

Knowledge of Emergency Medical Management among Medical Students

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Abstract :

Introduction : Emergency Medical Management is the key to reduce the mortality and morbidity to a huge extent. Unfortunately, that is a medical facet largely unattended to, by the service providers in developing countries like India. With the aid of this research, an attempt was made to find the prevalence of emergency medical management knowledge among the upcoming doctors. **Aim :** To evaluate the knowledge of emergency medical management among the undergraduate medical students. **Materials & Method :** The study was conducted at a tertiary care hospital attached with a medical college, at one of the cities of the Western part of India. The study was conducted during the period of April 2016 to July 2016; with a sample size of 200, through a convenient sampling among the undergraduate students. The questionnaire was made, including pre-tested questions in three categories A, B, C - "Must to know", "Desirable to know", "Good to know" for 1, 1.5, 2 points respectively. The questionnaire was distributed among students, answered and analysis was done according to the categories of questions, applying appropriate statistical tests. According to points obtained, the individual student's performance was categorized as poor, average and good. **Results :** Among all the 200 students, 75 (37.5%) students had poor knowledge, 110 (55%) had average knowledge and 15 (7.5%) had good knowledge. Among 1st year students, 50% had poor and only 2.5% had good knowledge. While among the students doing internship, only 30% had good knowledge. Among the 2nd, 3rd and 4th year students, 15%, 12.5% and 7.5% had poor knowledge, respectively. **Conclusion :** Interns and final year students had comparatively better knowledge than other students. But less than 1/3rd of students doing internship had good knowledge, which is not sufficient enough to provide the emergency medical management approach to the community.

Key words : Emergency Medical Management, Knowledge, Medical Students

Introduction :

Emergency Medical Management is the key to reduce the mortality and morbidity to a huge extent. Unfortunately, that is a medical facet largely unattended to, by the service providers in developing countries like India. It is estimated that about 40-50% of all cardiovascular deaths are sudden cardiac deaths (SCDs) globally. ⁽¹⁾ A relatively high number of Deaths in state like Gujarat are due to Heart Attack which can be preventable by Emergency Medical Management. ^(2,3)

Approximately 5 million people die every year around the world from accidental and non-accidental trauma, making trauma the leading cause of death in people under the age of 45. ⁽⁴⁾ Road traffic Accidents have been a major issue in India, 16 deaths on an average occurred every hour in India on roads in year 2014. ⁽⁵⁾ With the aid

of this research, an attempt was made to find the prevalence of Emergency Medical Management knowledge among the upcoming doctors. Attempt to compare the knowledge of Emergency Medical Management among the students of different years at Gujarat Cancer Society (GCS) Medical College, Ahmedabad, India, was made.

Not only in Ahmedabad or just Medical Students, it is important to evaluate and improve the knowledge of Emergency Medical Management among Dental and other Para-Medical Students in different part of world which grossly seem to be inadequate based on similar studies. ^(1,2)

Materials & Method :

The study was conducted among Undergraduate Medical Students of GCS Medical College, Ahmedabad, Gujarat during April to July 2016. As a part of sample, 200 students were selected out of 750 Students/Interns through convenient sampling - from them, 40 students were selected randomly from each

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batch like 40 from 1st , 2nd , Final MBBS part-I and part-II and Interns.

Pretested questionnaire was prepared consisting of 27 questions, which was first answered by 10 students as a part of pilot study and then Performa was finalized and was distributed among study participants:

The questionnaire consisting of MUST TO KNOW questions (Q no. 1-9), DESIRABLE TO KNOW questions (Q no. 10-18) & GOOD TO KNOW questions (Q no. 19-27) was answered by the sample group of students.

The result was analyzed according to criteria poor, average and good performance in particular category of questions and also according to the percentage of students from each year for different performance and finally comparing the cumulative knowledge among each year.

In each category of questions, students were categorized having- (Out of 9) POOR performance with 1-3 correct answers, AVERAGE performance with 4-6 correct answers, GOOD performance with 7-9 correct

answers for that particular category. Then marks were given according to the difficulty of the category of questions among MUST TO KNOW questions (1 mark each), DESIRABLE TO KNOW questions (1.5 marks each), GOOD TO KNOW questions (2 marks each).

Out of 40 marks, students attaining, 1-13 marks were categorized having POOR knowledge, 14-26 marks were categorized having AVERAGE knowledge, 27-40 marks were categorized having GOOD knowledge.

Results :

Among the Interns, even after getting all the curriculum knowledge, only 15% students had GOOD knowledge for the MUST TO KNOW category of questions and only 5% of students from 1st MBBS had GOOD knowledge for the same category.

Among all the students of college from 1st MBBS to Interns, most students' performance was POOR/AVERAGE, i.e., 87.5%. And only 12.5% of total students had GOOD knowledge for the same category of questions.

Table 1: Distribution of Medical students according to their knowledge for "MUST TO KNOW"

Knowledge	1 st MBBS (n=40)	2 nd MBBS (n=40)	Final MBBS part-I (n=40)	Final MBBS part-II (n=40)	Interns (n=40)	Total (n=200)
POOR	17(42.50%)	15(37.50%)	3(7.50%)	0(0%)	2(5%)	37(18.5%)
AVERAGE	21(52.50%)	23(57.50%)	30(75%)	36(90%)	32(80%)	142(71%)
GOOD	2(5%)	2(5%)	7(17.50%)	4(10%)	6(15%)	21(10.5%)

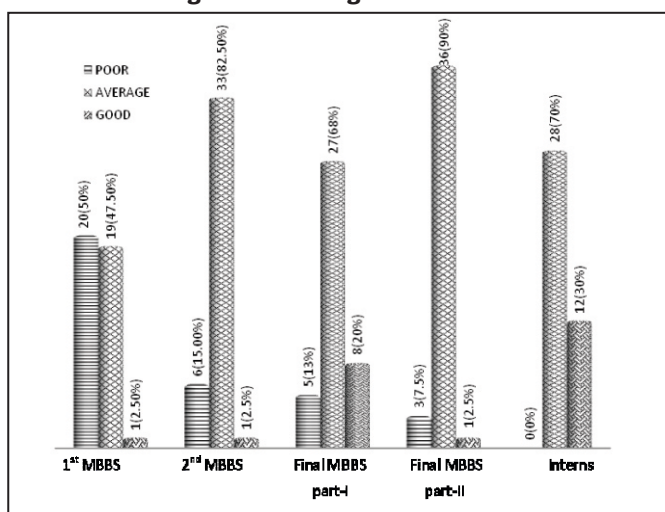
Table 2 : Distribution of Medical students according to their knowledge for "DESIRABLE TO KNOW" category of questions (n=200)

Knowledge	1 st MBBS (n=40)	2 nd MBBS (n=40)	Final MBBS part-I (n=40)	Final MBBS part-II (n=40)	Interns (n=40)	Total (n=200)
POOR	24(60%)	25(62.50%)	13(32.50%)	8(20%)	5(12.50%)	75(37.5%)
AVERAGE	15(37.50%)	14(35%)	23(57.50%)	28(70%)	30(75%)	110(55%)
GOOD	1(2.50%)	1(2.50%)	4(10%)	4(10%)	5(12.50%)	15(7.5%)

Table 3: Distribution of Medical students according to their knowledge for “GOOD TO KNOW” category of questions (n=200)

Knowledge	1 st MBBS (n=40)	2 nd MBBS (n=40)	Final MBBS part-I (n=40)	Final MBBS part-II (n=40)	Interns (n=40)	Total (n=200)
POOR	30(75%)	7(17.50%)	12(30%)	12(30%)	4(10%)	65(32.5%)
AVERAGE	7(17.50%)	27(67.50%)	22(55%)	26(65%)	22(55%)	104(52%)
GOOD	3(7.50%)	6(15%)	6(15%)	2(5%)	14(35%)	31(15.5%)

Figure 1: Comparison of “POOR, AVERAGE & GOOD KNOWLEDGE” about emergency medical management among Medical students



Only 35% of Interns performed GOOD for the GOOD TO KNOW category of questions, while most (75%) of the 1st MBBS students performed POOR for the same category. Among the Interns, 55% of students had AVERAGE knowledge for the same category.

Out of total 40 students from each batch, as high as 20 students from 1st MBBS had POOR knowledge, while as low as 12 students from Interns had GOOD knowledge and as many as 70% of Interns had AVERAGE Knowledge for the same category.

Discussion :

Among all the 200 students, 75 (37.5%) students had poor knowledge, 110 (55%) had average knowledge and 15 (7.5%) had good knowledge. Among 1st year students, 50% had poor and only 2.5% had good knowledge. While among the students doing

Internship, only 30% had good knowledge. Among the 2nd year, Final MBBS part-I and part-II students, 15%, 12.5% and 7.5% had poor knowledge, respectively.

Similar study was done by Swetha et.al. (6) at MVJ Nursing college, Bangalore, India among BSc Nursing students with a pre-tested questionnaire, also by Joseph et.al. (7) at Mangalore among Medical Students, have shown inadequate knowledge among students.

Another study done by Amal Salem at Tahiban University, Saudi Arabia, among Medical, Dental, & Nursing students, showed lack of knowledge about Emergency Medical Management & First Aid. (8)

One study conducted in United Arab Emirates have shown significant benefit of adding a program in curriculum regarding Emergency Medical Management among Students. (9)

Conclusion :

Interns and Final year students had comparatively better knowledge than other students. 50% students of 1st year had poor cumulative knowledge. Less than 1/3rd of students doing Internship had good knowledge, which is not sufficient enough to provide the Emergency Medical Management approach to the community. Medical students, immediately after entering a Medical school are expected to have some basic knowledge, by the community, to at least save someone’s life. Hence, it is the need of the hour to incorporate an adequate and applicable knowledge of Emergency Medical Management in the curriculum of the undergraduate students in different years of the course in graded manner.

Recommendation :

Teaching regarding Emergency Medical Management should be undertaken for at least 1st and 2nd year Medical students with the aim of making students aware and understand its value.

Students are recommended to attend Seminars & Continuing Medical Education (CME) regarding the Emergency Medical Management. Students should also go through the courses like Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS) as early as possible during their curriculum. The same should be revised mandatorily during Internship, so that all the students passing out MBBS become capable of providing Emergency Medical Management no matter in which specialty they are going.

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