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A study of acceptability & feasibility of integrating humanities based study modules in undergraduate curriculum

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***Background & objectives*: The field of medical education in our country remains deeply fragmented and polarised between the biomedical technical domains which are overrepresented and the humanitarian domains which are under-represented within the universe of medical pedagogy. To overcome this imbalance, we designed a module that integrates the two domains in a holistic biomedical and socio-cultural framework with the objective of providing unified field of learning experience to the undergraduate medical students attending rotatory clinical postings in a medical college in New Delhi, India.**

***Methods*: Undergraduate medical students of 6th and 8th semesters were enrolled in humanities based study module (HSM) on voluntary basis for a total duration of six months. During their compulsory rotatory medicine ward posting, they were introduced and exposed to learning bedside experience of HSM with various tools of art and literature in the form of poem, short narratives, paintings, sketches and group discussions to express their feelings about patients' sufferings. Students' feed-back was recorded through an anonymized questionnaire.**

***Result*: Of the 235 students, 223 (95%) enrolled themselves voluntarily and 94 per cent (210 of 223) of them completed the total six month duration of the study module. Seventy three per cent of the students found HSM effective in improving their affective motivational behavior, 82 per cent found it effective in motivating them to learn more about core medical subjects, and 85 per cent wanted its continuation as part of medical curriculum.**

***Interpretation & conclusions*: The positive response of the students towards the HSM was an indicator of the potential for integrating the module within the undergraduate medical curriculum.**

Key words Humanities based study modules - medical humanities

In clinical practice doctors are required to understand patient's emotional and psychological needs while applying scientific knowledge and skills to the patients[1]. Learning medical humanities will help medical students and doctors to understand patient's emotional and psychological needs. With the help of art and literature, medical students and doctors can further develop their observational skills, analytical reasoning and power of imagination[2].

The traditional training of medical students gives very little emphasis on this important aspect. The

importance of teaching medical humanities has not been realized yet[3]. Its integration in undergraduate curriculum still faces criticism as consensus is still required to be developed regarding the content of curriculum, process of teaching and its assessment[4,5]. Though there is no agreed definition of medical humanities, the General Medical Council of United Kingdom defines medical humanities as an international endeavour that draws on creative and intellectual strengths of diverse disciplines, including literature, art, creative writing, drama, film, music, philosophy, ethical decision making, anthropology and history in pursuit of medical educational goals[6].

Humanities related courses have already been integrated in the undergraduate curriculum in various forms in many medical schools of Europe, USA and Australia.[7] It is yet to be developed and introduced in India that has around 310 medical schools with a yearly intake of more than 36,000 students in undergraduate courses[8]. With worldwide experience, where introduction of humanities based study modules have improved students knowledge, attitudes towards patients and self-directed learning[9], we undertook this study to develop, introduce and evaluate the acceptability of medical humanities based study module in our undergraduate (UG) teaching curriculum. The study was designed around three core objectives. First, to develop humanities based study module (HSM) as an educational instrument in UG curriculum; second, to introduce the module as a part of bedside learning experience to the undergraduate medical students attending rotatory clinical posting in a medical college in north India, third, to study the acceptability of study module on the basis of students' feedback.

Material & Methods

The study was conducted from August 1, 2010 to January 31, 2011 in the Department of Medicine of Lady Hardinge Medical College affiliated to Delhi University. Lady Hardinge Medical College is one of the oldest medical colleges of India with annual intake of 130 students in the undergraduate course. The undergraduate students of 6th and 8th semester during their compulsory rotatory ward postings were enrolled on a voluntary basis and introduced to humanities based study module (HSM). Written informed consent was taken from all participants.

HSM was weaved within the clinical matrix of the routine biomedical case presentations done by medical students. The HSM was operationalized during the first 40 min of the clinical case presentation. The HSM unfolded in three sequential stages (Fig.).

(i) Stage of induction: Each new batch was briefed about the HSM by the investigators. In the first session, usually of 40 min, they were made aware of the medical humanities - its scope, necessity and nature of the study module followed by the enrolment that was on voluntary basis. The students were informed that participation in HSM carried no credit points or marks. This was done to eliminate any scope of bias while giving their feedback in the response sheet meant for evaluation of study module.

(ii) Stage of expression and creative work: Subsequently, of the two hours of daily ward posting, initial 40 minutes were devoted for HSM. In the first 15 min, one student narrated the socio-economic, familial, cultural and biographical aspects of the patient's life and deciphered the impact of patient's disease on his/her life. Over the next 25 min all students were asked to participate in the group-discussion centred on the presentation. Special emphasis was made to discuss the impact of patient's illness on his/her personal and social domains. During the discussion, students were asked to express their feelings about patient's suffering through their own creations by making use of short narratives, stories, poems, sketches, painting and posters. Depending on the level of participation, students were divided into 3 groups: group 1: active performers who volunteered in the study by developing their own creations in the form of poem, short story, poster, sketches and cartoons; group 2 - active participants who participated actively in the group discussion apart from active listening; and group 3 - passive listeners who remained silent during the group discussions and remained listeners only.

(iii) Stage of feedback and evaluation: Evaluation was done at two levels. During each session, students were observed by the investigators and their group behaviour such as the number of students active in each group, nature of activities, level of participation, core issues raised, *etc*. was noted. At the end of each session, students were given an anonymized questionnaire for feedback. The questionnaire-cum-student Feed back sheet was designed in three parts. Part A assessed their group behaviour and the mode of participation. Part B had questions to get their feedback on HSM, and Part C was meant to get their suggestions relevant to this topic. The correlation between the three groups of participants and their feedback regarding the effect of HSM on their affective- motivational domain was studied by reviewing their response sheet at the end of the study

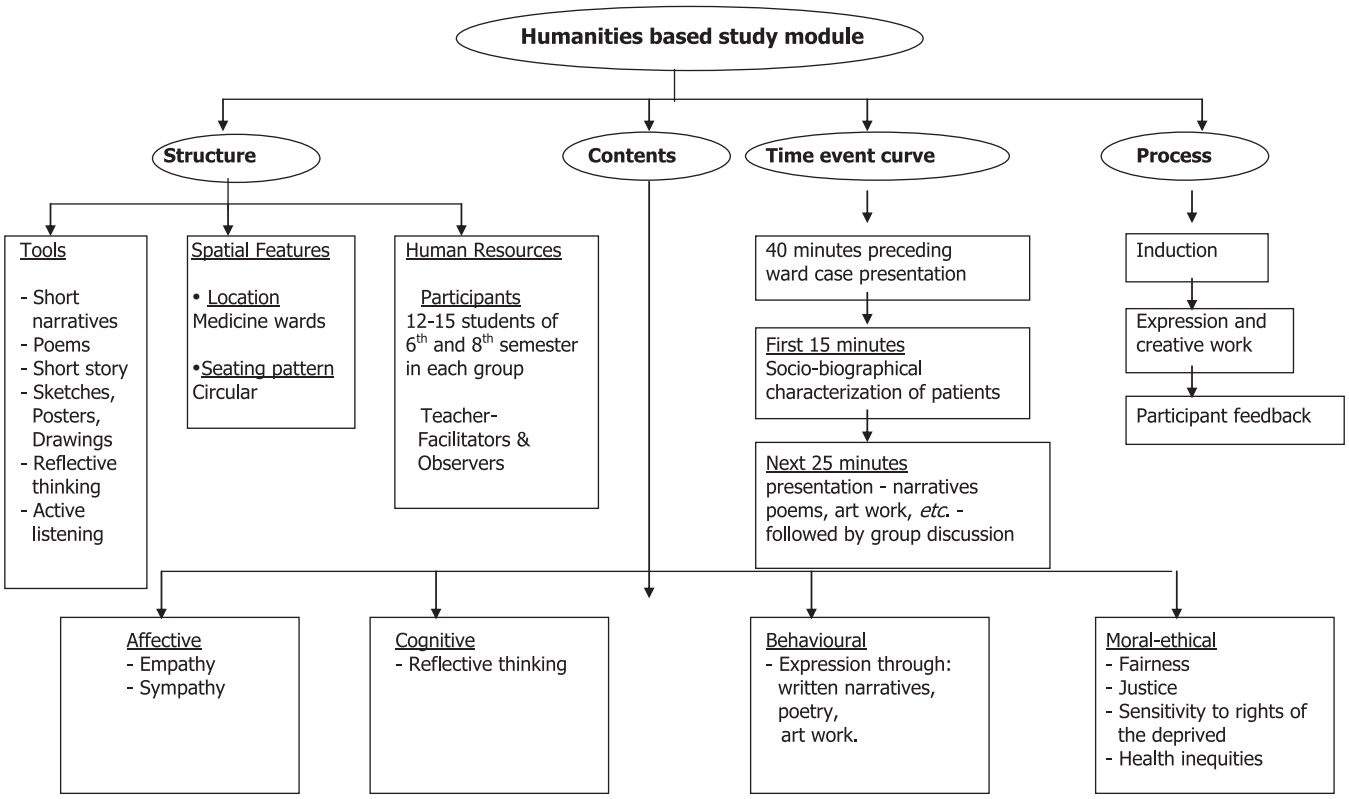

Fig. Framework design of humanity based study module (HSM) used in the study.

.The consistency between different batches of students attending this module was maintained by ensuring that the same core team of teacher-facilitator anchored various sessions. They tried to maintain uniform frame of the discussions in the various sessions.

Results

The total number of students of 6th and 8th semester who attended clinical classes during the study period was 235 and HSM was offered to all of them. Of them, 223 (95%) initially enrolled themselves in the study. 210 (94%) completed the study module and 13 (6%) left the study in between. Of the 210 students who completed the study, 100 (48%) were from 6th semester and 110 (52%) from 8th semester. Of the 210 students who completed humanities based study module (HSM), 138 (66%) expressed their views in group discussions only; 55 (26%) students remained as passive listeners while 7 (8%) expressed their views and emotions by means of their own active creations.

The students' acceptability and feasibility of HSM was assessed by a set of three questions. While 73 per cent of the students perceived a definite positive change in their affective behaviour towards their patients, 82 per cent found themselves more motivated to do in-depth reading focussed on the concerned patient's disease and 85 per cent of the students wanted the HSM to be continued in the future teaching- learning activities (Table I). It was observed that among the three groups structured around the level of participation in the HSM activities, the groups displaying a more active participation displayed a greater magnitude of improvement in their affective-motivational and learning behaviours towards their patients.

The students' assessment of the design and the working of the HSM measured on a subjective rating scale of 0-3 is summarized in Table II. Broadly, two-third of the students have found the HSM effective (moderate or greater) in improving their affective-motivational performance.

Discussion

Medical humanities based programmes are common in the medical schools of United States, Australia and Europe either as a part of the curriculum or as a voluntary module[7,10]. However, the concept of medical humanities is relatively new to Asia. Humanities based study sessions have been conducted

Table I. Students feedback about HSM

Questions	Students groups							
	Group1 (n=17) Active performers		Group 2 (n=138) Active participants		Group 3 (n=53) Passive listeners		Total (n=210)	
	Yes	No	Yes	No	Yes	No	Yes	No
After participating in HSM, did you find any change in affective behaviour *i.e.* empathy towards your patients?	17 (100)	00	120 (87)	18 (13)	15 (27)	40 (73)	152 (73)	58 (27)
After participating in HSM, did you feel motivated to read up more about the chapters related to patient's disease?	16 (94)	01 (6)	127 (92)	11 (8)	30 (55)	25 (45)	173 (82)	37 (18)
Do you want the activity (HSM) to be continued in future?	16 (94)	01 (6)	128 (92)	10 (8)	34 (62)	21 (38)	178 (85)	32 (15)

Figures in parentheses are percentages

at Manipal College of Medical Sciences, Pokhara and KIST Medical College, Lalitpur in Nepal where efforts are being made to develop it slowly[11]. Medical humanities based programmes are largely unknown in most of the medical schools and institutions in India[10].

In India, its importance is now being recognized and several authors have highlighted its role in medical education has been highlighted[10,12]. A medical humanities group has been formed in the University College of Medical Sciences, Delhi, with the aim to develop this discipline and practice it amongst health care providers by means of lectures and street plays[10,13,14].

In our study module, students were encouraged to use various forms of art (sketching and painting) and literature (stories, poems and short narratives) to reflect on socio-economic, familial and cultural aspects of the patient's life. HSM was offered to 235 students of 6th and 8th semester. Of the, 223 students enrolled in the study, 94 per cent completed the total duration of study module. Overall, nearly three-fourth of them perceived a significant improvement across all the three domains. The design and the working of the HSM was also rated by nearly two-thirds of the students as being effective in enhancing their affective-motivational performance. The affective-motivational state refers to a complex of affective state which embodies response parameters such as empathy and sympathy towards the patient's human condition and the motivational state which encompasses the behavioural response directed towards the increased desire focussed on learning and patient care. As in other parts of the world[15], our study module was readily accepted by the students. In this teaching programme, which was mostly based upon interactive sessions, students mostly opted to take part in group discussions.

Table II. Students' rating about humanities based study module (HSM)

Scale (0-3)	Overall (n=210)	Group 1 (n=17)	Group 2 (n=138)	Group 3 (n=55)
0- No effect	20 (10)	0	1 (0.7)	19 (34)
1- Mildly effective	48 (23)	1 (6)	25 (18)	22 (40)
2- Moderately effective	98 (47)	2 (12)	83 (60)	13 (24)
3- Very effective	44 (20)	14 (82)	29 (21)	1 (2)

Figures in parentheses are percentages

It has been found that the medical students read widely beyond their course including fiction and biography[16]. Literature in all its forms has got the ability to affect human emotions and behaviours and help in developing empathy and imaginative power[17,18]. Through vivid descriptions of illness, death and human suffering it provides a virtual experience of the patient's affective state and thus helps in achieving the goal of making more humane doctors[19,20]. Besides, this literature can be used to inculcate ethical values[21]. Paintings and sketches enhance one's power of perception and imagination[22,23]. Besides, it has a role in developing medical student's observational and pattern recognition skills[24]. In a study at KIST Medical college, Nepal,

first year medical students were introduced to medical humanities with the use of paintings which evoked positive responses[25]. Study modules used in medical schools of Greece have incorporated philosophy, ethics, theology, social sciences and history apart from art and literature[6]. Centre for Medical Humanities, England, used drama, film and creative writing apart from practical arts and literatures in their study module for teaching medical humanities to undergraduate students[6,20].

Medical students are always under immense pressure to attain biomedical knowledge and skill in core subjects within given time but neglecting the importance of medical humanities increases the likelihood of a dehumanized technical approach with concomitant loss of sensitivity to the human condition in medical practice[26-28].

This study has several limitations. Firstly, the study was primarily designed to determine the feasibility and acceptability of humanities based study module (HSM) and it was not adequately structured to measure its effectiveness in improving health care delivery outcome. Studies with case-control design measuring perception and outcome assessment of all the three actors *viz*. the students, the teachers and the patients will be required. Employing structured measurement scales for parameters such as empathy, sympathy, patient satisfaction and above all the qualitative change in the doctor-patient relationship as a consequence would be an integral part of such studies. Secondly, the study population was restricted to the volunteers. So, the possibility of volunteer bias compromising its "external validity" cannot be ruled out. However, the value of this study lies in it being a pilot study with a descriptive observational design which mapped the affective-motivational domains of the medical students. More robustly designed, multi-centric study would form next logical step to enhance the external validity of the humanities based study module.

In conclusion, some broad conclusions were drawn on this important domain of the student's subjective assessment of this module's effectiveness. Firstly, a positive change in their affective behaviour towards the patients was observed in 73 per cent students. Secondly, an improvement in the motivation for enhanced learning focussed on their patient's illness was reported by 82 per cent students. Thirdly, an indirect surrogate hint at the positive motivational change induced by HSM was located in their response to the question whether they wanted the module to be continued in future. Fourthly, an important finding was an improvement in affective motivational performance among those who had displayed a higher level of participation. This suggests the need to design and develop newer teaching methods that would motivate students to be active participants rather than remain passive listeners. Thus, the introduction of humanities based study module integrated with bedside clinical teaching in the undergraduate curriculum may be both feasible and acceptable to the students. Further studies need to be done with robust design in different parts of the country to confirm these findings.

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