



INTEGRATED APPROACH TO SENSITISE MEDICAL STUDENTS ON MANAGEMENT OF TOBACCO AND ALCOHOL USE DISORDERS

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ABSTRACT

Introduction: The problem of tobacco and alcohol use disorders need to be addressed in a more effective manner than at present. The objectives of the study are to sensitise medical students regarding this problem, to impart them basic training to counsel the patients and to understand their perspective on this method of teaching.

Methods: The Departments of Community Medicine and Psychiatry jointly conducted sessions for the third year medical students attending Community Medicine postings to sensitize them on tobacco and alcohol use disorders. Didactic lectures by the faculty and role plays by the students were followed by feedback by the faculty regarding basic counselling principles. A cross-sectional study using self-administered anonymous questionnaires, was conducted among these students.

Results: Of the 175 questionnaires analysed, 95.4% agreed that medical students have to be sensitized about the problem of tobacco and alcohol use. 97.7% felt that they should acquire skills to identify persons with these disorders and 98.9% said that they needed training to counsel.

Conclusion: Such interactive sessions in Community Medicine teaching will make the students comprehend better and make the learning more interesting. They will be better empowered to act at primary and secondary levels of prevention of substance use disorders.

Key Words: Tobacco, alcohol, Medical students, counselling skills.

INTRODUCTION

Medical graduates must possess the attributes that are essential to meet their individual and collective responsibilities to society. The learning objectives for medical education programmes should reflect an understanding of that attributes.¹

While the graduates generally possess reasonably sound knowledge of medical science, they are often found deficient in having clinical skills and problem-solving abilities which form the core of clinical

competence. There are areas in the medical curriculum, like medical ethics, behavioral science, communication skills, managerial skills which are not given the due importance which they deserve.²

The focus of the medical curriculum 2012 is the emphasis on competency based learning, integrated and student-centred acquisition of skills and ethical and humanistic values. By introducing student-centred learning methods, the teaching and learning process is aligned and integrated across specialties for better comprehension by the students. Indian

Medical Graduates must have the essential skills to provide care, make decisions, communicate effectively, and be an efficient manager who will cater to the needs of the primary health care services of our country.³

Substance misuse is a major public health challenge both nationally and globally. Doctors within all branches of medicine are very likely to encounter individuals with substance related health problems.⁴ Tobacco smoking and excessive alcohol use are among the leading causes of mortality and morbidity world-wide.⁵ Both these habits can be reduced by clinical interventions that are highly cost-effective, and can be delivered by general practitioners with relatively little training.⁶⁻⁷

Severe alcohol dependence requires specialist intervention.⁸ However, brief interventions for problem drinkers can be employed in general practice.⁷ Hence these areas are very essential topics to be included in both undergraduate and postgraduate medical education curricula.

This has been recognised by both the World Health Organisation and the United Nations who have recommended to governments that substance misuse should be included in medical teaching.⁴

In spite of the high burden of tobacco and alcohol use, the medical curricula of medical schools in low and middle income countries are deficient in training students about its cessation techniques.⁹ A worldwide medical school survey on teaching about this topic has reported that these issues are usually taught non-systematically as and when the topic arose. The survey also reported that only a tenth of surveyed medical schools had a specific module on substance use.¹⁰ Currently, minimal and unstructured teaching is carried out for undergraduate medical students on the problem of substance abuse which is prevalent in more than 30% of the population.¹¹ There is a need to train human resources to impart skills on cessation.¹² Therefore the authors planned to introduce a curriculum in the community medicine postings to address the tobacco and alcohol use disorders keeping in mind the current needs of competency based medical education with the objectives to sensitise medical students regarding the tobacco and alcohol use disorders in the community; to impart the basic training to the students regarding counselling the patients and their family members in a primary care clinic; to study the attitude of the medical students regarding inclusion of topics on alcohol and tobacco use disorders in the Community Medicine curriculum; and to understand the students perspective on this method of teaching.

METHODOLOGY

A Cross-sectional study was conducted from March to December 2014 among third year medical undergraduate students. During the third year of their course, the medical students are posted to the Department of Community Medicine for a month, in five batches of 50 students each. During this posting the students are taken to places of public health importance, trained to present clinico-social cases, and present topic seminars. The session on management of tobacco and alcohol use disorders was introduced during this posting, considering its importance. The faculty from the Department of Community Medicine and Psychiatry jointly planned and organized the sessions. A half-day session on alcohol and tobacco use disorders was conducted once for each of the five batches during the months of June to November, 2014.

It was decided to conduct the session for the group of 25 students to make it interactive and to ensure maximum participation. The sessions on burden of health problems due to tobacco and alcohol use and scales for assessing nicotine and alcohol dependence were taken by faculty from Community Medicine Department while the topics behavioural counselling and pharmacological management were dealt with by the faculty from Department of Psychiatry. Each session was followed by discussion. After these sessions, the students were divided into groups of five and were encouraged to enact a role-play on a case scenario. The scenarios were based on the following four themes: 1) Family issues due to tobacco and alcohol use disorders; 2) Factory workers using tobacco and or/ alcohol; 3) The effect of peer pressure on alcohol/ tobacco use; and 4) Chronic smoker or smokeless tobacco user approaching a primary care physician.

The intention of these case scenarios was to reinforce the counselling skills and the principles of pharmacological management of tobacco and alcohol use disorders. During the role play, the students were keenly observed by the faculty from the Departments of Psychiatry and Community Medicine. Constructive criticism was offered to the students regarding their enactment of the role play. Important observations and suggestions included the necessity for providing privacy to the patient during the interview with the doctor, not being judgemental while dealing with the patient, trying to make the patient himself come out with the problems of substance abuse, evaluating the problems at present, not to forget the physical examination of the patient, encouraging the patient himself to suggest solutions to his/her current problems and reminding him about the follow-up. The students were commended when they did a good job in

bringing out the principles of counselling and were corrected wherever it was felt essential.

The preliminary evaluation was carried out at the end of the session by using an anonymous self-administered questionnaire which included questions to bring out the attitude of the students regarding inclusion of topics on alcohol and tobacco use disorders in the curriculum, and to understand the students' perspective on this method of teaching. All the questions were assessed on a five point Likert scale as follows: 0 - Strongly disagree, 1 - Disagree, 2 - Neither agree nor disagree, 3 - Agree, 4 - Strongly agree. Descriptive statistics was used to describe the data and Chi-square test was used to test significant differences in the responses.

RESULTS

The total numbers of students in third year were 251 and during the period from June to December 2014 a total of 179 (71.3 %) students attended the planned sessions over five set of postings. Among the students who attended the postings, the data was complete for 175 (97.8% of respondents) and were analysed.

Table 1 depicts the student's perception regarding the training and their role in managing tobacco and alcohol use disorders. The results are shown as number and percentage of students who responded as either 'agree' or 'strongly agree'. Majority (95%) of the students agreed as mentioned in the table. However, only 80% of the students felt that the skills would be useful to them during their clinical postings.

The second part of the questionnaire consisted of the student's opinion regarding the teaching methodology. Majority of the students agreed and very few of them disagreed on the statements as mentioned in the following table.

The last part of the questionnaire was open ended to elicit the opinion of the students regarding the session. Out of 175 students, 52 students made comments which are summarised under the following categories: a) Appreciated for planning the session-15 (28.8); b) Good interaction-7 (13.4); c) Role play added to the learning-7 (13.4); d) Shorten the session - 12 (23); and e) Miscellaneous - 11 (21.2). These included comments like such sessions should be planned for other topics also and to incorporate videos on the sessions conducted.

Table 1: Medical Students' attitude regarding the need to develop skills to manage persons with tobacco and alcohol use disorders

Statement	Agree	Strongly agree	Neither agree nor disagree	Disagree	Strongly Disagree
Medical students have to be sensitized about the problem of tobacco and alcohol use	44 (25.1)	123 (70.3)	7 (4.0)	1 (0.6)	0
Medical students should have skills in identifying persons with tobacco and alcohol use	45 (25.7)	126 (72.0)	3 (1.7)	1 (0.6)	0
Medical students should acquire skills to counsel the people with tobacco and alcohol use disorders	49 (28.0)	124 (70.9)	2 (1.1)	0	0
Medical students should counsel patients with tobacco & alcohol use during clinical postings	66 (37.7)	74 (42.3)	28 (16.0)	5 (2.9)	2 (1.1)
Tobacco and alcohol use disorders are major problems currently and in the coming years	46 (23.6)	126 (72.0)	2 (1.1)	0	1 (0.6)

*p<0.01; Figure in parenthesis indicate percentage.

Table 2: Medical Student's opinion regarding the different aspects of the newly introduced session on tobacco and alcohol use disorders

Statement	Agree	Strongly agree	Neither agree nor disagree	Disagree	Strongly Disagree
The faculty used appropriate teaching methodology to sensitize about the topic.	90 (51.4)	63 (36.0)	15 (8.6)	4 (2.3)	3 (1.7)
The resource persons responded to questions in an informative and satisfactory manner.	94 (53.7)	68 (38.9)	9 (5.1)	3 (1.7)	1 (0.6)
Adequate time was provided for questions and discussions.	66 (37.7)	98 (56.0)	8 (4.6)	2 (1.1)	1 (0.6)
The content of Session was well designed and covered all aspects required.	85 (48.6)	69 (39.4)	13 (7.4)	4 (2.3)	3 (1.7)
After this session do you think you have acquired the basic skills needed to manage persons with tobacco and alcohol use disorders	87 (49.7)	49 (28.0)	34 (19.4)	1 (0.6)	3 (1.7)

*p<0.01

DISCUSSION

In the review article by Richmond R,¹³ the author has drawn comparison among different regions of the world regarding the medical curricula and concluded that there is lack of training for medical students in smoking cessation counselling and management skills. Similarly a decade later another review by Chatkin J,¹⁴ has observed similar trends that serious deficiencies does exist in medical curricula regarding the substance use cessation training and also notes that there is lack of proactive approach by doctors in tackling this problem. Thus significant opportunity has been lost in advising patients about quitting substance use which could have led to promotion of health and prevention of various health problems.

In the study conducted by Chandrashekhar T. et al¹⁵ in five Asian countries it was found that one of the important shortcomings among practices of medical students was advising about health effects, counselling and smoking cessation for smokers. According to the authors this may be due to lack of knowledge among medical students about smoking-related diseases and smoking cessation techniques. They concluded by saying that Medical educators should consider revising medical curricula to improve training about tobacco smoking cessation in medical schools. Thus there is a need to modify the curricula based on the needs and problems faced by the society so that future doctors can provide best possible health care.

In the present study, the interactions between faculty and students after each topic followed by the role-play ensured the participation of the students. This type of teaching in substance use disorder has been recommended by other researches that support incorporating interactive teaching methods along with experiential and didactic components.¹⁶

In a study conducted by Peets A¹⁷ et al, involvement of students in medical education by incorporating role plays has proved to improve learning outcomes in different subjects. A similar feedback has been obtained in this study, as most of the students have agreed and appreciated the inclusion of integrated teaching methodology and role play. The student's feedback in this study regarding the role play corroborates with findings of a study carried out in a Malaysian Medical School in which role plays have been used to teach communication skills in primary care medicine¹⁸ and is termed as a smart teaching method known to enhance student's interest in Community Medicine.¹⁹

In a study to assess the student's perception about integrated teaching at a medical college in South India it was observed that 82% of students agreed that this methodology gives better understanding of the

topic and improves performance in clinics and University examination.²⁰ Another study carried out in Western India,²¹ has observed similar results and correlates the findings in the present study. However the negative aspect with all these studies is that some students feel it's lengthy, and hence needs to be addressed for better acceptance of the integrated teaching by the medical students. In a study conducted on small group teaching also, nearly one third of the students gave a feed back to shorten the session.²² Our study findings are encouraging and shows that lesser percentage of students wanted shorter sessions.

The participation of psychiatry faculty in the session served an important role in training programs designed for medical undergraduate students. Although the agreement was > 90% for all the important aspects, comparatively lesser number of students (80%) were in agreement with the statement regarding medical students counselling patients with tobacco and alcohol use disorders. This calls for the faculty to emphasise the medical students on the importance of counselling patients with these disorders.

CONCLUSION AND RECOMMENDATION

The students provided highly positive appraisal regarding the introduction of this session during their postings. The methodology applied was well taken. The interactions after each topic followed by the role-play ensured their participation. There is a need to include such sessions in Community Medicine teaching as it will make the students to comprehend these topics better and at the same time make the learning more interesting. The importance of counselling during patient management can be emphasised and the students will learn its basic principles. As future physicians, similar sessions will empower them better to act at primary and secondary levels of prevention for substance use disorders in the society.

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REFERENCES

1. Association of American Medical Colleges. Report 1: Learning Objectives for Medical Student Education-Guidelines for Medical Schools. Washington DC; 1998; 7.
2. Sood R, Adkoli BV. Medical Education in India - Problems and Prospects. Editorial. Journal of Indian Academy of Clinical Medicine. 2000; 1 (3). 211-2.
3. Gopalakrishnan S, Ganesh KP. Community Medicine Teaching and Evaluation: Scope of Betterment. J Clin Diagn Res. 2015; 9(1): 1-5.

4. International Centre for Drug Policy, St George's University of London. Substance Misuse in the Undergraduate Medical Curriculum. Project Report: Executive Summary. 2012.
5. World health organization. Global health risks: mortality and burden of disease attributable to selected major risks. 2009.
6. Fiore C, Jaén CR, Baker TB, Bailey WC, Benowitz NL, Curry SJ. Treating Tobacco Use and Dependence: 2008 Update.
7. Kaner EF, Beyer F, Dickinson HO, Pienaar E, Campbell F, Schlesinger C. Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database Syst Rev*. 2007.
8. Schuckit MA. Alcohol-use disorders. *Lancet*. 2009; 373 (9662): 492-501
9. Murthy P, Saddichha S. Tobacco cessation services in India: Recent developments and the need for expansion. *Indian Journal of Cancer*. 2010; 47: S69 - S74.
10. Richmond RL, Debono DS, Larcos D, Kehoe L. Worldwide survey of education on tobacco in medical schools. *Tob Control*. 1998; 7:247-52.
11. Medical Council of India. Salient features of regulations on graduate medical education, 1997.
12. Varghese C, Kaur J, Desai NG, Murthy P, Malhotra S, Subbakrishna DK, Prasad VM, Munish VG. Initiating tobacco cessation services in India: Challenges and opportunities. *WHO South East Asia Journal of Public Health*. 2012; 1(2): 159-68.
13. Richmond R. Teaching medical students about tobacco. *Thorax*. 1999; 54:70-8.
14. Chatkin J, Chatkin G. Learning about smoking during medical school: are we still missing opportunities? *Int J Tuberc Lung Dis*. 2009; 13: 429-37.
15. Chandrashekhar T, Sreeramareddy, Sushil S, Ritesh G M, Harsha Kumar HN, Mahbubur R et al. *Subst Abuse Treat Prev Policy*. 2010; 16; 5: 29
16. Polydorou S, Gunderson EW, Levin FR. Training Physicians to Treat Substance Use Disorders. *Current psychiatry reports*. 2008; 10(5): 399-404.
17. Peets AD, Coderre S, Wright B, Jenkins D, Burak K, Leskosky S, McLaughlin K. Involvement in teaching improves learning in medical students: a randomized cross-over study. *BMC Med Educ*. 2009; 9: 55.
18. Sherina HN, Chia YC. Communication skills teaching in primary care medicine. *Medical Journal of Malaysia*. 2002; 57: 74-7.
19. Bogam RR. Twelve Tips to Facilitate Learning in Community Medicine. *Education in Medicine Journal*. 2015; 7(3): e56-e61.
20. Kalpana Kumari MK, Mysorekar VV, Raja S. Student's Perception about Integrated Teaching in an Undergraduate Medical Curriculum. *Journal of Clinical and Diagnostic Research*. 2011; 5(6): 1256-9.
21. Kate MS, Kulkarni UJ, Supe A, Deshmukh YA. Introducing integrated teaching in undergraduate medical Curriculum. *International Journal of Pharma Sciences and Research*. 2010; 1(1): 18-22.
22. Pal R, Kar S, Zaman FA, Jha DK, Pal S. Assessment of impact of small group teaching among students in community medicine. *Indian J Community Med*. 2012; 37:170-3.