

ECT practice in Central-Eastern-European countries

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Beginning of the story in Budapest, 1934



László Meduna 1896-1964



Royal Hungarian Institute of Psychiatry
and Neurology at Lipótfűzfő

ECT practice in Hungary nationwide survey from 2002

ORIGINAL ARTICLE

Rates of Electroconvulsive Therapy Use in Hungary in 2002

G. Gazdag, MD,* N. Kocsis,† and A. Lipcsey, MD, PhD, Med. Habil.‡

Objective: In Hungary there has been no systematic evaluation of ECT use since 1992. Nine years ago, the legal regulation of ECT practice changed. Since 1994, the collaboration of a specialist in anesthesiology is a legal obligation. However, the introduction of the new antipsychotic and antidepressant drugs expanded the possibilities in psychopharmacological treatment. These events basically influenced ECT use. The aim of this study was to obtain an overview of ECT practice in Hungary after these changes.

Methods: A 13-item containing questionnaire was sent to all psychiatric departments.

Results: All departments except 1 replied by mail, by phone, or by e-mail. Forty-three departments indicated the use of ECT, but in clinical practice only 34 departments applied ECT in 2002. The average number of treated inpatients was 9 on ECT using departments. Altogether 0.6% of all hospitalized psychiatric inpatients received ECT in 2002. The indication for ECT was schizophrenia in 55.6% of the patients and affective disorder in 40% of the cases. Mostly bitemporal electrode placement was used usually thrice weekly. Most commonly used sleep induction agents were thiopental and propofol.

Conclusion: The rate of ECT use in Hungary is significantly lower than in the United States, in the United Kingdom, or in the Scandinavian countries and similar than in Hong Kong. The indication of ECT was schizophrenia in 55.6% of the cases.

Key Words: ECT use, Hungary, questionnaire, epidemiology
(*J ECT* 2004;20:42–44)

The origin of the convulsive treatment goes back to 1934, when Laszlo Meduna treated the first catatonic schizophrenic patient in Budapest. He used intramuscular camphor injection for seizure induction.¹ Four years later Cerletti and Bini was the first who induced seizure with electrical stimulation.²

The rate of ECT use was changed several times since its introduction. It was widely used in many indications till the

appearance of the antipsychotic and antidepressant drugs. In the 1950s, in consequence of the widespread use of the new drugs, ECT use decreased, and the indications of the treatment coerced.³ Since the 1970s, there has been a renaissance in the use of ECT use, observed mostly in North America and in Western Europe.⁴ In the 1990s again a slow decrease in the use of ECT can be detected in Western Europe,⁵ while in some Asian countries a high rate of ECT use in schizophrenia has been published.⁶

Rate for the use of ECT can be easily calculated in those countries (United States, United Kingdom, Australia) where central databases exist. In many countries as well as in Hungary there is no central statistical collection of data concerning ECT use. In these countries the rate of ECT use can be estimated from questionnaire studies or from individual data of different institutes.

The use rate varies among countries and also among regions in the same country. Sometimes 5- to 10-fold differences can be observed. The surveys in the United States in the 1970s and 1980s reported from a 1.2–7.4% rate of ECT use in hospitalized patients. The indication of the treatment was depression in 60–70% of the cases.^{7–10} In Great Britain a large between-regions variation also can be detected on the basis of the publications.¹¹ In 65% of the cases in Great Britain, the indication of ECT also was depression. In Scandinavia, ECT use was surveyed in Sweden¹² and in Denmark.¹³ In these countries, 4–9% of the inpatients was treated with ECT mostly with the indication of depression. Nigeria is the only place in Africa where ECT use was surveyed. Odejide reported 27.7–62.5% ECT treatment rate in the hospitalized population.¹⁴ Indication was schizophrenia in 50%, and depression in 32% of the cases. Baudis published data in the Central European region about ECT practice.¹⁵ In Czech Republic, more than 5% of psychiatric inpatients were treated with ECT. The rate of ECT use was consistent during the 8-year period (1981–1989) of investigation. Indication was schizophrenia in 60% and depression in 36% of the cases.

In the last couple of years, new publications concerning ECT use have appeared in the literature. Glen and Scott surveyed ECT use in Edinburgh between 1992 and 1997.⁵ The annual rate of ECT use decreased continuously during the 5-year period, from 3.44 to 1.73 patients per 10,000 population served. In Denmark Andersson and Bolwig surveyed ECT use in 1999.¹⁶ They used questionnaire method and found that

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Methods (2002)

- Semistructured questionnaires containing 13 items
- concerning ECT use in 2002
- were sent to all acute psychiatric departments (n=76)
- by mail or by e-mail

Questionnaire for surveying ECT utilisation rate in 2002

- 1) Do you apply ECT in your department? Yes-no
- 2) How many patients received ECT in 2002?
- 3) How many patients were treated altogether in your department in 2002?
- 4) What was the gender distribution of the ECT treated patients?
Male: Female:
- 5) What were the diagnostic indications of the ECT?(a list of answers was given)
- 6) How many was the mean number of sessions in a treatment course?
- 7) How many was the highest number of sessions in a treatment course?.....
- 8) How many patients were repeatedly treated during the year?
- 9) How frequent are the sessions? 1/week, 2/week, 3/week, 4/week
- 10) Which electrode position do you use for the stimulation?
Bifrontal, Bitemporal, Unilateral
- 11) What kind of machine do you use for ECT?
- 12) What kind of anesthetic do you use for ECT?
- 13) What kind of technique do you use for monitoring the convulsion?
Observation, Cuff method, EEG, EMG

Reevaluation of ECT practice in 2014

ORIGINAL STUDY

Changes in Electroconvulsive Therapy Practice in the Last 12 Years in Hungary

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Background: Electroconvulsive therapy (ECT) was rarely used in Hungary in 2002, and the majority of patients receiving ECT were diagnosed with schizophrenia. This study aimed to explore the use of ECT in Hungary in 2014.

Methods: Two semi-structured questionnaires were sent to all acute adult psychiatric units in Hungary. The first questionnaire contained items concerning ECT use, and the second explored the reasons for not using ECT.

Results: Fifty-eight acute psychiatric inpatient units were identified, and 54 replied. Although 27 indicated that they used ECT, only 22 actually performed ECT in 2014. Thirty-one units did not offer ECT at all. In 2014, 174 patients received ECT in Hungary, constituting 0.59% of all inpatients treated in the departments where it was offered, equating to 0.176 patients/10,000 population. The indication for ECT shifted from schizophrenia in 2002 (55.6%) to mood disorders in 2014 (58.5%), but the absolute number of ECT-treated patients with mood disorders (110 vs 102) did not change. Reasons for not using ECT included the lack of an ECT machine, unavailability of an anesthesiologist, lack of finances, and lack of experienced staff.

Conclusions: In view of the high frequency of depression and suicide in Hungary, it is very likely that a significant minority of patients who would benefit from ECT cannot access it, which constitutes a violation of their right to the best possible treatment. The main reasons for the inadequate ECT service are the underfinanced hospital system and a lack of necessary knowledge.

Key Words: electroconvulsive therapy, Hungary, survey, depression, suicide

(J ECT 2017;30: 00–00)

The use of chemically induced convulsions to relieve psychiatric symptoms was introduced in psychiatry to treat catatonic schizophrenia.¹ Shortly thereafter, convulsive therapy, mostly in the form of electroconvulsive therapy (ECT), was also used for the treatment of affective disorders.²

It is generally accepted that ECT is the most efficacious treatment for major depression,³ and major depression is the main indication for ECT in most treatment guidelines.^{4,5}

According to a nationwide survey, ECT was used relatively rarely in Hungary in 2002 and the majority of patients who received it were diagnosed with schizophrenia, similar to other countries in Central and Eastern Europe, including Estonia, Lithuania, Czech Republic, and Croatia.^{6–9}

The aim of this study was to explore the use of ECT in Hungary in 2014 and compare the results to those of the previous survey conducted in 2002.⁶

METHODS

Two semi-structured questionnaires were sent to all acute adult psychiatric units in Hungary. In most cases, the chief of service completed the questionnaires, but in a few cases, the task was delegated to the head of the ECT unit.

In Hungary, ECT, including maintenance ECT, is performed only in inpatient settings in acute psychiatric units. Rehabilitation, psychotherapy, addiction, geriatric, and child-adolescent psychiatric units were not approached because they do not perform ECT.

The first questionnaire (Appendix 1, <http://links.lww.com/JECT/A59>) contained 25 items concerning ECT use in Hungary in 2014. The second, 9-item questionnaire (Appendix 2, <http://links.lww.com/JECT/A60>), was compiled for the units and departments where ECT was not offered to explore the reasons for not using ECT.

The questionnaires were sent by e-mail. Nonresponding units received a second set 8 weeks later. After 4 more weeks, the principal author (M.A.) phoned the Chiefs of Service of the nonreplying units to collect missing data.

The study protocol was approved by the Ethics Committee of the Semmelweis University Medical School, Budapest.

Description of Data

The data are given as means and standard deviations or percentages as appropriate.

RESULTS

Methods (2014)

- Semistructured questionnaires containing +12 new items
- concerning ECT use in 2014,
- and a second questionnaire for those departments where ECT is not practiced to explore the reason for that,
- were sent to all acute psychiatric departments (n=58)
- by mail or by e-mail

Questionnaire for surveying ECT utilisation rate in 2014

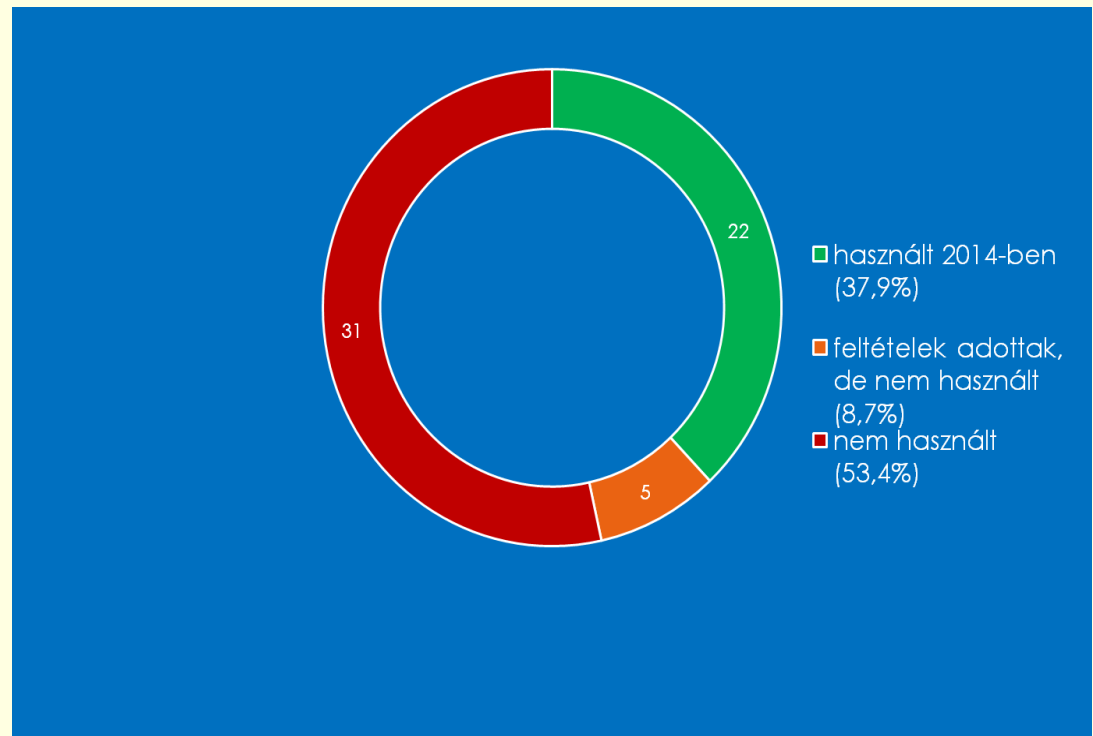
- 1) Do you apply ECT in your unit/hospital/department? Yes/No
(if answer is NO, please continue with the **second questionnaire**)
- 2) How many patients received ECT in 2014?
- 3) How many patients were treated altogether in your unit/hospital/department in 2014?
- 4) What was the gender distribution of the ECT treated patients? Male: Female:
- 5) What were the diagnostic indications of the ECT (list was given)?
- 6) Do you apply ECT in patients
 below the age of 18? Yes/No
 above the age of 70? Yes/No
 in pregnancy? Yes/No
- 7) How many is the mean number of sessions in a treatment course?
- 8) How many was the highest number of sessions in a treatment course?
- 9) How many patients have received repeated treatment course in 2014?
- 10) How frequent were the sessions? 1/week, 2/week, 3/week, 4/week
- 11) Do you perform maintenance ECT in your unit/hospital/department? Yes/no
- 12) How many patients received maintenance ECT in your unit/hospital/department in 2014?
- 13) Which electrode position do you use for the stimulation? Bifrontal, Bitemporal, Frontotemporal, Unilateral
- 14) What kind of machine do you use for ECT?
- 15) What kind of anaesthetic do you use for ECT?
- 16) What kind of technique do you use for monitoring the convulsion? Observation, Cuff method, EEG, EMG, None
- 17) What is the seizure duration level which is accepted to be effective in your unit/hospital/department? EEG: observed:
- 18) Do you measure seizure threshold before starting ECT treatment? Yes/No/Sometimes
- 19) What kind of method do you use to determine the intensity of the initial stimulation? Age method, Half-age method, Titration method, Other regulation, Fixed intensity, Other:
- 20) What kind of medical consultations/examinations do you perform before starting ECT? (a list of answers is given)
- 21) What were the most common contraindications of the treatment? (a list of answers is given)
- 22) Do you find useful the ECT protocol, which was released in 2005? Yes/No
- 23) Is there anything missing from the protocol?

Results 2014:

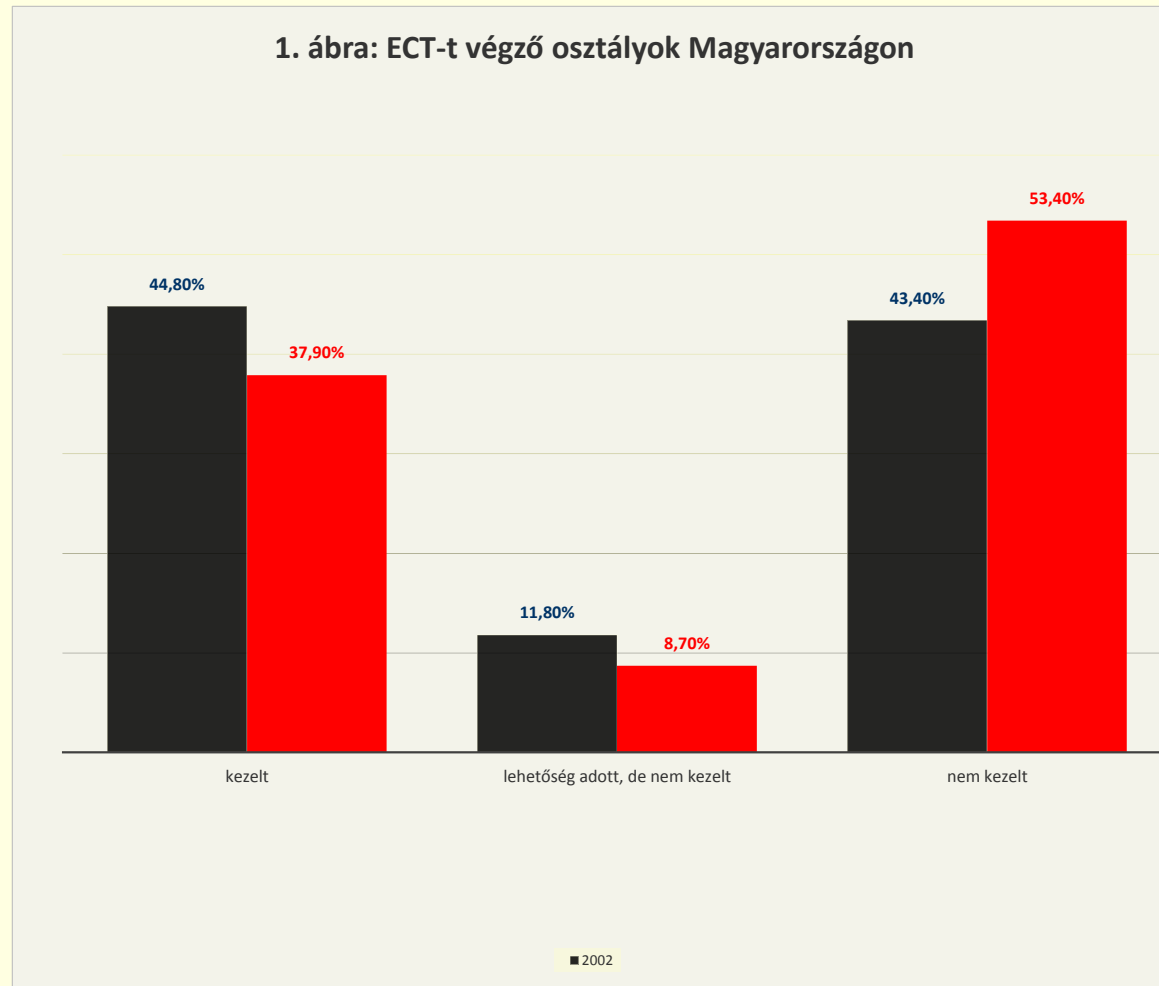
- Response rate: 54 units out of 58 (93%)

- ECT use in 2014:

-Mean number of
ECT treated patients/unit:
7.9 (1-52)



Distribution of the psychiatric units regarding ECT use.



Data form the survey in
2002

- Altogether 174 patients were treated with ECT in 2014 in Hungary.

-315 ECT treated patients

- Mean rate of ECT treated inpatients was 0.59% in those departments where ECT was performed (max. 2.55%).

-0.6 % (max 2.6%)

- It is 0.176 patients/10.000 population.

-0.31 patients/10.000
population

- Sixty-six percent of the ECT treated patients were female.

-59% female

Another recently published nationwide survey: from the Czech Republic (2018 Jun)

Electroconvulsive Therapy in the Czech Republic

Kalisova, Lucie, MD, PhD; Madlova, Katerina, MD; Albrecht, Jakub, MD; Michalec, Jiri, MA; Kubinova, Marketa, MA; Raboch, Jiri, MD, DrSc

The Journal of ECT, June 2018 - Volume 34 - Issue 2 - p 108-112
doi: 10.1097/YCT.0000000000000466
Original Studies

BUY SDG

Abstract

Author Information

Objectives Electroconvulsive therapy (ECT) is effective in the treatment of severe psychiatric disorders. Electroconvulsive therapy is applied to almost 1 million patients every year around the world. The aim of this study was to monitor the use of ECT in psychiatric facilities for adults in the Czech Republic (CR) in 2014 and to describe the national practice.

Methods A 14-item questionnaire was sent to all Czech inpatient psychiatric facilities that provide ECT, with the aim of getting a detailed picture of the use of ECT in the CR. The questionnaire assessed the technical background for using ECT in each center, along with indications for the treatment, the procedure, and the manner of documenting and monitoring adverse effects. The data obtained were supplemented with information about national legal and ethical regulations as well as historical background.

Results Electroconvulsive therapy is used in 26 centers across the CR. More than 1000 patients were treated with ECT in 2014. All centers use instruments delivering brief pulse stimuli, monitoring electroencephalogram and electrocardiogram. All patients have to be indicated for this treatment, which is a decision the patient's psychiatrist makes. All patients have to sign an informed consent form, excluding a situation where the patient's life is endangered. Somatic state is assessed in all patients. Bitemporal electrode placement is the preferred option in all centers.

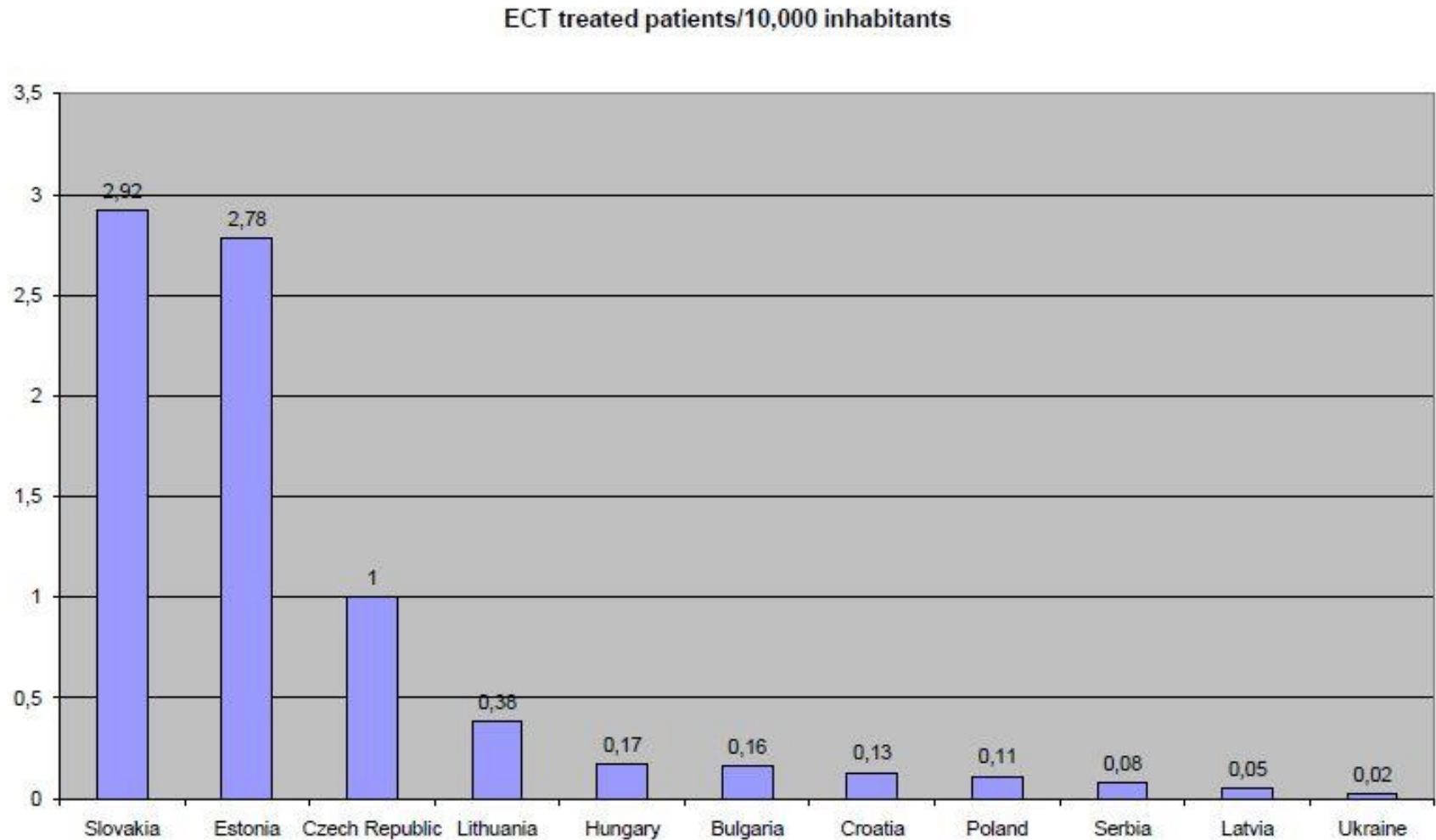
Conclusions This article covers detailed information about the use of ECT in the CR. The results will be used to harmonize national practice and reduce the stigma associated with this method in the CR.



Central-Eastern-European countries with nationwide ECT use surveys

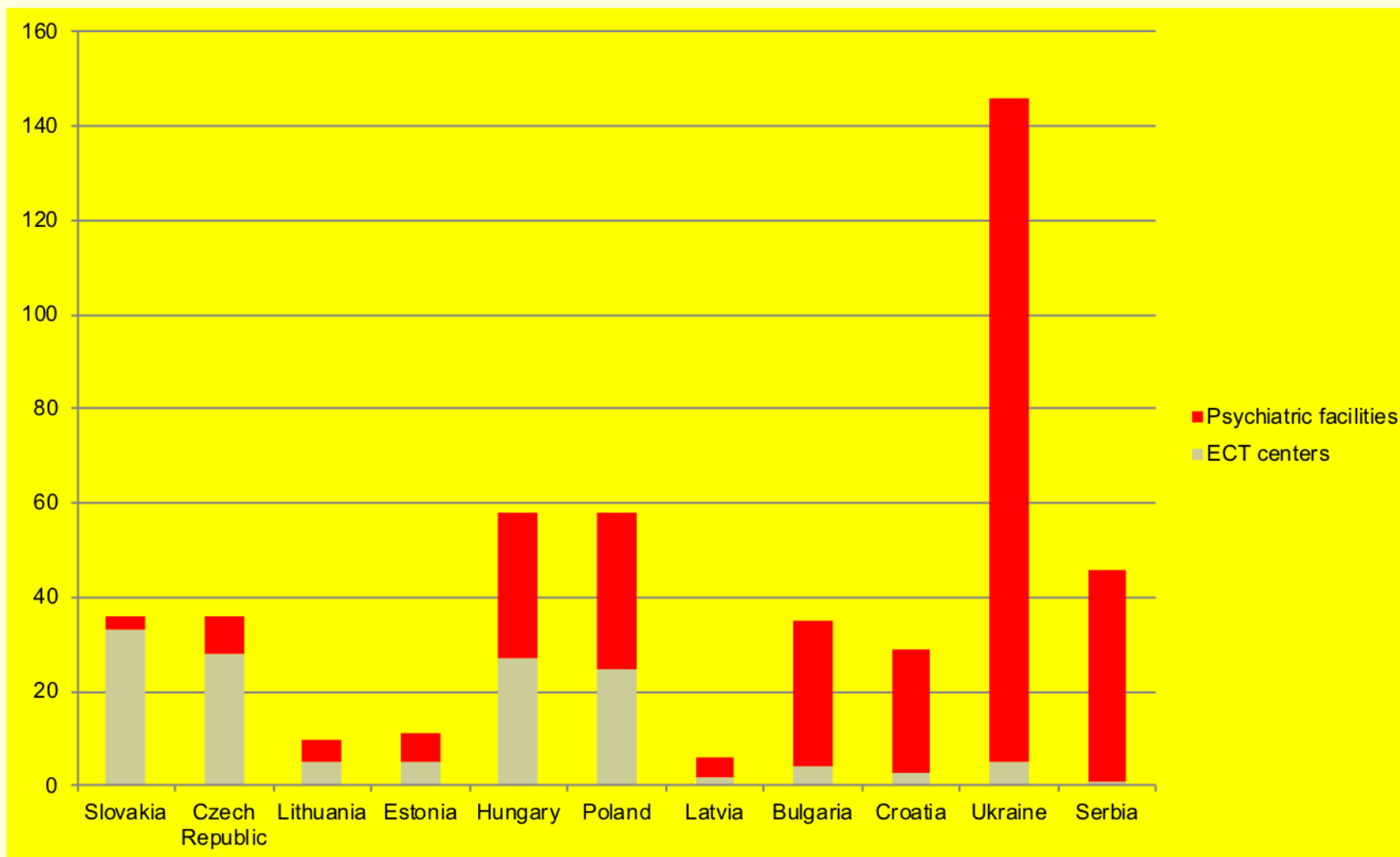


Results of nationwide surveys



Results of nationwide surveys

- rate of ECT offering facilities



Summary of ECT use data

	Rate of ECT treated patients	Rate of ECT centers	comment
Slovakia(2008-10)	High – 2.92	High - 90%	
Estonia(2010)	High – 2.78	Medium – 45%	Centralized (smallest country)
Czech Republic(2014)	Medium – 1.00	High – 78%	Decentralized
Lithuania(2010)	Medium - 0.38	Medium – 50%	
Hungary(2014)	Low – 0.17	Medium – 46%	Decentralized (lack of the necessary experience)
Bulgaria(2010)	Low – 0.16	Low – 12%	
Croatia(2012-13)	Low – 0.13	Low – 10%	
Poland(2005)	Low – 0.11	Medium – 43%	Decentralized
Serbia(2012)	Very low – 0.08	Very low – 2%	Limited access
Latvia(2010)	Low – 0.05	Medium – 33%	Decentralized
Ukraine(2011)	Very low – 0.02	Very low – 5%	Limited access

Results of the nationwide surveys – diagnostic distribution of treated patients

	Main diagnostic indication
Slovakia(2008-10)	affective disorders 64.1%
Estonia(2010)	schizophrenia: 48%
Czech Republic(2014)	depression
Lithuania(2010)	schizophrenia: 86%
Hungary(2014)	affective disorders: 58.5%
Bulgaria(2010)	depression
Croatia(2012-13)	schizophrenia: 63%
Poland(2005)	depression
Serbia(2012)	depression 67%
Latvia(2010)	catatonia
Ukraine(2011)	affective disorders 71%

Survey of ECT referrals in Hungary

The World Journal of Biological Psychiatry, 2009; 10(4): 900–904



ORIGINAL INVESTIGATION

Survey of referrals to electroconvulsive therapy in Hungary

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Abstract

Background. The diagnostic distribution of patients treated with electroconvulsive therapy (ECT) in Hungary is significantly different from that in Western Europe or the USA. In Hungary most of the treated patients are diagnosed with schizophrenia. **Aim.** To analyze the practice of referring patients for ECT in Hungary. **Methods.** Questionnaires containing socio-demographic data were mailed to all Hungarian psychiatric units where ECT was used ($n=34$), and all of the psychiatrists working there were invited to participate. Respondents were asked to rate how often they considered ECT for various symptoms/syndromes on a five-point Likert Scale. **Results.** A total of 78 questionnaires were returned. Altogether, 89% of the respondents have referred patients to ECT, and 54.8% had done so in the last year. The respondents had most frequently recommended ECT for antipsychotic and antidepressant-resistant patients, catatonic symptoms, or patients with previous good treatment response to ECT. **Conclusion.** Considering the very high Hungarian suicide rate, the low referral rate in cases of severe suicidal intent and threat is surprising. The respondents also rarely considered ECT for NMS or severe depression. The discrepancy between current referral practices and standard recommendations could be decreased with more ECT training courses.

Key words: ECT, schizophrenia, depression, biological treatment, referral

Indications of ECT according to position

Table III. Statically significant differences in answers regarding indications of ECT according to the respondents' position.

Question	Resident	Specialist	Chief of Service	K-W test
Therapy-resistant depressive symptoms lasting over 6 months	2.57 ± 1.281	3.65 ± 1.268	2.29 ± 0.951	$P=0.006$
NMS during antipsychotic therapy	2.90 ± 1.353	3.70 ± 0.865	2.71 ± 1.380	$P=0.04$
Self-depreciating delusions	1.53 ± 0.647	2.00 ± 0.918	3.14 ± 1.215	$P=0.05$
Psychosis characterized by gross disorganization	2.41 ± 0.880	2.80 ± 1.056	3.57 ± 1.134	$P=0.035$

Results of the nationwide surveys – ECT machines

	Brief pulse/sine wave
Slovakia(2008-10)	17/16
Estonia(2010)	5/0
Czech Republic(2014)	28/0
Lithuania(2010)	2/2
Hungary(2014)	23/4
Bulgaria(2010)	3/1
Croatia(2012-13)	3/0
Poland(2005)	12/5
Serbia(2012)	1/0
Latvia(2010)	0/2
Ukraine(2011)	3/5

Results of the nationwide surveys – electrode positions

Slovakia(2008-10)	Bitemporal/bifrontal/unilateral
Estonia(2010)	Bitemporal/bifrontal/unilateral
Czech Republic(2014)	Bitemporal
Lithuania(2010)	Bitemporal
Hungary(2014)	Bitemporal/bifrontal/unilateral
Bulgaria(2010)	Bifrontal/bitemporal/unilateral
Croatia(2012-13)	Bifrontal
Poland(2005)	Bitemporal
Serbia(2012)	Bifrontal
Latvia(2010)	Bitemporal
Ukraine(2011)	Bitemporal

Results of the nationwide surveys – maintenance ECT

Slovakia(2008-10)	13 settings (39%)
Estonia(2010)	4 settings (80%)
Czech Republic(2014)	3 settings (11%)
Lithuania(2010)	No
Hungary(2014)	2 settings (8%)
Bulgaria(2010)	1 setting (25%)
Croatia(2012-13)	No
Poland(2005)	5 settings (20%)
Serbia(2012)	1 setting (100%)
Latvia(2010)	No
Ukraine(2011)	2 settings (25%)

Legal requirements for ECT (EU countries)

Gazdag et al.: The Practice of Consenting to Electroconvulsive Therapy in the European Union. J ECT 2012

TABLE 1. Main Aspects of Consent to ECT in Europe

Country	Written Consent Is Mandatory	Consent Before Each Treatment Session	Separate Consent for Anesthesia	Separate Consent for Bilateral ECT	Written Consent for M-ECT	Separate Consent for Each M-ECT Session	Relative Can Give Consent for the Incapacitated Patient	National Protocol Available
Austria	X	—	X	—	—	—	—	X
Belgium	X	—	—	—	X	—	X	X
Bulgaria	X	—	—	—	X	—	X	X
Czech Republic	X	—	—	—	X	X	X	X
Denmark	—	—	—	—	—	—	X	—
Estonia	X	—	—	— (no unilateral)	— (no M-ECT)	—	—	—
Finland	—	—	—	—	—	—	X	—
France	X	—	—	—	—	—	—	X
Germany	X	—	X	X	X	—	—	X
Greece	X	—	X	—	—	—	X	X
Hungary	X	—	—	—	X	X	X	X
Ireland	X (valid for 12 sessions)	X	—	—	X (valid for 6 months)	X	—	X
Italy	X	X	—	—	X	X	X	X
Latvia	X	X	—	—	X	X	X	X
Lithuania	X	—	—	—	— (no M-ECT)	—	X	—
Netherlands	X	—	—	—	—	—	X	X
Norway	X	—	—	—	—	—	X	—
Poland	X	—	—	—	X	X	—	(in progress)
Portugal	X (valid for 15 sessions)	—	—	—	X (valid for 6 months)	—	X	—
Romania	X	—	—	—	— (no M-ECT)	—	X	—
Slovakia	—	—	X	—	—	—	X	(in progress)
Spain	X	—	X	—	X (valid for 6 months)	—	X	X
Sweden	—	—	—	—	—	—	X	—
Switzerland	X	—	X	—	X (valid for 6 months)	X	X	—
UK	X (12 recommended as standard)	—	—	—	X	X	—	X

X indicates yes.

Tendencies, characteristics

- Hungary – decreasing
 - 1992: 1605 patients
 - 2002: 315 (19.6%)
 - 2014: 174 (55%)

- Poland (2005)
 - ?

- Slovakia
 - Steady state – high
 - 2008: 2.92/10,000
 - 2009: 2.84/10,000
 - 2010: 2.89/10,000

- Bulgaria – decreasing
 - 1977: 800 patients
 - 1982: 1200 patients
 - 2010: 115 patients

Tendencies, characteristics

- Ukraine

- ?
- Cause for concern:
unmodified ECT in 3
settings

- Estonia

- ?

- Latvia

- National protocol
- Utilization tends to 0

- Lithuania (2010)

- Low utilization in affective patients
- Highest suicide rate in the world

ECT Training, education

- Lack of centrally organized ECT training or courses are shared characteristic of the countries in the region.
- Teaching ECT is not part of the regular medical curricula, except Croatia and Ukraine, while it is commonly part of the residency training in the countries of the region, practical experience not everywhere required.
- A more frequently used way of distributing ECT knowledge is organizing CME courses (e.g. in Hungary and Serbia).
- In a significant number of countries (e.g. in Bulgaria, Hungary, Poland, Serbia, Ukraine) ECT textbooks or ECT chapters in monographs were published in the last decades in local languages.

Obstacles for practicing ECT

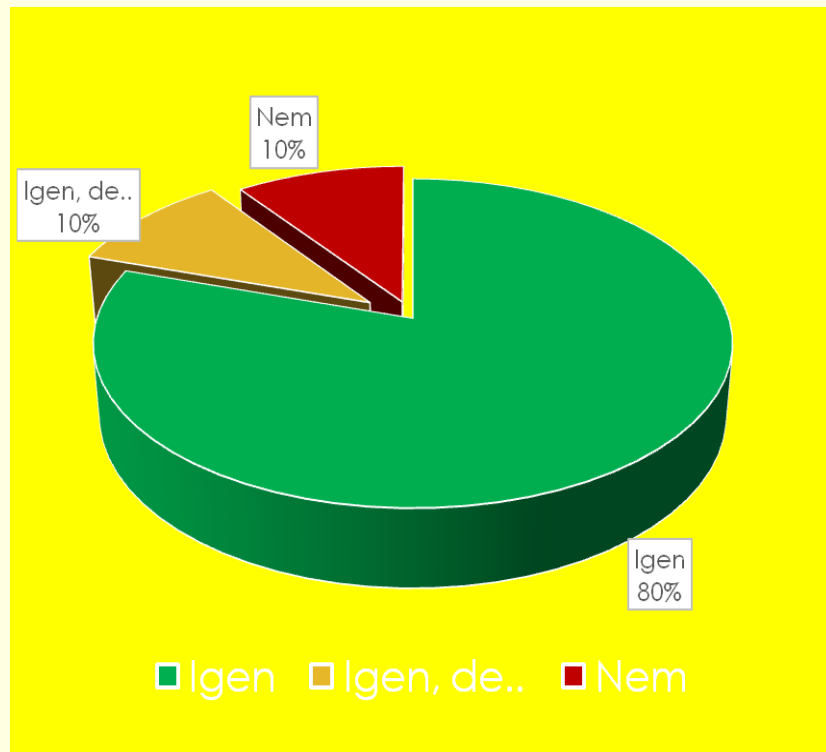
2nd questionnaire (for those units where ECT is not practiced)

Please list the reasons for not performing ECT in your unit/hospital/department.

- - We do not consider ECT as an effective treatment. Yes/No
- - No patients requiring ECT were treated in the unit/hospital/department. Yes/No
- The patients requiring ECT were referred to unit/hospital/department performing ECT. Yes/No
- If the answer to the previous question is yes, how many patients were referred to other units/hospitals/departments in 2014?
- The department does not have the conditions necessary for the performance of ECT (multiple answers can be given to the following questions)
 - - There is no ECT machine. Yes / No
 - - Anaesthesiologist is not available for the ECT. Available - Not available
 - - There is no specialist with experience to perform ECT in the unit/hospital/department. Yes/No
 - - Financing of ECT treatment is not provided or is not insured. Yes/No
- - If there are no obstacles, would you apply the ECT treatment in the unit/hospital/department? Yes/No

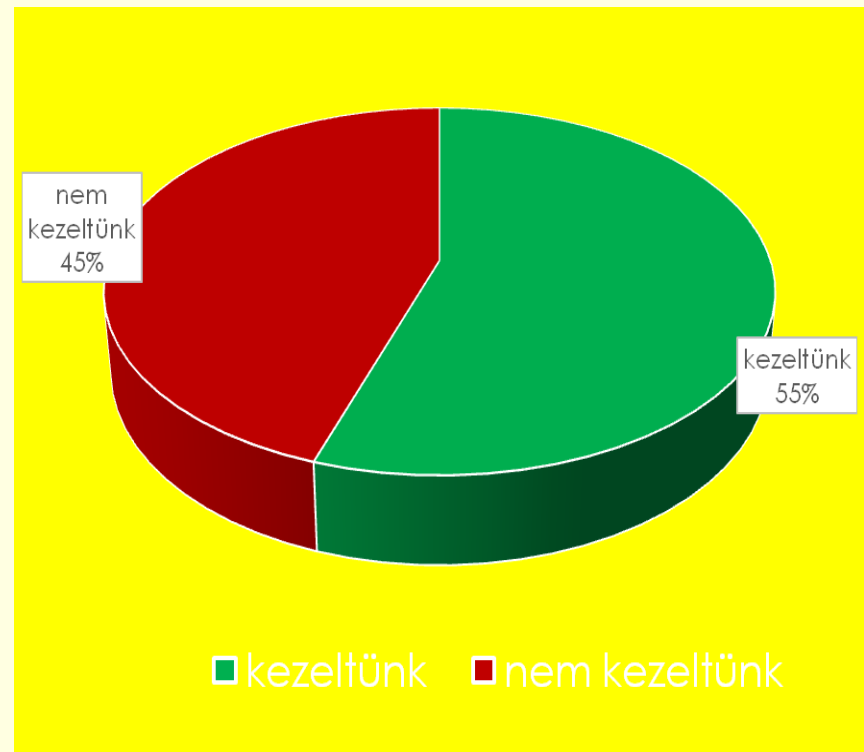
2nd questionnaire (for those units where ECT is not practiced)

- ▶ Do you consider ECT as an effective treatment?



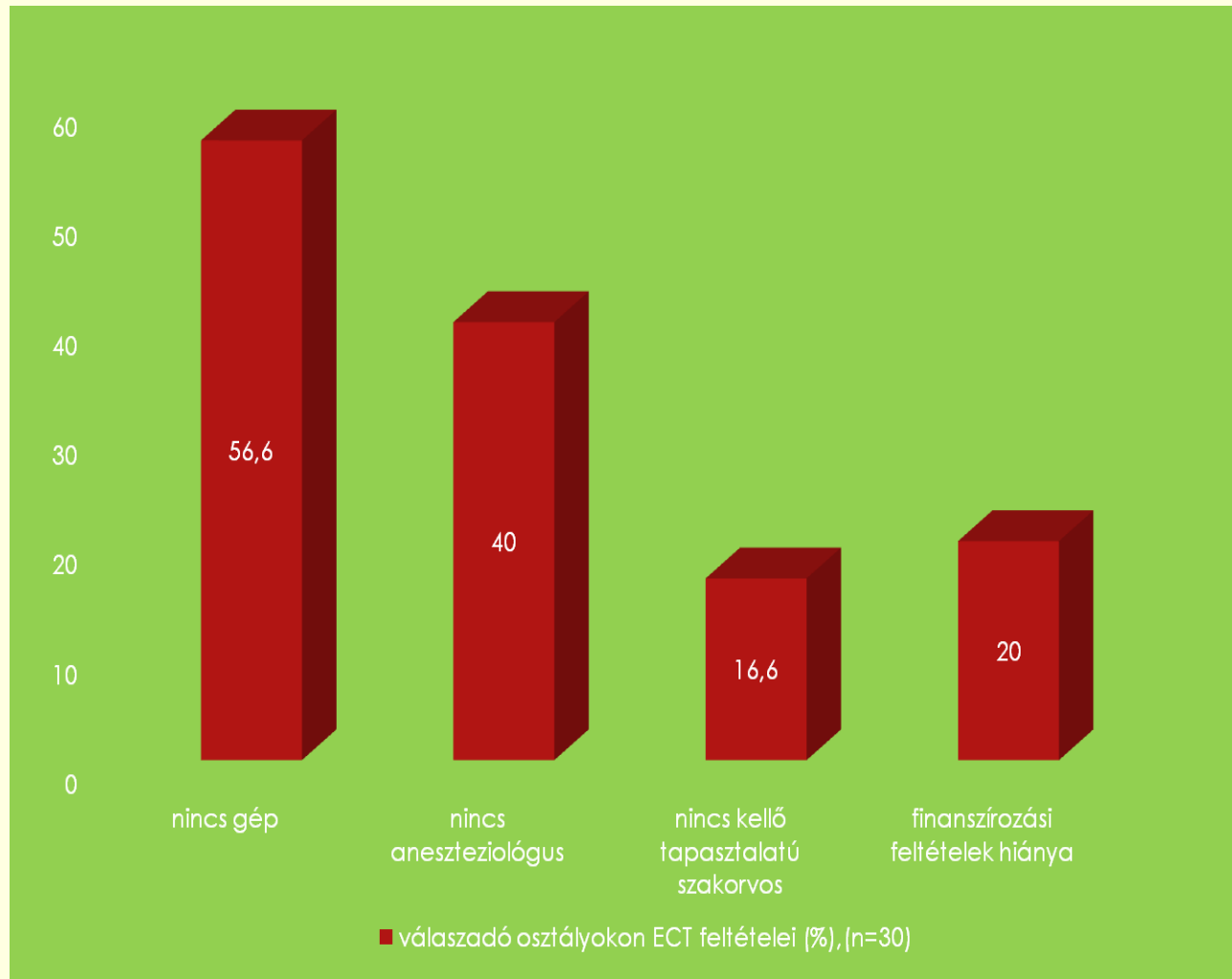
Yes, but it is outmoded, having serious side effects and should be practiced only as a last resort.

- Have you been treated patients requiring ECT in the department?

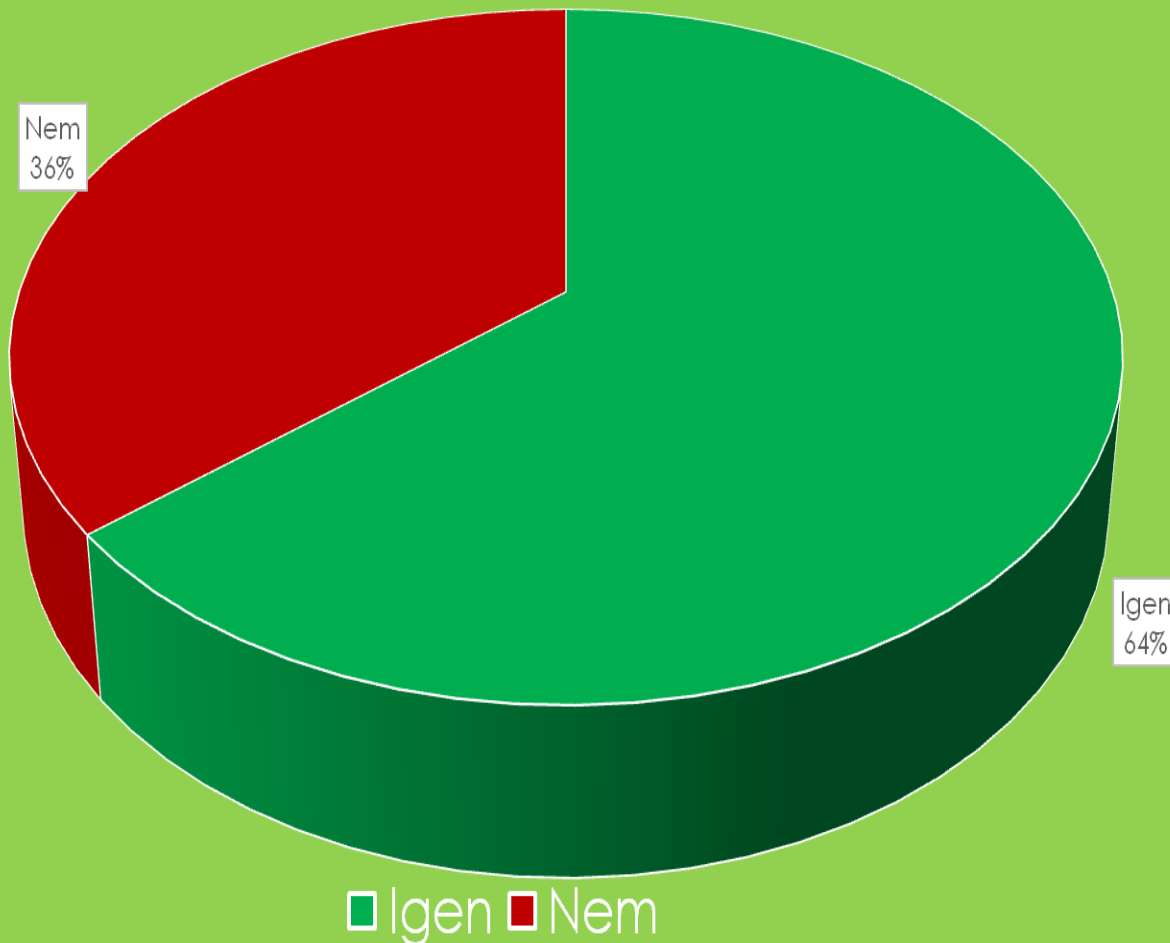


16 units have treated (but only 12 referred patients to an ECT center), 12 have not treated

Obstacles for practicing ECT



If there are no obstacles, would you apply the ECT treatment in the unit/hospital/department? (9 No)



Reasons:
The team considered it as outmoded and obsolete treatment.
There is not enough patient to get sufficient experience.

Professional attitudes (J ECT; 2004)

ORIGINAL ARTICLE

Attitudes Towards Electroconvulsive Therapy Among Hungarian Psychiatrists

Gábor Gazdag, MD, MSc, Nárcisz Kocsis,† Judit Tolna, MD, PhD,‡ and
Attila Lipcsey, MD, PhD, Med Habil§*

Abstract: Participants of a postgraduate biologic psychiatric course were surveyed about their attitudes toward electroconvulsive therapy (ECT) with a self-administered questionnaire. Among the respondents, 65 persons were specialists in psychiatry, 32% of whom would not consider using ECT even if they were in a psychotic depressive state. According to the bias factor, which has been calculated based on the answers to the 11 questions regarding attitudes, those psychiatrists who worked in inpatient care showed a less negative attitude. Among the items concerning knowledge of ECT, incorrect answers were most frequent to questions about myocardial infarction as a contraindication, and about the identity of the person who had pioneered this treatment. The negative attitude of Hungarian psychiatrists, especially of those who work in outpatient care, may have an important role in the decrease of the application of ECT in the past decade in Hungary.

Key Words: attitude, electroconvulsive therapy, psychiatrists, Hungary

(J ECT 2004;20:204–207)

The aim of the study was to survey the attitude and knowledge toward ECT of Hungarian psychiatrists, who have the most direct influence on its utilization in the country.

METHODS

Questionnaire

Our self-administered questionnaire, consisting of 35 questions (Appendix), was composed on the basis of 2 previous attitude studies.^{6,9} The 8 questions concerning attitudes were derived from the Clothier's study⁶ and the 5 questions concerning knowledge, from Chanpattana's work⁹ with the permission of the authors. Besides demographic data, specialization, place of work, and self-assessment of ECT knowledge were questioned in a multiple-choice format. The remaining 28 questions were simple true/false choices. First, there were 5 questions related to previous ECT experiences in professional life, as well as in private life, among family members, and

Main findings:

- Poor factual knowledge, a number of misconceptions.
- 34% of the respondents thought that ECT is dangerous and could be fatal.
- 54% believed that ECT should only be used as a last resort.
- Thirty-two percent of the psychiatrists would not consider applying ECT for themselves even if they were in a psychotic depressive condition.
- The survey has been conducted among psychiatrists who are interested in biologic psychiatry,
 - 94% of the respondents administered ECT,
 - and 88% of the respondents referred patients to ECT.

Medical students' attitudes (J ECT; 2005)

ORIGINAL ARTICLE

Hungarian Medical Students' Knowledge About and Attitudes Toward Electroconvulsive Therapy

Gábor Gazdag, MD, MS,* Nárcisz Kocsis-Ficzere,† and Judit Tolna, MD, PhD‡

Abstract: A survey using self-administered questionnaires was conducted among fifth-year medical students beginning their psychiatry clerkships to assess their attitude toward and their basic knowledge of electroconvulsive therapy (ECT). The questionnaire, consisting of 28 questions, was completed by 127 students. Ten rated their own knowledge on ECT as mediocre, the rest of them as minimal. A total of 67% of the students would not consent to undergoing ECT themselves, not even if they had severe depression with psychotic features. ECT was believed to be used to bring violent patients under control by 35% of the students, was believed to be painful by 54%, and to be even dangerous by 50%. A total of 61% of the participants believed that ECT should only be used as a last resort, 35% found ECT outdated, 32% thought that ECT causes permanent brain damage, and 14% would ban its use. Among the students refusing to be treated with ECT, the proportion of women was higher, and their attitude toward ECT was significantly more negative ($P = 0.031$) than that of those who would consent to ECT. The answers that psychiatrists often misuse ECT, that ECT is an outdated therapy causing brain damage, and that the use of which should be forbidden were given more frequently by those who refused to be treated with ECT. Also, the attitude of those describing themselves as more knowledgeable about psychiatry was found to be significantly ($P = 0.005$) more negative than the attitude of those with minimal psychiatric knowledge. The frequent occurrence of incorrect beliefs about and negative attitudes toward ECT support the necessity of covering ECT in the medical school curriculum more thoroughly and in more detail.

Key Words: attitude, electroconvulsive therapy, medical students, Hungary

(J ECT 2005;21:96-99)

Therefore it is important that medical students should be well informed about ECT.

In Hungary, adequate training in ECT is included neither in the standard medical curriculum nor in the training syllabus of psychiatry residents. At the same time, misleading information about ECT is broadcast on the media to the public and to medical professionals.⁸ Besides the appearance of ever more efficient psychopharmacological treatments, the negative public and professional perception of ECT⁹ is likely to have played an important role in that its use in Hungary has been in the last few years markedly pushed into the background.¹⁰ The aim of this survey was to assess medical students' present attitude toward and knowledge about ECT, with the view of establishing a program for an extended education for the curricula of medical schools.

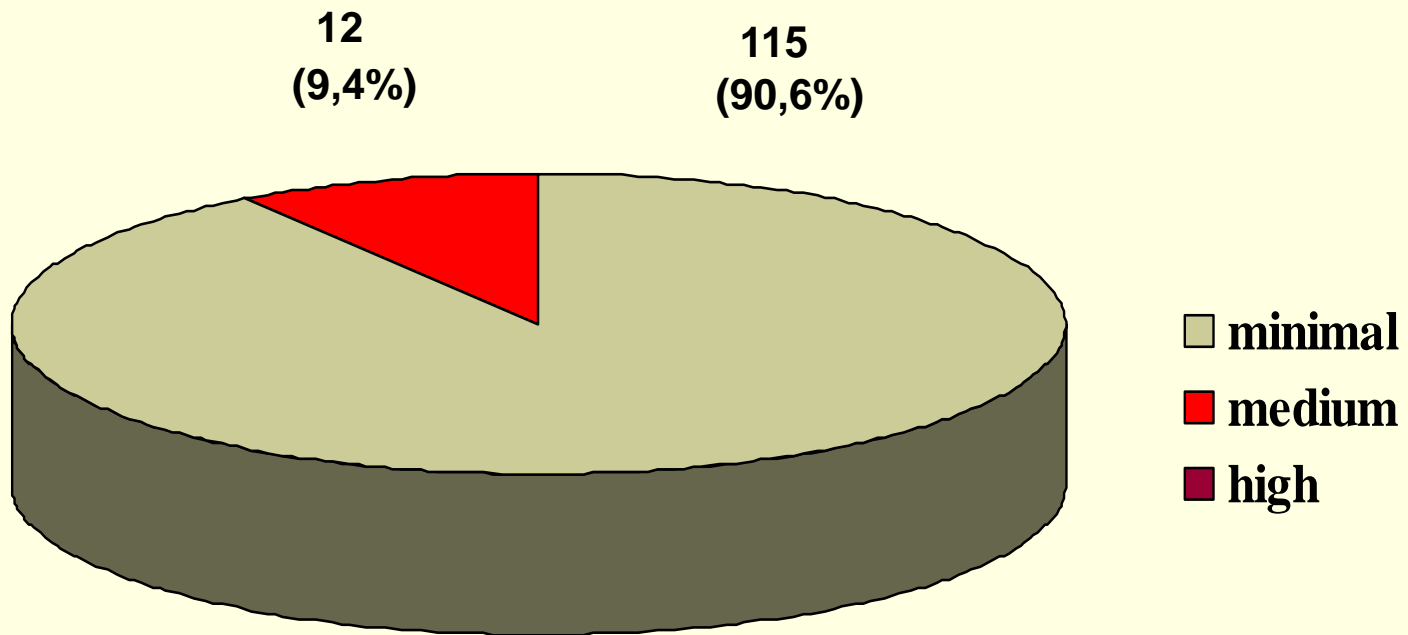
METHOD

The Questionnaire

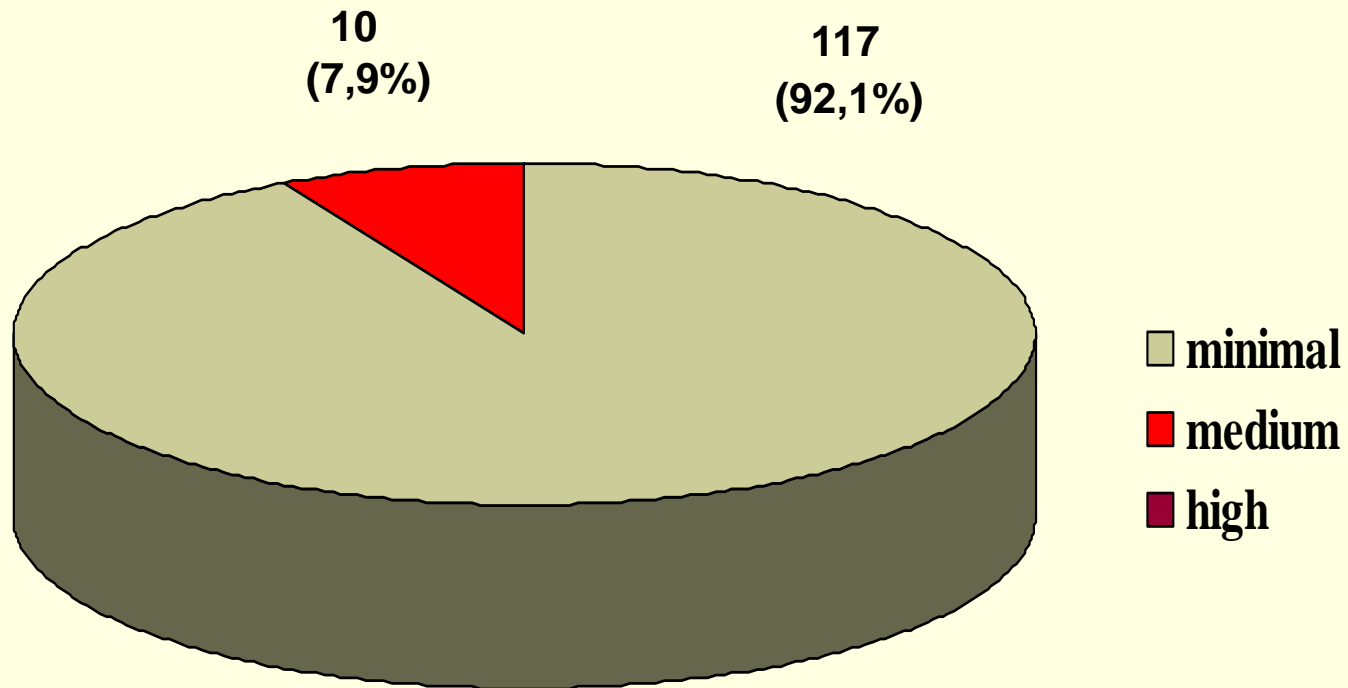
On the basis of previous studies into the attitude toward ECT,^{11,12} a self-administered 28-item questionnaire was composed. In addition to sex and age, the participants were asked in multiple-choice format to rate their own knowledge of ECT, psychiatry, and general medicine, and they were also asked how likely they were to choose psychiatry as their profession. The next 22 questions were simple yes/no choices. Two questions concerned the occurrence of psychiatric illnesses or the use of ECT among friends or family members. It was then asked whether the respondent, in case of severe depression with psychotic features, would consent to being treated with ECT. The next 19 questions inquired about the respondents'

- 28 item self-administered questionnaire
- Demographic data
- Self-rating their own knowledge of ECT and psychiatry
- 9 factual knowledge questions
- 14 attitude questions

Self-rated knowledge of psychiatry



Self-rated knowledge of ECT



Answers to attitude questions

	Self-rated minimal knowledge in psychiatry		Self-rated medium knowledge in psychiatry		statistics
	agree	Does not agree	agree	Does not agree	significance
ECT is painful	58	55	10	2	P=0,064
ECT causes brain damage	33	78	8	4	P=0,020
Should be illegal to perform	13	98	4	7	P=0,047
Used more frequently in Hungary than in the USA	26	88	6	4	P=0,018
Was discovered by a Hungarian psychiatrist	67	42	2	6	P=0,062

Results

- Those 12 students who rate their knowledge of psychiatry greater:
 - Rated their ECT knowledge higher
 - Showed significantly more negative attitude towards ECT and had less factual knowledge
 - More frequently wanted to specialize in psychiatry

Impact on attitudes of watching live ECT

Brief Report

Impact on Psychiatric Interns of Watching Live Electroconvulsive Treatment

Gabor Gazdag, M.D., Ph.D., Gábor Sebestyén, M.D.
Gabor S. Ungvari, M.D., Ph.D., Judit Tolna, M.D., Ph.D.

Objective: Watching a live electroconvulsive treatment (ECT) has both positive and negative effects on spectators. The authors aim to survey the attitude change towards ECT in interns after watching a live ECT session.

Methods: A 23-item questionnaire was administered to 66 interns before and after watching ECT.

Results: In five statements, the number of answers indicating negative attitudes decreased significantly after viewing ECT. A general change in attitude towards ECT depended on the interns' knowledge about the treatment. In the group of interns claiming minimal knowledge about ECT, a positive attitude change toward ECT and an increase in the acceptance of ECT were found, while in the group with moderate self-rated knowledge no significant attitude change, but a decrease in acceptance, were detected.

Conclusion: The visual information on ECT reduced the interns' negative attitudes, in general; however, acceptance of the treatment decreased in a subgroup of interns.

Academic Psychiatry 2009; 33:152-156

The use of electroconvulsive treatment (ECT) in Hungary has been significantly reduced over the past decade (1). Attitude studies of both medical students (2) and psychiatrists (3) in Hungary showed frequent, groundless beliefs regarding the method.

Earlier studies suggested that viewing the treatment itself plays an important role in forming attitudes toward ECT. A negative impact on attitudes generated by viewing clips from movies portraying ECT as a brutal and inhumane method has been proven (4). A positive impact on knowledge and attitudes of educational videos (5, 6) and live ECT demonstrations integrated into the medical curriculum (7) has also been demonstrated. A study that compared the effect of educational videos and live ECT demonstration (8) indicated a minimally higher level of knowledge after seeing live ECT. Educational pamphlets and an educational video were equally effective in influencing knowledge and attitudes toward ECT in nonmedical university students (5). These results suggest that visual information (i.e., viewing a live treatment) could play a role in increasing knowledge of, and changing attitudes toward, ECT.

The aim of this study was to survey the attitude change in interns (students in their sixth year of medical school in Hungary) after they watched a live ECT session for the first time.

- Self-rated attitude questionnaire before and after watching ECT
- Self-rating their ECT knowledge was also asked

Results

TABLE 1. Comparison of Participants' Pre-ECT and Post-ECT Answers Concerning Their Attitude toward ECT

Statements on ECT	Pre-ECT Answers					Post-ECT Answers					Marginal homogeneity test
	1	2	3	4	Mean score	1	2	3	4	Mean score	
1. Often misused	36	27	3	0	1.50	44	22	0	0	1.33	p=0.012*
2. Used to control violent patients	34	17	11	2	1.70	43	12	9	1	1.52	p=0.007*
3. Used to punish uncooperative patients	63	3	0	0	1.05	64	2	0	0	1.03	p=0.564
4. Painful	32	25	6	2	1.66	41	23	1	0	1.38	p=0.002*
5. Can be performed without anesthesia in Hungary	61	4	1	0	1.09	62	2	2	0	1.12	p=0.670
6. Dangerous, and may be fatal	15	36	9	5	2.06	18	40	4	4	1.92	p=0.039*
7. Should only be used as a final resort	16	25	17	7	2.23	18	21	19	7	2.23	p=0.674
8. Outmoded	30	27	9	0	1.68	33	25	7	0	1.60	p=0.317
9. Causes permanent brain damage	32	30	3	1	1.60	30	31	3	1	1.62	p=0.819
10. Violates patients' rights	51	10	2	0	1.23	51	14	0	0	1.21	P=0.513
11. Used more often in Hungary than in the U.S.	19	34	10	1	1.89	25	30	6	3	1.79	p=0.095
12. Must not be used over age 65	13	34	11	3	2.08	24	28	10	2	1.87	p=0.008*
13. Can be performed against the patient's will	30	18	12	5	1.88	28	14	13	10	2.08	p=0.144
14. Viewing it is frightening	12	25	22	6	2.34	19	25	17	5	2.14	p=0.107

1 = absolutely disagree; 4 = absolutely agree. Significant differences are indicated with asterisks.

Results – self-rated ECT knowledge

TABLE 2. Significant Changes in Pre-ECT and Post-ECT Answers in the Group with Minimal Self-Rated ECT Knowledge

Statements on ECT	Pre-ECT answers					Post-ECT answers					Marginal homogeneity test
	1	2	3	4	Mean	1	2	3	4	Mean	
1. Is often misused	19	18	0	0	1.49	27	10	0	0	1.27	p = 0.005
2. Is used to control violent patients	21	8	6	0	1.57	28	5	3	0	1.31	p = 0.013
4. Is painful	19	12	4	2	1.70	26	11	0	0	1.30	p = 0.007

The numbers indicate row data and the mean of the coded scores.

TABLE 3. Significant Changes in Pre-ECT and Post-ECT Answers in the Group with Moderate Self-Rated ECT Knowledge

Statements on ECT	Pre-ECT answers					Post-ECT answers					Marginal homogeneity test
	1	2	3	4	Mean	1	2	3	4	mean	
Would consent to receive ECT in case of severe depression	2	4	8	7	2.95	2	7	6	6	2.76	p = 0.046

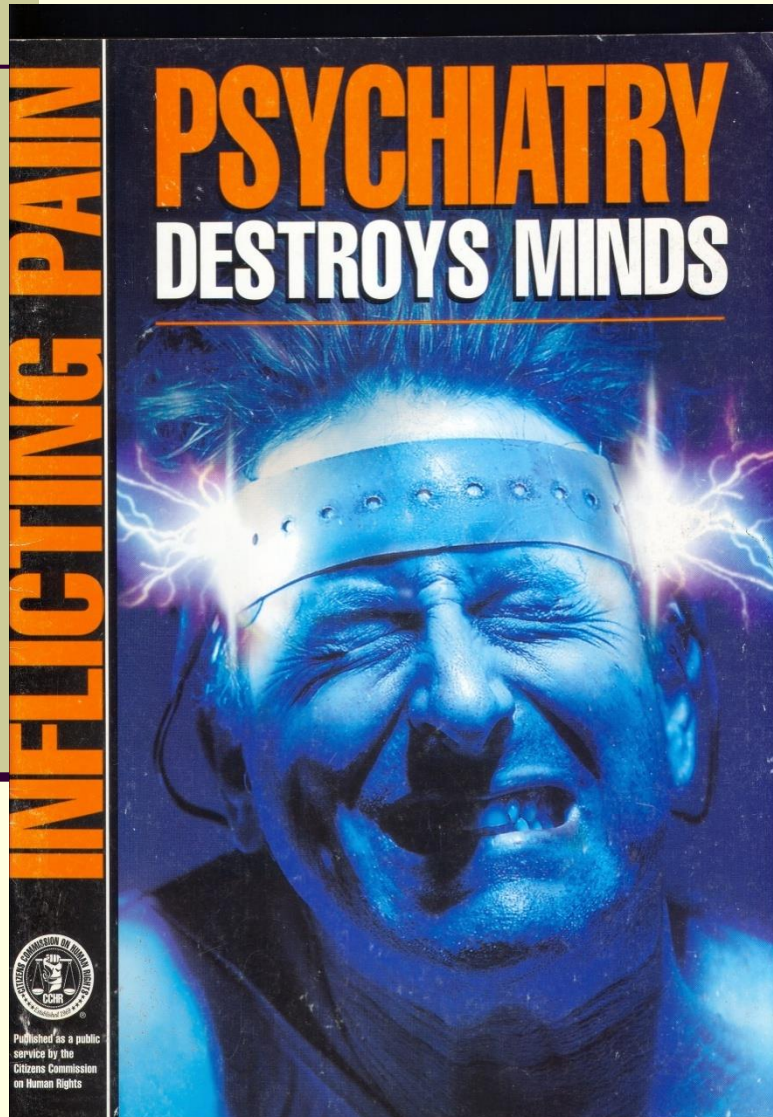
The numbers indicate row data and the mean of the coded scores.

worsened

Antipsychiatry and stigma



Brossure from the Church of Scientology



World War I:
Electroshock was given to German soldiers who feared fighting. They were implanted with militaristic commands using shock and hypnotic suggestions. It was not uncommon for soldiers to be killed, not by war, but by "electro-executions."

problems. Dr. Jahnel [a psychiatrist from the Kaiser Wilhelm Research Institute] feels that in the first world war, one had conformed the problem in a helpless manner. He feels the problem has now been solved by means of suggestive treatment with the aid of painful electric currents, as well as by the policy of not letting the patients attain the goals which the illness served. In the last war, the patients definitely felt that they could attain things by their illness, while in this war they could not."⁶⁰

An electric shock box was developed for use on German soldiers near the front. With this instrument, it was not uncommon for soldiers to be killed, not by the war, but by their attending psychiatrists. Dr. Emil Gekky, a psychiatrist and a member of the Nazi party since 1933, founded a procedure known as "electro-execution," described as follows:

"Once a patient went unconscious from the effects of the electricity, the caretakers then had to attach four other electrodes to the hands and feet of the patient. Dr. Gekky ran high voltage through them and after ten minutes at the most the death of the patient would set in."⁶¹

a method of discipline and a means to cover up embarrassing breaches in the nobility and honor demanded of German military service. It was used on soldiers for the simple reason that they believed that everyone who suffered psychological problems caused by the war were inferior and therefore had to be punished.

Leo T. Alexander studied psychiatry in Austria and Germany in the late 1920s and completed his residency in Frankfurt during the pre-Nazi nationalist fervor. In 1934, he emigrated to the U.S. and in 1942 joined the American military as consultant to the Secretary of War. He became an advisor to the Office of the Chief Counsel for War Crimes in

German psychiatrists ...overwhelmed the individual with painful electric shock while simultaneously giving them hypnotic suggestions.

Euthanasia: killing patients with an ECT machine

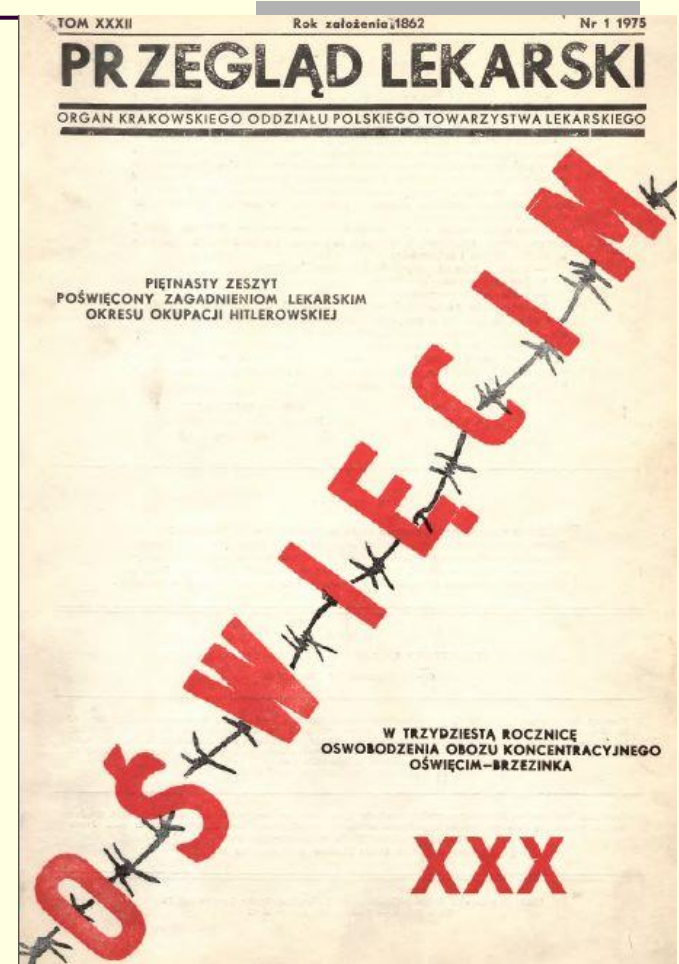
Dr Emil Gelny, director of the two psychiatric hospitals in Lower-Austria (Gugging and Mauer-Öhling)

As part of the decentralized euthanasia program, killed patients with a modified Holzer ECT machine. He added 4 extra electrodes attached to the ankles and wrists.



Building an ECT machine in Auschwitz

- A Polish prisoner doctor, **Zenon Drohocki** who was a neurophysiologist, had a description of the ECT apparatus. In cooperation with Serge Kaplan, a Dutch technician, and with the support of Dr Budziaszek, who was the chief physician Drohocki constructed an ECT device, that was finally ready by the summer of 1944.
- When the machine was ready, Drohoczki began treating mentally ill prisoners, mostly schizophrenia patients hospitalized in Monowitz.



Nazi experiments with ECT

- A prisoner who worked in a Birkenau hospital block testified that "Dr. König did electroshock experiments on women," and added: "these women later talked about their treatment. I believe Dr. König carried out the electroshock experiments on sick women twice a week and that the women were later gassed."
- In his testimony, Dr. Samuel Sternberg also asserted that Dr. König studied the effect of electric shock on the human body in Monowitz (Pasternak, 2006).

Conclusion: long lasting effect of the euthanasia crimes

- Dr. Gelny's horrific abuse has cast a long shadow on ECT and provided ammunition for the antipsychiatry movement to militate against biological treatment methods in general and ECT in particular.
- In addition to several other factors, ECT's connection with Nazi crimes might be partly responsible for its negative image, which scares patients suffering from severe, pharmacotherapy-resistant depression and prevents them from consenting to ECT.

Recommendations to improve ECT practice in Central-Eastern Europe

- Improve education with organizing special courses and integrate ECT training into the curricula of the medical students and psychiatry residents.
- Optimize the number of ECT centers: centralize if the number of treated patients/center is low (Hungary, Poland), or start new centers if the number of centers is low (Bulgaria, Serbia, Ukraine, Latvia, Croatia).
- Make efforts to destigmatize ECT and thus improve professional and public attitudes towards the method.

Thank you very much for your attention!

