 (78.94)	63 (80.76)	21 (100)	69 (95.83)
8	If you see a person having epileptic attack what will you do?					
a	Put shoe/union on his face	1 (4.3)	25 (18.79)	10 (12.82)	0	12 (16.66)
b	Give bunch of keys in his hand	0	0	1 (1.28)	0	3 (4.16)
c	Take him to hospital	22 (95.65)	89 (66.91)	54 (69.23)	21 (100)	51 (70.83)
d	Put water on his/her face	2 (8.6)	9 (6.7)	12 (15.38)	0	6 (8.3)
e	Other (please specify)	3 (13.04	60 (45.11)	15 (19.23)	0	0
9	Have epileptics committed sins in the past life?	0	19 (14.2)	30 (38.46)	0	0

Table 2: Attitude Towards Epilepsy

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Sl. No.	Questions	Group 1			Group 2	
		Nursing faculty n=23	Nursing students (n=211)		Physiotherapy faculty n=21	Physiotherapy students n=72
			GNM n=133	B.Sc. n=78		
		Positive response				
1	Can epilepsy be treated with Allopathic medicine?	23 (100)	107 (80.45)	61 (78.20)	21 (100)	72 (100)
2	Can epilepsy be treated with Homeopathic medicine?	22 (95.65)	106 (79.69)	48 (61.53)	18 (85.71)	66 (91.66)
3	Can epilepsy be treated with Ayurvedic medicine?	21 (91.30)	116 (87.21)	57 (73.07)	21 (100)	72 (100)
4	Is Ayurvedic treatment the only option for epilepsy?	2 (8.6)	13 (9.7)	6 (7.6)	0	0
5	Does an epileptic patient need lifelong treatment?	6 (26.08)	32 (24.06)	36 (46.15)	0	0
6	A person with epilepsy should not miss even a single tablet	13 (56.52)	86 (64.66)	45 (57.69)	21 (100)	27 (37.5)
7	Drug used in epilepsy will have many side-effects	10 (43.47)	77 (57.84)	35 (44.87)	9 (42.85)	54 (75)
8	Tantric (holy) treatment is good for epilepsy	3 (13.04)	30 (22.55)	27 (34.61)	0	3 (4.16)
9	Priest can treat epilepsy better?	2 (8.6)	22 (16.54)	25 (32.05)	0	6 (8.3)
10	Does an epileptic patient require lifelong treatment?	8 (34.78)	35 (26.31)	36 (46.15)	0	3 (4.16)
11	Can epilepsy be cured?	17 (73.91)	118 (88.72)	64 (82.05)	21 (100)	66 (91.66)

Table 3: Practice in Epilepsy

Note- "n" denotes total number of subjects in a particular category and data in "(" represents % out of total number in that category.

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