



A STUDY OF THE LEVEL OF AWARENESS, CAPACITY AND CONSENT AMONG EMERGENCY HEALTHCARE WORKERS IN A TERTIARY CARE HOSPITAL IN KOLKATA.

Emergency Medicine

Gupta Arnab

ABSTRACT

Introduction: Most patients lack the medical competency to grasp the optimal course of treatment for their health, thus doctors and nurses must constantly assess whether patients can consent to tests and treatments. Patients who refuse to go to the hospital or who do not comprehend what medical activity is beneficial to their health frequently require all health care personnel to make these kinds of decisions. Thus, every healthcare provider must be aware of the risk that some of their choices may one day be criticised or reconsidered on the grounds that they neglected to offer critical therapy to a person with limited capacity because they picked an unfavorable treatment route. Patients who have self-harmed refuse medical treatment when it is detected, which is an increasingly concerning trend in today's culture. Consequently, it's vital that medical professionals in tertiary care facilities across the country are well-versed in capacity and consent difficulties such as the above metropolises like Kolkata, Mumbai, Chennai. **Aim:** To conduct research into emergency healthcare providers' awareness of ability and consent. **Materials And Methods:** Peerless Hospital researchers interviewed 84 members of the emergency medical services from July to October using a cross-sectional questionnaire (4 months). The B.K. Roy Research Center and Peerless Hospital are both located in Kolkata, West Bengal, India. SPSS 24.0 and GraphPad Prism 5 were used to perform statistical analyses on the data imported into Microsoft Excel. Unpaired proportions were compared using Chi-square or Fischer's exact tests, depending on whether statistical significance was required. **Results:** We found that association of Q1 vs. group was statistically significant ($p=0.0015$). Association of Q2 vs. group was not statistically significant ($p=0.2002$). Association of Q3 vs. group was statistically significant ($p=0.0463$). **Conclusion:** We came to the conclusion that the vast majority of emergency medical technicians lacked statistically meaningful information.

KEYWORDS

Awareness, Capacity, Consent

INTRODUCTION:

Most patients lack the medical competency to grasp the optimal course of treatment for their health, thus doctors and nurses must constantly assess whether patients can consent to tests and treatments. Patients who refuse to go to the hospital or who do not comprehend what medical activity is beneficial to their health frequently require all health care personnel to make these kinds of decisions. Thus, every healthcare provider must be aware of the risk that some of their choices may one day be criticised or reconsidered on the grounds that they neglected to offer critical therapy to a person with limited capacity because they picked an unfavorable treatment route. Patients who have self-harmed refuse medical treatment when it is detected, which is an increasingly concerning trend in today's culture. Consequently, it's vital that medical professionals in tertiary care facilities across the country are well-versed in capacity and consent difficulties such as the above metropolises like Kolkata, Mumbai, Chennai. Patients who self-harm should be treated by medical professionals who are competent to make decisions on the patient's competence and when therapy can be delivered without the patient's agreement, according to National Institute of Clinical Excellence guidelines. A three-stage evaluation was used to define capacity in these and other recommendations made by medical and legal organisations. Some medical groups' criteria deviate slightly from the Mental Capacity Act test specified in Re C, but these variances are minor. In spite of not being found negligent by doctors who follow their recommendations, the National Institute of Clinical Excellence and the British Medical Association followed a widely accepted medical consensus in the Bolam v. Friern Hospital Management Committee case despite not being found negligent.

AIM

To know emergency healthcare providers' awareness of ability and consent.

MATERIALS AND METHODS:

Study Design

A cross-sectional questionnaire study with emergency health care workers from multiple Indian tertiary care hospitals was 23 conducted using an online survey monkey site and hand-to-hand inquiries.

Study Population: emergency health care workers

Sample Size

Data was obtained from all emergency health care providers who met the inclusion criteria for this prospective study. The expected sample size. Be necessary for this investigation is computed using the RAOSoft sample size calculator with a confidence level of 95% and a human error of 5%. The sample size required for this study is 84.

Statistical Analysis:

After entering the data into MS Excel SS, SPSS (version 24.0, SPSS Inc., Chicago, IL) was used to perform the statistical analysis, and Graph Pad Prism V5 was used to create the visual representations of the results. The aggregated data was categorized as mean and standard deviation in addition to being used as numerical variables (SD). The statistical data are distributed according to the chi-squared distribution, and then a Chi-squared test (2 test) is used to assess whether or not the null hypothesis is valid. To determine if there is a statistically significant difference between predicted frequencies and all other observed frequencies in one or more categories under the contingency table, we employ Pearson's chi-squared test. Only because we're curious about how quickly the observable frequencies shift in favour of the null hypothesis are we seriously considering this strategy. Unpaired frequencies were compared using the Chi-squared test or Fischer's exact test, if suitable. Contrasting frequencies was not the same as using paired comparisons.

A 0.05 p-value was considered statistically significant in this experiment.

RESULTS:

About 56 percent of healthcare workers were under 30, 20 percent (23.8%) were in the 31-40 age range, and about 8 percent (8.1%) were in the 41-50 age range. About one percent (1.2%) were in the 51-60 age range. Women accounted for 37% (44.0 percent) of healthcare employees, while men accounted for 56% (56.0 percent). Ambulance crew made up 4 percent of healthcare employees; doctors and EMTs made up 26% of healthcare workers; nurses made up 30% of healthcare workers. Six healthcare workers (71.1 percent) had a doctor, twenty (23.8 percent) had a Jr. Doctor, and 58 (69.0 percent) had others. BSC was held by 18 healthcare professionals (21.4 percent), while an emergency technician course was held by one healthcare professional (1.2 percent). GNM was held by 10 (11.9%) of the healthcare employees. Graduation was held by 3 (3.6%) of the healthcare workers. Higher secondary education was held by 1 (1.2%) of the healthcare workers. Twenty (23.8%) of the healthcare workers held MBBS degrees. MBBS, MEM was held by 4 healthcare workers (4.8%), MRCP, MCEM, MRCS was held by 1 healthcare worker (1.2%), MSC was held by 2 (2.4%), and a technician course was held by 23 (27.2%) of the healthcare professionals.

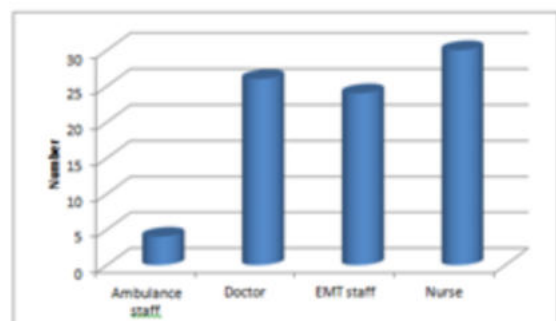
We found that the physician can only acquire written agreement from the patient or from the patient's spouse under the MCI definition, which we found in our research. No one else has the authority to provide their approval. Pre-test results showed that 41% of emergency medical technicians were positive, while post-test results showed that 69% of emergency medical technicians were positive. $P=0.0122$ indicated a

statistically significant difference. Can a person over the age of 12 offer their consent? In the pre-test, 36 emergency health workers (42.9 percent) had the correct response, and 47 emergency health workers (56.0 percent) had the correct answer in the post-test. Statistically, this change was insignificant ($p=0.0896$). In India, you must be at least 18 years old to provide your consent. Pre-test results showed that 37% of emergency health workers tested positive, while post-test results showed that 69% of emergency health workers tested positive. A 0.0010 significance level indicates that the difference was significant. Is it possible to give emergency room patients medical care without their consent? Emergency health workers got a perfect score on their pretest (66.7 percent) and a perfect score on their posttest (75.0 percent). Statistically, this change was insignificant ($p=0.2347$). Is it possible for a patient to revoke their consent at any point? Prior to the test, 25% of emergency health workers (or 29.8%) had the correct answer, while 53% of emergency health workers had the correct answer after the test. A 0.0017-point difference was found between the two groups.

Table 1: Distribution of age, gender, occupation and group.

		Frequency	Percent
Age in Years	≤30	56	66.7%
	31-40	20	23.8%
	41-50	7	8.3%
	51-60	1	1.2%
	Total	84	100.0%
Gender	Female	37	44.0%
	Male	47	56.0%
	Total	84	100.0%
Occupation	Ambulance staff	4	4.8%
	Doctor	26	31.0%
	EMT staff	24	28.6%
	Nurse	30	35.7%
	Total	84	100.0%
Group	Doctor	6	7.1%
	Jr. Doctor	20	23.8%
	Others	58	69.0%
	Total	84	100.0%
Education	BSC	18	21.4%
	emergency technician course	1	1.2%
	GNM	10	11.9%
	Graduation	3	3.6%
	higher secondary graduate	1	1.2%
	MBBS	20	23.8%
	MBBS,FEM,MEM	1	1.2%
	MBBS,MEM	4	4.8%
	MBBS,MRCP,MCCEM,MRCG	1	1.2%
	MSC	2	2.4%
	technician course	23	27.4%
	Total	84	100.0%

Diagram 1: Distribution of Ambulance Staff, Doctor, EMT Staff, Nurse



In our research, we discovered that in emergency situations requiring blood transfusion, consent is essential. In the pre-test, 26.2% of emergency health workers answered correctly, while in the post-test, 61.9% of emergency health workers answered correctly. There was a statistically significant difference between the groups ($p=0.0001$). Is it possible to treat a person who has been detained without their permission? Before the exam, 27.3% of emergency health workers knew the answer, and 67.9% of emergency health workers knew the answer after the test, hence the test was a success. In terms of statistical significance ($p=0.0001$), there was a difference between the groups. A valid consent can be given by someone who is drunk. In the pre-test, 30 emergency health workers (35.7 percent) had the correct response, and 49 emergency health workers (58.3 percent) had the correct answer in the post-test. $p=0.0033$ showed that this difference was significant. If a procedure has the potential to cause infertility, both the husband and the wife must agree to it. Prior to the test, 32% of emergency health workers tested positive, and 75% of those workers tested positive again after the test. This discrepancy was substantial statistically. Medico-legal examinations to determine age, potency, virginity, and other factors should always be accompanied by a written consent from the person being examined. An emergency health professional had a correct answer in 31% of pre-test questions, and a correct answer in 73% of post-test questions in an emergency health worker. There was a statistically significant difference between the two groups. ($p=0.0001$)

Consent, according to our findings, consists of two elements: disclosure and capability. 17 emergency health professionals (20.2 percent) tested positive before the test, while 42 emergency health workers (50.0 percent) tested positive after the test. There was a statistically significant difference between the groups ($p=0.0001$). The phrase "disclosure" refers to the practitioner sharing critical information with the patient. Before the test was conducted, 18 emergency health workers (21.4%) tested positive, and 63 emergency health workers (75.0%) tested positive after the test was administered. The ability of an individual to make a decision without being affected by others is referred to as willingness to participate. Thirty emergency medical personnel (35.7%) tested positive before the test, and 63 (75.0%) tested positive thereafter. There was a statistically significant difference between the two groups ($p=0.0001$).

Does a competent patient, as established in our study, have the legal and moral right to refuse treatment even in life-threatening situations? On the pre-test, emergency medical personnel answered 39.3 percent of the questions correctly, and on the post-test, they answered 75 percent of the questions correctly. The terms of an express authorization are those that are stated explicitly and without ambiguity. 43 emergency health employees (51.2%) were positive before the test, while 66 emergency health workers (78.6%) were positive after the test. There was a statistically significant difference between the groups ($p=0.0002$). Before starting with a therapy that poses a risk, causes discomfort, or impairs a bodily function, obtain express consent. Pre-test results revealed that 36% of emergency medical personnel were positive, but post-test results revealed that 81 percent of emergency medical personnel were positive. The difference between the groups was statistically significant ($p=0.0001$).

According to our data, in Q1, 5 doctors (83.3%) had the correct response, 6 junior doctors (30.0%) had the correct response, and 10 other healthcare workers (17.2%) had the correct response. The relationship between Q1 and three separate groups was statistically significant ($p=0.0015$).

In Q2, there were 4 doctors (66.7 percent) who got the right answer, 8 junior doctors (40.0 percent), and 18 other healthcare workers (31.0 percent) who got it right. Q2 was not linked to any of the three groups, according to the evidence.

In Q3, there were four accurate answers for junior doctors, six correct answers for other healthcare workers, and twelve correct answers for other healthcare employees.

Only 42.3% of questions were answered correctly by doctors in Q1, while only 17.2% were answered correctly by other healthcare workers. There was a statistically significant connection between Q1 and both groups ($p=0.0141$). Q2 saw 12 doctors (46.2 percent) and 18 other healthcare professionals get the answer right (31.0 percent). Q2 had no statistically significant relationship with either group ($p=0.1812$). In Q3, ten doctors (38.5%) and 12 other healthcare

workers (20.7%) received the correct response. Q3 had a statistically significant relationship with both groups ($p=0.0467$).

CONCLUSION

Healthcare providers in the event of an emergency have a limited understanding of how to determine a patient's ability and treat them accordingly. In comparison to other healthcare professionals, doctors are more effective, yet senior doctors are more concerned than Jr. Doctors and EMOs. We discovered a statistically significant knowledge gap among emergency medical technicians

LIMITATIONS OF THE STUDY

Despite my best efforts, there are gaps in my research.

The following are some of this study's flaws:

1. The study has been done in a single centre.

REFERENCES

1. Human Rights Act 1998
2. B (consent to treatment: Capacity), Re (2002) EWCH 429 (Fam); (2002) 1 FLR 1090
3. Re Guardianship of Schiavo (2005) WL 600377
4. Mental Capacity Act 2005
5. Hassan TB, MacNamara AF, Davy A. et al Managing patients with deliberate self harm who refuse treatment in the accident and emergency department. *BMJ* 1999;319:107-109.
6. National Institute for Clinical Excellence, Self-harm: The short-term physical and psychological management and secondary prevention of self-harm in primary and secondary care p.2004.
7. British Medical Association and The Law Society Assessment of Mental Capacity, Guidance for Doctors and Lawyers. London: BMJ Books, 2004
8. Department of Health 12 Key points on consent: the law in England. London: The Stationery Office, August, 2001
9. Re C (Adult: Refusal of Medical Treatment) (1994) 1 All ER 819 at 822
10. Tan J A O, McMillan, JR The discrepancy between the legal definition of capacity and the British Medical Association's guidelines. *J Med Ethics* 2004;30:427-429.
11. Bolam v Friern Hospital Management Committee (1957) 2 All ER 118; (1957) 1 WLR 582
12. Hermann H, Trachsel M, Mitchell C, Biller-Andorno N. Medical decision-making capacity: knowledge, attitudes, and assessment practices of physicians in Switzerland. *Swiss medical weekly*. 2014 Oct 15;144(4142).
13. Young G, Douglass A, Davison L. What do doctors know about assessing decision-making capacity?. *Concern*. 2018 Mar 9;45:61.
14. Nicks BA, Sawe HR, Juma AM, Reynolds TA. The state of emergency medicine in the United Republic of Tanzania. *African Journal of Emergency Medicine*. 2012 Sep 1;2(3):97-102.
15. Geiling J, Burkle Jr FM, Amundson D, Dominguez-Cherit G, Gomersall CD, Lim ML, Luyckx V, Sarani B, Uyeki TM, West TE, Christian MD. Resource-Poor Settings: Infrastructure and Capacity Building. *Chest*. 2014 Oct 1;146(4):e156S-67S.
16. Van Minh H, Anh TT, Rocklöv J, Giang KB, Trang LQ, Sahlen KG, Nilsson M, Weinehall L. Primary healthcare system capacities for responding to storm and flood-related health problems: a case study from a rural district in central Vietnam. *Global health action*. 2014 Dec 1;7(1):23007.
17. Coyle RM, Harrison HL. Emergency care capacity in Freetown, Sierra Leone: a service evaluation. *BMC emergency medicine*. 2015 Dec;15(1):2.
18. Barnett DJ, Levine R, Thompson CB, Wijetunge GU, Oliver AL, Bentley MA, Neubert PD, Pirrallo RG, Links JM, Balicer RD. Gauging US emergency medical services workers' willingness to respond to pandemic influenza using a threat-and efficacy-based assessment framework. *PLoS One*. 2010 Mar 24;5(3):e9856.
19. Bajpai V. The challenges confronting public hospitals in India, their origins, and possible solutions. *Advances in Public Health*. 2014;2014.
20. Qureshi K, Gershon RR, Sherman MF, Straub T, Gebbie E, McCollum M, Erwin MJ, Morse SS. Health care workers' ability and willingness to report to duty during catastrophic disasters. *Journal of urban health*. 2005 Sep 1;82(3):378-88.
21. Dudley N, Ackerman A, Brown KM, Snow SK, American Academy of Pediatrics Committee on Pediatric Emergency Medicine, Emergency Nurses Association Pediatric Committee. Patient-and family-centered care of children in the emergency department. *Pediatrics*. 2015 Jan 1;135(1):e255-72.
22. Veenema TG, Boland F, Patton D, O'Connor T, Moore Z, Schneider-Firestone S. Analysis of emergency health care workforce and service readiness for a mass casualty event in the republic of Ireland. *Disaster medicine and public health preparedness*. 2019 Apr;13(2):243-55.
23. Rowntree G, Atayero S, Diem M, Hoffmann M, Jassi A, Narusevicius V, Tsapekos D. Resilience in emergency medical responders: A pilot study of a reflective journal intervention using a mixed methods approach. *Journal of European Psychology Students*. 2015 Jul 22;6(2).
24. Hudson AJ, Glaister GD, Wieden HJ. The emergency medical service microbiome. *Appl. Environ. Microbiol.*. 2018 Mar 1;84(5):e02098-17.
25. Donnelly M. Capacity assessment under the Mental Capacity Act 2005: Delivering on the functional approach?. *Legal studies*. 2009 Sep;29(3):464-91.
26. Lamont S, Jeon YH, Chiarella M. Health-care professionals' knowledge, attitudes and behaviours relating to patient capacity to consent to treatment: An integrative review. *Nursing ethics*. 2013 Sep;20(6):684-707.