

Awareness and Practices of First Aid for Common Medical Emergencies Among Late Adolescent Medical Students at SMS Medical College, Jaipur

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ABSTRACT

Background : First aid is applied to injured or ill persons in any health threatening situations in order to save life, prevent degradation of the situation or contribute to a treatment process before professional medical care is available.

Objective : The Assessment of the awareness and practices of First Aid for common medical emergencies among late adolescent medical students.

Methodology : This Cross Sectional Observational study was conducted among late adolescents newly admitted medical students of batch 2018 at the time of medical examination at SMS Medical College, Jaipur. Target sample size came to be 160 out of 250 students. Data was collected using pretested predesigned written questionnaire. Based on the scores obtained in each condition requiring First Aid for common medical emergencies, the overall Awareness and Practices was graded as good, moderate and poor. All data were analyzed by Microsoft Excel and Primer software.

Results : Mean age of student was 18.35 ± 0.68 years. Most of them were Male (56.25%). 60% students had good, 34.68% had moderate and 5.62% had poor scores of Awareness about First Aid. 12.50% students had good, 76.87% had moderate and 10.63%

had poor scores of Practice about First Aid. Significant association between Gender and Age with Awareness & Practice regarding First Aid was found.

Conclusion : The level of knowledge about first aid was not satisfactory among most of the students. Study identified the need for introducing formal First Aid training sessions for medical students in the medical curriculum.

Keywords : Late adolescent, First Aid, Medical students.

INTRODUCTION :

First Aid is the providing of first and early care for an illness or injury, by a non-expert but trained person, till medical treatment can be accessed. Immediate First Aid when provided to patients who require emergency care makes a huge difference to the outcome and may obviate the need to visit a hospital or clinic, lessening demand on medical facilities. Many experts believe that even a limited understanding of First Aid would be an invaluable service to individuals who find themselves in emergency situations. First Aid training courses are suitable for the people across the world, belonging to different age groups of more than 10 years. Essential First Aid training will offer them the “A B C” of treatment and guiding principles of most minor

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injuries and emergency medical conditions. The skills building in First Aid with the vulnerable people can help to build a safer and healthy community.

A basic knowledge and understanding of First Aid can be crucial for individuals to be able to provide emergency care in case of an accidental event by saving lives and minimizing injuries.

Glendon et al² suggested that the teaching of First Aid to students is probably cost-effective in terms of saving lives and First Aid should be taught within schools. Engeland et al (2002)³ studied the implementation of training of First Aid to junior high school students to measure the implementation of the program for teachers and their students' about attitudes and knowledge of First Aid and found that students whose teachers implemented the program enthusiastically, had better attitudes toward First Aid implementation and were more knowledgeable in First Aid⁴.

At some point in the medical curriculum students are being taught how to handle emergencies in a hospital emergency setting where drugs and other necessities are available. However, the adequate knowledge required for handling an emergency without hospital setting at the site of the accident or emergency may not be sufficient^{5,6}. Studies have found that the knowledge of first aid amongst new medical students has always been a neglected subject so it is not surprising to note that even junior doctors at certain hospitals cannot perform the first aid skills satisfactorily⁷.

Basic First Aid training regarding Common Medical Emergencies at a place away from hospital has never been incorporated in curriculum since schooling onwards. This study was conducted to assess the awareness and practices among the late adolescent Medical Students at the time of their admission to SMS Medical College, Jaipur for the assessment of awareness and practices of First Aid for common medical emergencies like trauma / injuries, choking, external bleeding (including epistaxis), bites

(animals, insects, snake bite etc), burns, drowning, poisoning and general medical complications of fever, vomiting, gastroenteritis, heart attack, seizures etc.

MATERIAL AND METHODS :

This Cross Sectional Observational study was conducted among late adolescents newly admitted medical students of batch 2018 at the time of medical examination at SMS Medical College, Jaipur with Aim and Objectives to assess their Awareness and Practices about First Aid of Common Medical Emergencies and the factors associated with it, from July 2018 to September 2018.

All new entrant in Late Adolescent age group i.e. 16-19 yrs and willing to participate in study were taken for study (160 out of 250 total new entrant 2018 batch).

A detailed plan of the study was explained to students under study. A pretested predesigned written questionnaire [based on American Red Cross Standard First Aid book and modified & validated] was used to assess their Awareness and Practice about First Aid of common medical emergencies like trauma/injuries, choking, external bleeding (including epistaxis), bites (animals, insects, snake bite etc), burns, drowning, poisoning and general medical complications of fever, vomiting, gastroenteritis, blood pressure, heart attack, seizures etc Sufficient time was given to the students for reply of the questions.

Data collected and entered into Microsoft Excel spreadsheet to make a master chart. Primer software was used for statistical calculations and data is presented in the form of tables and graphs.

Operational definitions for study :-

- 1. Awareness :** Awareness refers to expertise & skills acquired by a person through education & experience the theoretical or practical understanding of subject.

2. **Practices :** Practice refers to judgment of senior secondary school going adolescent regarding the management of First Aid emergencies.
3. **First Aid :** First Aid refers to immediate care given to a school going adolescent by any person (student or teacher) to a person who has been met with an accident or suddenly ill.
4. **Common medical emergencies :** Emergency refers to common medical emergencies like trauma / injuries, choking, external bleeding (including epistaxis), bites (animals, insects, snake bite etc), burns, drowning, poisoning and general medical complications of fever, vomiting, gastroenteritis, blood pressure, heart attack, seizures etc among secondary school children.

RESULTS :

Mean age of the students' was 18.35±0.68 years. Most of the students were Male 56.25%. Among all Students, 60.00% had Good, 34.68% had Moderate and 5.62% had Poor scores of Awareness about First Aid for common medical emergencies (Table 1). Practice Scores about First Aid for common medical emergencies among the Students' was Good in 12.50% only followed by 76.87% Moderate and 10.63% Poor score. There was significant association between gender and age with Awareness & Practice regarding First Aid for common medical emergencies was found (Table 2).

Awareness Scores of First Aid for different Medical Emergencies were good in majority participants (ranging from 45% to 78%) whereas Practice scores for various medical emergencies were good only in 8% to 14% participants (Table 3).

Table 1 : First Aid Awareness-Scores among Medical Students

Variables	Good (>22)	Moderate (15-22)	Poor (<15)	Total	Chi Square P value
	Number (%)	Number (%)	Number (%)	Number (%)	
Total	96 (60)	55 (34.38)	9 (5.62)	160 (100)	
Gender					
Male	40 (44.44)	45 (50.00)	5 (5.56)	90 (56.25)	22.908
Female	56 (80.00)	10 (14.29)	4 (5.71)	70 (43.75)	<0.000
Age (18.35 ± 0.68)					
16-17	6 (28.57)	12 (57.14)	3 (14.29)	21 (13.13)	10.848
18-19	90 (64.75)	43 (30.94)	6 (4.32)	139 (86.87)	0.004
Family Type					
Nuclear	51 (55.43)	37 (40.22)	4 (4.35)	92 (57.5)	3.529
Joint	45 (66.18)	18 (26.47)	5 (7.35)	68 (42.5)	0.171

Table 2 : First Aid Practice - Scores among Medical Students

Variables	Good (>25)	Moderate (20-25)	Poor (<20)	Total	Chi Square P value
	Number (%)	Number (%)	Number (%)	Number (%)	
TOTAL	20 (12.5)	123 (76.88)	17 (10.63)	160 (100)	
Gender					
Male	17 (18.89)	57 (63.33)	16 (17.78)	90 (56.25)	21.53
Female	3 (4.29)	66 (94.29)	1 (1.43)	70 (43.75)	<0.000
Age (18.35 ± 0.68)					
16-17	5 (23.81)	10 (47.62)	6 (28.57)	21 (13.13)	12.492
18-19	15 (10.79)	113 (81.29)	11 (7.91)	139 (86.87)	0.002
Family Type					
Nuclear	8 (8.70)	73 (79.35)	11 (11.96)	92 (57.5)	3.04
Joint	12 (17.65)	50 (73.53)	6 (8.82)	68 (42.5)	0.219

Table 3: Awareness and Practices Scores of First Aid for Common Medical Emergencies.

Medical Emergencies	Awareness			Practices		
	Good Score	Not Good Score	Total	Good Score	Not Good Score	Total
	N (%)	N (%)		N (%)	N (%)	
General First Aid	125(78)	35(22)	160	30(19)	130(81)	160
Injuries	112(70)	48(30)	160	25(16)	135(84)	160
Choking	84(53)	76(47)	160	19(12)	141(88)	160
Bleeding	109(68)	51(32)	160	21(13)	139(87)	160
Bites (Animal & Insect)	87(54)	73(46)	160	23(14)	137(86)	160
Burn	92(57)	68(43)	160	18(11)	142(89)	160
Drowning	89(56)	71(44)	160	14(9)	146(91)	160
Poisoning	96(60)	64(40)	160	12(8)	148(92)	160
Other Medical Emergencies	72(45)	88(55)	160	18(11)	142(89)	160

Awareness and Practices of First Aid for Common Medical Emergencies Among Late Adolescent Medical Students at SMS Medical College, Jaipur

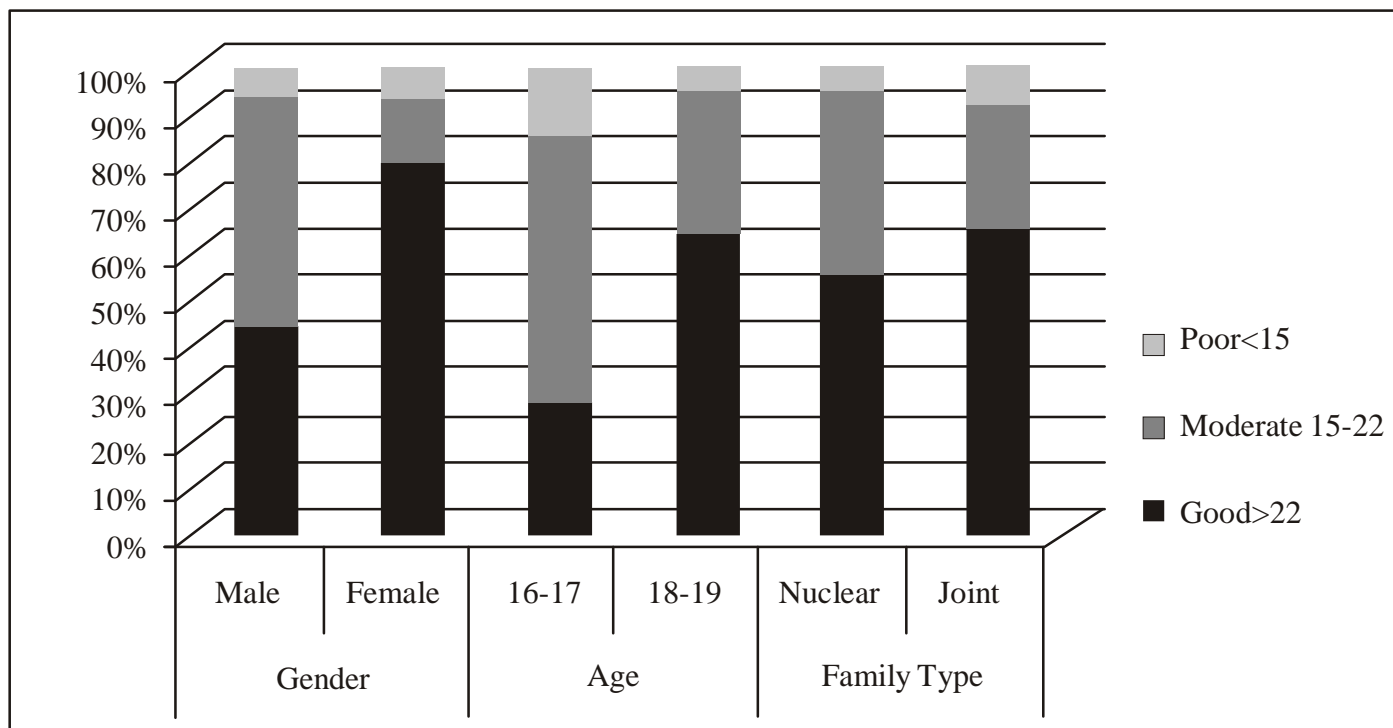


Figure 1 : First Aid Awareness - Scores among Medical Students

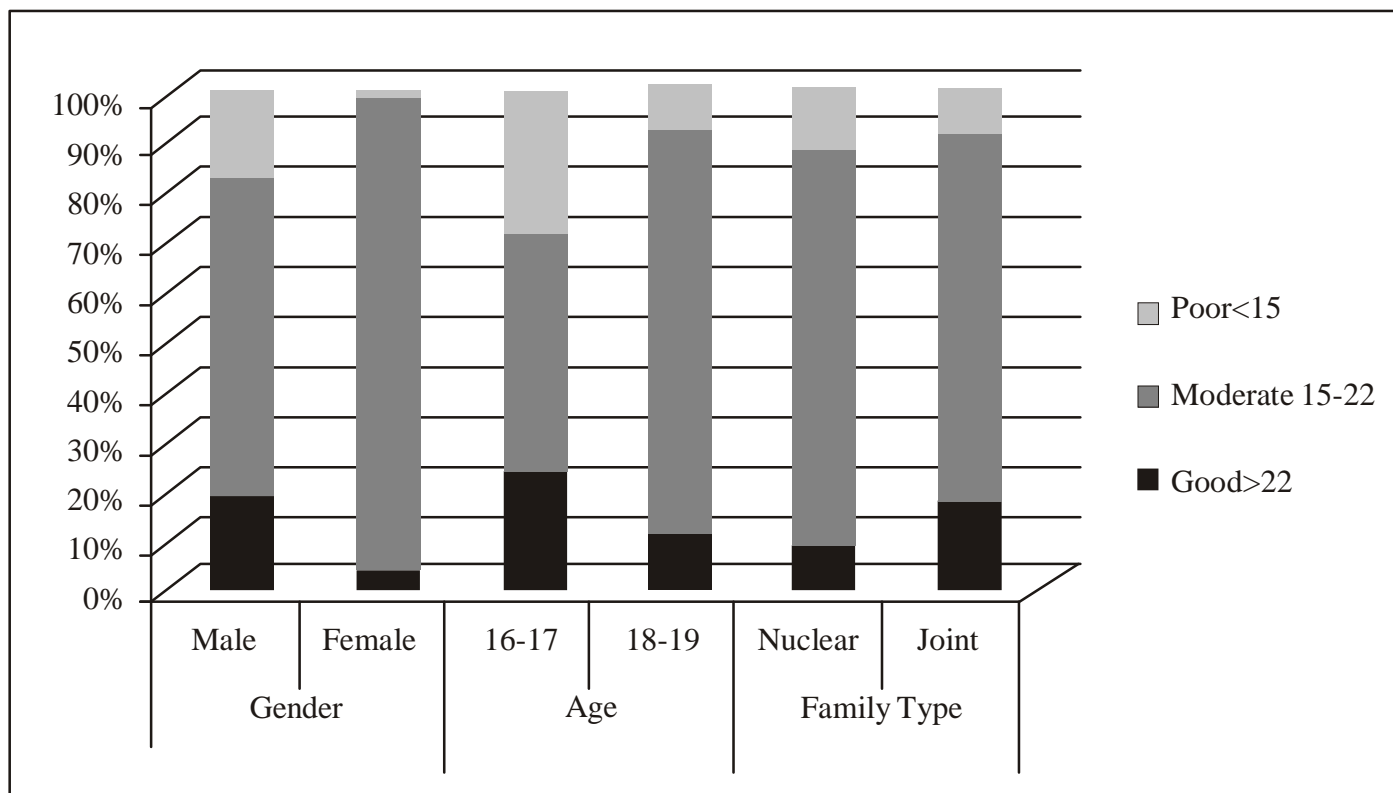


Figure - 2. First Aid Practice - Scores among Medical Students

DISCUSSION :

This study shows students' score of First Aid Awareness for common medical emergencies (60%) was good than Practice (12.5%), which is comparable with study by Deepak et al (2012)⁸ who concluded that 62% participant had good Awareness (knowledge) followed by 38% had average Awareness (knowledge).

Our study found that females had slightly better Awareness about first aid than males, which is similar to the findings of the studies, by Khan et al (Karachi-2010)⁹ and Mejia CR, et al (Peru- 2011)¹⁰, they found a significant association between awareness about first aid and female gender.

First Aid Awareness for common medical emergencies were significantly better in 18-19yrs age group than 16-17yrs age group which is significant (p-value<0.05) and comparable with the study by Mobarak et al (Saudi Arabia- 2015)¹¹, their study found a significant association between awareness about first aid and increasing age of students.

Our study shows majority of the students had adequate awareness about First Aid in different medical emergencies (Good score – 45% to 78%) which is in contrast to the study by Mobarak et al (Saudi Arabia- 2015)¹¹ who suggested that, the first aid preparedness in the Saudi student community is inadequate.

Our study found First Aid Practices in different type of medical emergencies is lower (Good score - 12.5% only) and similar to study done by Khan A. et al in Karachi⁹ (Good score - 7.7%) and Li et al¹² in China (Good score - 3.7% among school staff). Both of the authors found the inadequacy in knowledge and skills of First Aid in common medical emergencies and recommended proper training programs (both theory and practical) for participants.

CONCLUSION :

The level of Awareness and Practices about First Aid for common medical emergencies was not

satisfactory among most of the students. Our study identifies the need for introducing formal first aid training sessions for new medical students as a felt need in the medical curriculum.

LIMITATIONS :

1. First Aid is a multifaceted concept and encompasses a vast array of interpretations, so it becomes extremely challenging to give equal treatment and justice to different shades of First Aid Management of Common Medical Emergencies. Thus, the study restricts to the First Aid of common medical emergencies from general public's point of view and the information obtained is related to the common medical emergencies and their First Aid management among late adolescent students only.
2. This study was conducted at S.M.S. Medical College, Jaipur among new entrant late adolescent students of batch 2018 hence the findings may not be actual reflection of the adolescent population of the Jaipur city. A new study for the same can be planned in future on a bigger scale involving the entire target population of the adolescents of urban and rural areas of the city.
3. Time constrain was another limitation of this study and it would have been better with pre and post training analysis type of study with ample of time.

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Awareness and Practices of First Aid for Common Medical Emergencies Among Late Adolescent Medical Students at SMS Medical College, Jaipur

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