

## KNOWLEDGE ABOUT EPILEPSY AMONG TEACHERS AND EPILEPTIC PATIENTS

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**SUMMARY** — 223 epileptics patients and their families and 136 teachers from public and private schools were submitted to similar questionnaires related to inheritance, transmission, cure, complication rates, care during seizures, need for information on the disease, habits, comparison with other diseases and to the educational and social performances of epileptics. Cure and complication rates accounted for the main differences between those populations. Epileptics could recognize a bigger number of complications but still expected to be cured from the disease. The majority of teachers and patients have never been informed about epilepsy and this finding was related to the big number of equivocal answers obtained from them. Put together, the data showed that social and educational performance of epileptic patients could be disturbed by medical and social parameters. Some, of them could be improved by an educational program towards these aspects of epilepsy.

### **Conhecimentos acerca de epilepsia entre professores e entre pacientes epiléticos.**

**RESUMO** — 223 pacientes epiléticos e suas famílias e 136 professores da rede pública e privada foram submetidos a questionários similares que incluíam questões relacionadas à hereditariedade, transmissibilidade, cura, complicações, cuidados durante as crises, necessidade de informações acerca da doença, hábitos, comparações com outras doenças e performances sociais e educacionais de epiléticos. Taxas presumidas de cura e complicações representaram a maior diferença entre as duas populações. Epiléticos reconhecem um maior número de complicações mas persistem acreditando na cura de sua moléstia. A maioria dos professores e pacientes jamais havia recebido qualquer informação sobre epilepsia e isto possivelmente relaciona-se às respostas equívocas que foram obtidas. Em suma, os dados sugerem que as performances sociais e educacionais de pacientes epiléticos podem ser modificadas por parâmetros médicos e sociais, alguns dos quais podem ser melhorados através de um programa educacional direcionado aos aspectos sociais das epilepsias.

**Epilepsy is one of the commonest neurologic diseases. Its 1.3% prevalence rate in São Paulo<sup>6</sup> turned it to be one of our public health problems and the frequent need for continuous medical care and antiepileptic drugs availability justifies the careful planning of a social program related to this syndrome. There is a small amount of data on the social approach to epilepsy in the medical literature 2,5,8,9. There is almost no information from Brazilian centers 1,7. 50% of the epilepsies began before the second decade of life. Teachers are, therefore, a natural target population to study the behaviour towards epilepsy.**

**This is a pilot study on the knowledge about epilepsy among teachers and epileptic patients and their families, aiming to gain support for future research and social approaches.**

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## METHODS

223 consecutive adult epileptic patients and their respective families were interviewed by the nursing staff as part of their evaluation at our out-patient clinic. Questions regarding inheritance, transmittance, cure, complication rates, care during seizures, need for information on the disease, habits, comparison of the syndrome with other diseases and the social impact of epilepsy were asked.

136 teachers from public and private schools (56 from private and 80 from public schools), distributed equally among primary, secondary and tertiary levels were submitted to a similar questionnaire by the same staff which also included questions regarding their behaviour towards epileptics pupils and their beliefs on the educational and social performance of these students. The schools to be visited were chosen aleatorily but not in a systematic equiprobabilistic fashion.

Items related to both populations were compared and individual population bias were analysed.

## RESULTS

Answers related to inheritance, transmission, cure, complication rates, care during seizures and to the severity of epilepsy and other diseases could be compared in the two populations.

The majority of both patient and teachers populations do not believe in the possibility of transmission of epilepsy but still 6-32% of them gave a positive answer. Almost 50% of the patients believe in an inherited nature of epilepsy. This is not the case; among teachers (19-23%).

Cure and complication rates were issues of disagreement between the two populations. 80% and 88% of the patient population believe in cure or complications of epilepsy respectively, while only 26-27% and 62-63% of the teachers did so (Table 1).

Care during the seizure among teachers consisted mainly of restrictive measures (42-63%) (Table 2). The former are also practiced by the families of epileptic patients, but at a lower frequency.

	Patients (%)		Public Schools (%)		Private Schools (%)	
	YES	NO	YES	NO	YES	NO
Inheritance	54.3	45.7	23.7	67.5	22.5	77.5
Transmission	32.0	68.0	7.4	92.5	10.0	90.0
Cure	80.0	20.0	26.2	62.5	33.5	66.5
Complications	88.0	12.0	27.5	72.5	19.6	81.4

Table 1 — Basic knowledge about epilepsy among patients and teachers.

	Patients (%)	Public Schools (%)	Private Schools (%)
Restrictive Measures	26.9	42.5	62.5
Lay Down	21.4	81.2	51.7
Empirical Measures	20.5	2.2	3.7
None/Others	26.5	23.7	28.6

Table 2 — Post-ictal care provided by teachers and patient's families.

	PRIVATE SCHOOLS (N)			PUBLIC SCHOOLS (N)		
	YES	NO	DON'T KNOW	YES	NO	DON'T KNOW
EDUCATED ON EPILEPSY	13	42	1	16	64	-
EPILEPTIC STUDENT	13	43	-	30	50	-
SPECIAL CLASS FOR EPILEPTICS	5	50	1	10	70	-
CAN RECOGNIZE ABSENCES	11	42	3	15	61	4
SEIZURES AND BRAIN DAMAGE	19	33	4	19	50	11
SEIZURES AND POOR LEARNING	18	32	6	26	48	6
SEIZURES AND ALTERED BEHAVIOUR	8	36	12	14	49	17
SEIZURES AND DEATH	14	36	5	20	55	5
SEIZURES LEADING TO OTHER DISEASES	7	40	9	11	58	11
DRUGS LOWER SCHOOL PERFORMANCE	18	32	16	26	48	6
NORMAL LEISURE ACTIVITIES	23	33	-	70	9	1
MARRYING AND HAVING CHILDREN	28	26	2	74	3	3
DISRHYTHMIC AND EPILEPSY	9	40	5	10	61	9

Table 3 — Data on the educational and social performances of epileptic patients.

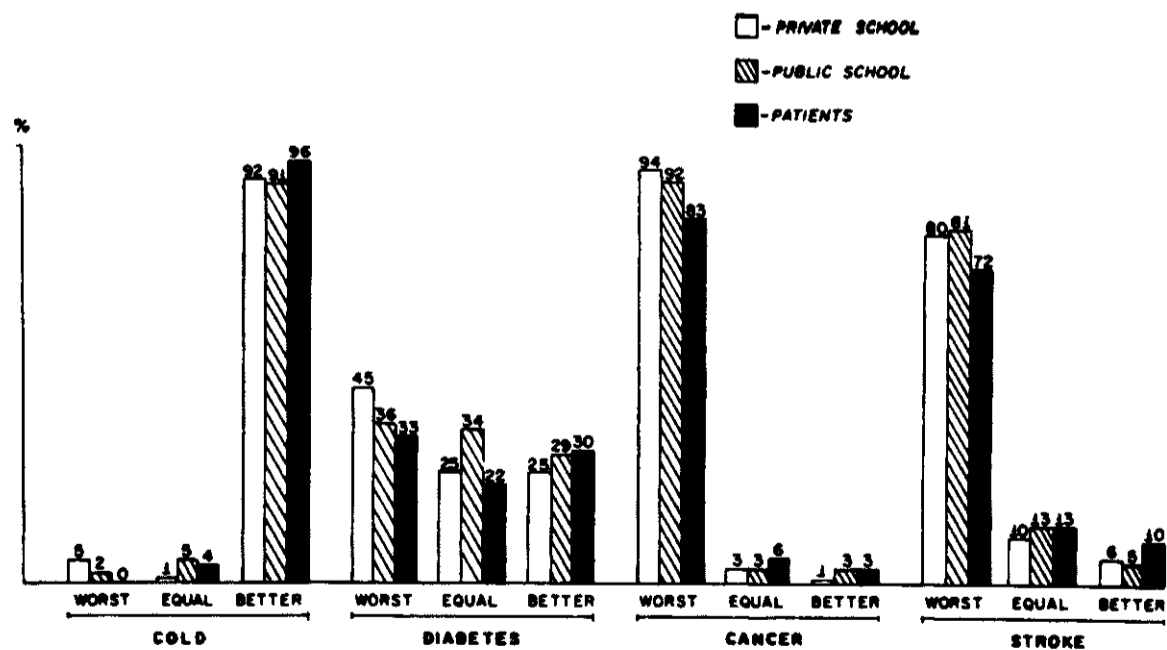


Table 4 — Relative severity of epilepsy and other diseases as viewed by epileptics and teachers. «Worst»: quoted disease (cold, diabetes, cancer, stroke) is «worst» than epilepsy. The same for «equal» and «better».

There were no significant differences between teachers from private and public schools regarding the preceding issues.

An overview is given in Table 3 on answers from the teachers for the questionnaire regarding their behaviour towards their epileptic students and their beliefs on the educational and social performances of them. More than 60% of these teachers have never been educated on epilepsy or have had any epileptic student. Most of them who answered to specific questions do not believe that there is any specific educational deficit in epileptic students but a disturbing number of them did not answer to the questions or gave a positive answer.

The only significant difference between private and public teachers appeared in social items. Private school teachers tend to be more strict to the type of activity and/or social roles epileptics could perform than public school teachers. 58% of them do not believe epileptic students could join current leisure activities and 48% agreed that these students could not marry or have children.

Cold, diabetes, cancer and stroke were rated as better, worst or equal to epilepsy by both populations. As can be seen in table 4, the ranking from both populations was mainly acceptable from a medical point of view but still a fraction of both populations gave wrong answers.

#### COMMENTS

Epilepsy is a multifactorial syndrome and despite the fact that many medical issues had been solved, epileptic patients have to face non-medical problems. The specific microenvironment for each patient would be determined by how his medical and social matters could be handled.

The majority of the epilepsies began before the third decade of life. During this period formal (school) and non-formal (social) education is the main activity of these individuals. Thus, teachers represent a good population to study the social behaviour towards epilepsy. Opinions on cure and complication rate were the main difference between teachers and patients. Epileptics are obviously more aware of possible complications but are still more confident in getting cured of the disease than teachers.

Generally speaking, many answers were in agreement with our current medical knowledge, but a disturbing high number of equivocal answers are always present. Mental deterioration, other neuropsychiatric disorders, heart attacks and death are still quoted as direct effects of the epilepsies. More than 60% of the teachers have never received any information on epilepsy or have had an epileptic student. This might explain the number of questions that remained unanswered by many of them. Since teachers are in direct contact with epileptic students, these results also suggest the creation of a national educational program including information on epilepsy directed to teachers.

Took together, the above data suggest that despite the fact that teachers had a high-school or university degree (96%) and a high probability of having an epileptic student during their life, their knowledge about epilepsy, as is the case among epileptics themselves, is only elemental.

This pilot study indicates that a broader population based equiprobabilistic research project should be started regarding the educational and social aspects of epilepsy 3,4.

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