

## KNOWLEDGE, ATTITUDE AND PRACTICE OF EPILEPSY AMONG UNDERGRADUATE MEDICAL AND NURSING STUDENTS IN RAJASTHAN

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### ABSTRACT

#### BACKGROUND

Aim of this study is to assess and compare knowledge, attitude and practice amongst nursing students and MBBS students in a tertiary care centre.

#### MATERIALS AND METHODS

All participants completed the self-administered questionnaire after signing the consent to participate in the study. A questionnaire was designed to test the knowledge on aetiology and treatment, attitude in dealing with persons with epilepsy and familiarity with various forms of treatment and management. Possible difference in answers were analysed amongst nursing and MBBS students.

#### RESULTS

Majority of students with both groups had heard about epilepsy. Around 40% of MBBS students in comparison to nursing students approx. 27% believed that epilepsy is a mental illness. Around 76% of nursing students in comparison to MBBS students approx. 50% believed that epilepsy creates hindrance in normal life. Majority of individuals think that epilepsy is curable. More than 75% of participants in both groups had opinion that epilepsy can be treated with allopathic medicine.

#### CONCLUSION

Lots of superstition and misbelief exists amongst health care providers. Present study also depicts the same.

#### KEYWORDS

Knowledge, Attitude, Practice, Epilepsy

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#### BACKGROUND

Epilepsy is one of the commonest neurological disorders with marked sociocultural stigma.<sup>1</sup> Epilepsy afflicts 50 million people all over the world, almost 80% of whom belong to developing countries and nearly three fourths of these patients do not receive the appropriate treatment.<sup>2</sup> Further studies have reported the global incidence of epilepsy to be generally between 5 to 10 cases per 1000 people. The all inclusive rate includes the incidence of 50 people per 100,000 persons and these incidences are multifactorial that vary according to the seizure types, seizure presentation and antiepileptic drugs administered.<sup>3</sup> It is estimated that there are more than 10 million persons with epilepsy in India. Its prevalence is about 1% in our population.<sup>4</sup> The prevalence is higher in the rural (1.9%) compared to urban population (0.6%).<sup>5,6</sup> In developing countries like India, lots of

superstitions, discriminations, and stigmata are associated with this disease. Students in a medical fraternity would be one of the primary sources of information as doctors in the future and thus it is important that these future health care professionals be well informed about epilepsy and take an appropriate attitude towards the disease. Thus, the study was conducted to evaluate the knowledge and attitude on epilepsy amongst nursing students (GNM and B.Sc) and MBBS students (first year and final year) with the aim to assess the level of knowledge and attitudes on epilepsy which may help in planning awareness programme for them.

#### MATERIALS AND METHODS

The study was carried out in the Department of Neurology at Mahatma Gandhi Medical College and Hospital Jaipur. A questionnaire designed to test the knowledge, attitude and practice regarding epilepsy was used. The questionnaire was distributed to Nursing students (n=211), group A out of which 133 belong to GNM and 78 belong to B.Sc students and MBBS students (n=200), group B out of which 100 belong to first year MBBS students and 100 belong to final year students, who volunteered to participate in this study. Most of the questions in the instrument have already been used by other researchers.<sup>[7,8]</sup>

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**RESULTS**

411 participated (n=211) in group A (GNM 133 and B.Sc students 78) and n=200 in group B (first year 100 and final 100 Students).

**KNOWLEDGE**

Among both groups, most of them had heard about epilepsy and majority of participants in both groups believe epilepsy is an organic brain problem. Concerning the causes of epilepsy around 27% of participants thought epilepsy is a mental illness, the proportion is 40% in group B participants. It is observed that 25% of participants in group B consider birth defect and blood disorder as a cause of epilepsy.

Around 55-58% of participants (Group A) labelled loss of consciousness and convulsions as epilepsy. In this survey, it came out that family history was present in around 21-39% in both groups. Supernatural power as a cause was enumerated by 5% of nursing students.

**ATTITUDE**

Majority (76%) of participants of group A considered epilepsy as hindrance in life and 33% think epileptic person should not

marry, and around 50% of participants of group B considered epilepsy as a hindrance in life and 25% think epileptic person should not marry. Among both groups, majority of participants would like to play/study with epileptic child. Regarding the first aid on seeing the epileptic attack, majority of members in both groups would take patient to the hospital and about 16% in group A members would like to put water/shoe/onion on face and around 23% in group A participants thought epileptics have committed sins in past life.

**PRACTICE**

It is observed that 86% of participants in group A thought that epilepsy is curable. Majority of participants in both groups considered epilepsy can be treated with allopathic medicine, followed by ayurvedic and homeopathic treatment (40-50%) by group B participants. Both groups were of view that an epileptic patient needs lifelong treatment (32-44%) and around 50% participants in both groups thought drugs used in epilepsy would have many side effects. If we talk about treatment compliance, 50% in both groups have knowledge that patients should not miss even a single dose.

Sl. No.	Questions	NURSING STUDENTS (Group-A) n=211	%	MBBS Students (Group-B) n=200	%
		YES		YES	
1	Have you ever heard of epilepsy?	164	77.73	174	87
2	Do you know a person suffering from epilepsy?	63	29.86	50	25
3	Is epilepsy an organic brain problem	123	58.29	119	59.5
4	Is epilepsy known to occur in family	46	21.8	78	39
5	Can epilepsy spread by contact?	10	4.74	1	0.5
6	What do you think is the cause of epilepsy?				
a	Don't know	11	5.21	34	17
b	Organic brain disease	115	54.5	118	59
c	Mental illness	58	27.49	81	40.5
d	Birth defect	53	25.12	5	2.5
e	Evil spirit	2	0.95	-	-
f	Super natural cause	12	5.69	3	1.5
g	Blood disorder	54	25.59	-	-
H	other (please specify)				
7	What do you think an epilepsy attack is?				
A	Convulsion	118	55.92	86	43
B	Loss of consciousness	124	58.77	49	24.5
C	Mental attack	20	9.48	37	18.5
D	Behavioural change	36	17.06	14	7
E	Period of amnesia	42	19.91	11	5.5
F	other (please specify)	14	6.64	-	-
8	You know about epilepsy from?				
A	Studies	141	66.82	81	40.5
B	Researched about it	23	10.9	1	0.5
C	Attended an epilepsy camp	73	34.6	1	0.5
D	Yourself have it	18	8.53	-	-
E	Some family member or friend has it	32	15.17	21	10.5
f	Through television/internet ads	65	30.81	26	13

**Table 1: Knowledge of Epilepsy**

Sl. No.	Questions	NURSING STUDENTS (Group-A) n=211	%	MBBS Students (Group-B) n=200	%
		YES		YES	
1	Epilepsy creates hindrance in normal life	161	76.3	100	50
2	A person with epilepsy should not marry	70	33.18	5	2.5
3	A person with epilepsy will not have normal sexual relations	100	47.39	3	1.5
4	A person with epilepsy should not study	67	31.75	1	0.5
5	A person with epilepsy should not work	71	33.65	2	1
6	Society should behave differently with a person with epilepsy	64	30.33	18	9
7	Would you like to play/study with an epileptic child?	168	79.62	167	83.5
8	If you see a person having epileptic attack what will you do?				
a	Put shoe/onion on his/her face	35	16.59	11	5.5
b	Place bunch of keys in his/her hand	1	0.47	1	0.5
c	Take him/her to hospital	143	67.77	138	69
d	Put water on his/her face	21	9.95	16	8
e	Other (please specify)	75	35.55	-	
9	Have epileptics committed sins in the past life?	49	23.22	9	4.5

**Table 2: Attitude towards Epilepsy**

Sl. No.	Questions	Nursing Students (Group-A) n=211	%	MBBS Students (Group-B) n=200	%
		Yes		Yes	
1	Can epilepsy be treated with Allopathic medicine?	168	79.62	154	77
2	Can epilepsy be treated with Homoeopathic medicine?	154	72.99	80	40
3	Can epilepsy be treated with Ayurvedic medicine?	173	81.99	102	51
4	Is Ayurvedic treatment the only option for epilepsy?	19	9.01	13	6.5
5	Does an epileptic patient need lifelong treatment?	68	32.23	89	44.5
6	A person with epilepsy should not miss even a single tablet	131	62.09	98	49
7	Drug used in epilepsy will have many side-effects	112	53.08	99	49.5
8	Tantric (holy) treatment is good for epilepsy	57	27.01	8	4
9	Priest can treat epilepsy better?	47	22.27	3	1.5
10	Can epilepsy be cured?	182	86.26	137	68.5

**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.

**DISCUSSION**

The study shows knowledge, attitude and practice amongst medical students (200) and nursing students (211).

**KNOWLEDGE**

Most of the participants from both the groups had heard about epilepsy. Group A (Nursing Students) had heard about epilepsy (77.73%) through studies, journals and newspaper. In similar studies from Italy (96.0%),<sup>9</sup>Canada (91.0%),<sup>10</sup> Brazil (91.3%),<sup>11</sup> Malaysia (86.5%),<sup>12</sup> participants had heard about epilepsy. And 87% of medical students (group B) had heard about epilepsy. Similar studies from Jordan<sup>13</sup> and Malaysia<sup>12</sup> showed that around 77.6% of medical students had heard about epilepsy. In group B, 25% of students knew someone (members and friends) suffering from epilepsy while 46% students from a study in Southern Nigeria had witnessed persons with epilepsy. We think it is probably due to increase in awareness on epilepsy which helps them to recognise as compared to our studies. Around 54% of group A participants

considered epilepsy is an organic brain disease, 27% thought as mental illness and 25% thought as a birth defect/blood disorder and supernatural cause was enumerated by 5% of nursing students followed by evil spirit 0.95%.

Whereas 59% of group B participants thought epilepsy is an organic brain disease, 40% thought as mental illness. A similar study from Malaysia<sup>12</sup> showed 39.7% of the undergraduate students stated that epilepsy is a form of mental illness. This reflects the level of misconception and stigma associated with epilepsy in nursing students as compared to MBBS students.

**ATTITUDE**

Misconception about epilepsy is widely prevalent in developing regions. In our study, 76% of participants in group A thought epilepsy creates hindrance in life as compared to group B i.e. 50%. It is surprising to know that 33% of participants of group A thought that an epileptic person should not marry and 47% thought that they cannot have normal

sexual relationship and around 30% thought an epileptic person should not work/play. While in group B, 1-2% thought epileptic person should not marry/study/work. Our study shows that misconception about epilepsy in nursing students is much more and it needs to be taken care of by spreading awareness about epilepsy. Most negative attitude towards a person with epilepsy was from Jordan where students refused to marry (50.5%) and children with epilepsy would have disability (44.4%).<sup>13</sup> The mistaken belief of putting shoe/ornament on an epileptic person's face, placing bunch of keys in hands or other practices has been observed in more than 16% of students (Group A). In a study by Falavinga A et al,<sup>14</sup> these mistaken ideas were observed in 38.8% of the sample. Another Brazilian study<sup>11</sup> demonstrated that 71% of the first year students of health care related disciplines and 32% of the last year students follow these practices.

### PRACTICE

It is encouraging to know that around 78% participants in both groups were of view that allopathic medicine is the major stay of treatment for epilepsy. Group A participants believed that epilepsy could be treated with homeopathic (72%) and ayurvedic (81%) treatment. Whereas in group B, 40% thought epilepsy can be treated with homoeopathic medicine and 50% thought epilepsy can be treated with ayurvedic medicine. 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. It is surprising in a study from medical community [Northern Nigeria] where majority of respondents (47%) opted for spiritual methods. This was followed by orthodox (34%) and use of traditional herbal medicines (19%) for treating epilepsy.<sup>15</sup> The use of spiritual healing is even worse in the study, most commonly reported treatment methods were - holy Quran (71.4%), medication (71.3%) and herbs (29.3%)<sup>15</sup>. In a study of medical students of Southern Nigeria around 47.9%<sup>16</sup> would take them to church while some of the health care persons would put some object in mouth to protect the tongue. Whereas in our study, around 22% participants of groups A would take the person to a priest and around 27% would take the person to a tantric. Around 50% of participants in both groups believed that missing a dose of their antiepileptic drug results in an epileptic attack. These data suggest lack of information about assistance and safe handling of seizures in these health care courses.

### CONCLUSIONS

The study shows that the nursing students and MBBS students were familiar with epilepsy. But major gaps exist in their attitude and practice in regards to this disease. Nursing students' knowledge and attitude about epilepsy needs to improve as they provide care to epileptics. Regular

organisation of awareness camps about epilepsy could be of immense help for medical students and nurses.

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