

Medical Education

Learning medical sociology through an innovative 'Elective study module' integrating humanities with medicine for undergraduate students of a medical college in Bengaluru, India

NISHA GOMES, VIDYA HARIKUMAR, JAMES JOSEPH, APARNA MOHAPATRA, AMAL RAI, SIDDHARTH SENTHIL, NAMITHA VARUGHESE, PREM MONY

ABSTRACT

Background. The newly introduced 'Elective programme', a voluntary special study module in the final phase of the undergraduate medical curriculum, offers scope for new immersive, self-directed learning opportunities. We describe a programme of study for learning 'medical sociology' through the innovative use of humanities in medicine.

Methods. Our elective module, called 'Community Health and Rock Music' (CHaRM), was a 2-week programme, merging the curricular subject of community health with 'rock music' as an exposure to the 'counter-culture' outside of the medical world. The half-day sessions consisted of: (i) watching/listening to a rock song-video without reading its lyrics; (ii) listening to the same song again but with lyrics; (iii) undertaking an emotionally stimulating activity (watching a movie, making a site-visit, etc.); and (iv) debriefing, to identify/discuss the underlying social determinants of health and their relevance in the grooming of a socially aware medical student. Formative assessment was intended to gauge levels of expression of the affective domain (attitude/emotions).

Results. Seven of 143 students volunteered for this programme. Key learnings were a clear appreciation of the societal determinants of health (such as deprivation/discrimination/social structures); multi-level causation of diseases; social issues not addressed in traditional medical curriculum; personal growth; teamwork; and the role of empathy in medical practice. Additional learning was the exposure to the 'counter-culture of arts'. All 7 student assessments 'met expectation', with 4 of them 'exceeding expectation'.

Conclusion. An 'elective programme' combining humanities with medicine is potentially an innovative, student-centric and replicable model of learning that impacts the affective domain critical for doctors-in-training.

Natl Med J India 2024;37:205–8

INTRODUCTION

A key to transforming medical education for the 21st century has been the proposal to move from 'informative learning' to 'formative learning'; while informative learning is about acquiring knowledge and skills with the purpose of producing 'experts', formative learning is about equipping students with values (in addition to knowledge and skills) with an aim to produce 'professionals'.¹ While the knowledge and skills domains of learning remain the focus areas of undergraduate medical education currently, teaching on affective domain relating to attitude and emotions² remains suboptimal, being mostly taught as a 'hidden agenda' of medical schools by facilitating learning from role-models. Of late, the National Medical Commission has initiated efforts to make it more explicit by introducing mandatory 'Attitude, Ethics and Communication' (AETCOM) training for all medical students.³ In 2023, the introduction of an elective programme—a special study module that is voluntarily chosen by the medical student—provides an opportunity to offer a supervised, immersive and self-directed learning experience in basic/laboratory/clinical sciences. We describe our experience with a programme of study in 'medical sociology' (defined as the study of social patterning of health) through innovative use of humanities in medicine. The objectives were to explore the role of social determinants in health (primary objective) and to explore the role of music artists in raising awareness about issues related to societal well-being (secondary objective).

METHODS

The DoCTRINE (Defined Criteria To Report Innovation in Education) reporting guidelines were adhered to in the drafting of this manuscript.⁴ Our elective module, called 'Community Health and Rock Music' (CHaRM), was a 2-week training programme between the pre-final and final years of study. It was proposed to the office of the Vice-Dean in 2022 by the faculty (PM) with the rationale of community health being a regular subject within the MBBS curriculum while 'rock music' (defined as a kind of music with a heavy beat that is played and sung, usually loudly, by a small group of people)⁵ would be an exposure to the 'counter-culture' outside of the medical world.⁶ This was approved by the Vice-Dean's Screening Committee and the module was offered over two weeks in March 2023 as an afternoons-only programme.

On day 1 of the programme, students were introduced to the broad domains of learning² and the purpose of the elective

St John's Research Institute, St John's Medical College, Koramangala, Bengaluru 560034, Karnataka, India
NISHA GOMES, VIDYA HARIKUMAR, JAMES JOSEPH, APARNA MOHAPATRA, AMAL RAI, SIDDHARTH SENTHIL, NAMITHA VARUGHESE, PREM MONY

Correspondence to PREM MONY; premkmony@gmail.com

[To cite: Gomes N, Harikumar V, Joseph J, Mohapatra A, Rai A, Senthil S, et al. Learning medical sociology through an innovative 'Elective study module' integrating humanities with medicine for undergraduate students of a medical college in Bengaluru, India. *Natl Med J India* 2024;37:205–8. DOI: 10.25259/NMJ1_893_2023.]

© The National Medical Journal of India 2024

programme. They were then asked to answer questions as to the aetiology of common morbid conditions seen often during clinical postings: the cause of tuberculosis, and malnutrition in children. They were then taught to illustrate these figuratively as follows: *Mycobacterium tuberculosis* (cause) → tuberculosis (effect), and inadequate protein–calorie intake (cause) → protein energy malnutrition (effect). Last, they were challenged to keep their minds open as to how these simple linear illustrations would be redrawn differently by the end of the programme. To encourage active participation in the debriefing sessions, the early ‘ice-breaker’ discussion centred around individual student hobbies and its meaning to each one of them personally.

Teaching–learning method

The requirements included the following: a sound-proof room, a laptop/mobile, wifi/internet connectivity, YouTube® access and speakers; and a vehicle for local travel. The 3–4-hour class was structured in the following sequence: (i) watch/listen to the song-video without lyrics; (ii) listen to the same song with lyrics; (iii) undertake an emotionally stimulating special activity (watch a movie, make a site visit, etc.), followed by (iv) debriefing to unearth the themes addressed in the song, discuss relevance to individual health and community health, dwell at length on how it could potentially affect learning and development of a medical professional, and lastly (v) what could one do as a future doctor based on this learning.

The world of rock music is replete with various subjects related to medicine. The social themes and the related songs covered included: deprivation (*The Ghost of Tom Joad* by Bruce Springsteen);⁷ discrimination (*Run to the hills* by Iron Maiden);⁸ broken families (*Confessions* by Lindsay Lohan and *Blurry* by Puddle of Mudd);^{9,10} child abuse (*Luka* by Suzanne Vega);¹¹ commercial sex work (*Turn the page* by Metallica);¹² and rehabilitation (*Rock Brigade* and *Hysteria* by Def Leppard)¹³ (Table I).

Following this opening act of infotainment value, we undertook a specific activity such as watching a movie related to the theme¹⁴ or undertaking a site visit (to an urban slum for a walk-through, or a neighbourhood to ‘clandestinely chat with manual scavengers’ [the latter being a banned activity], or visit a mental health clinic for ‘case-based’ discussion, or meet with a priest to discuss about conception and value of life) and then returned to the classroom for debriefing.

In the debriefing, the discussions for each topic centred on issues such as ‘deprivation as opposed to poverty’, diseases linked to poverty, organization of healthcare, healthcare and impoverishment; discrimination; caste and occupation; social

issues (e.g. manual scavenging, broken families, commercial sex work, etc.) and rehabilitation (Table I). After identifying these factors as being present prior to the start of the stated biomedical ‘cause’ of the disease, it was then possible to list ‘risk factors’ and then classify them as ‘proximal or distal’ determinants of health. This was then followed up with a discussion on the optimal epidemiological research designs to study the aetiology of diseases. Finally, the epidemiological approach to measuring disease burden (prevalence and incidence), role of risk factors, causation versus association, and measures such as relative risk and attributable risk were covered briefly. The fact that 7 of 143 students in this batch had chosen this elective was also used to calculate a proportion (4.9% or 0.049) and show how a related concept of ‘p value <0.05’ is routinely used in medical statistics was also touched upon.

Assessment

Formative assessment was intended to gauge levels of expression of the affective domain (attitude and emotions). The students were encouraged to go back and reflect and then make entries in their ‘personal portfolio’ as to how the session had impacted them and what it meant to them as a doctor-in-training. Thematic analysis of these narratives was undertaken to grade them as belonging to one of three possible categories: exceeds expectation—E.E.; meets expectation—M.E.; or below expectation—B.E.; guided by Bloom’s taxonomy—‘receiving’ and ‘responding’ was graded as meeting expectation (M.E.), while ‘valuing’, ‘organizing’ and ‘characterization’ was graded as exceeding expectation (E.E.).²

RESULTS AND DISCUSSION

Seven (4 girls and 3 boys) of 143 students who were offered a range of elective options volunteered for this elective programme. The main reasons cited for taking up this elective were its uniqueness or the student’s personal interest in music (Table II).

The advantage of viewing the music video (with or without lyrics) was that the skilled artiste(s) was/were able to grab our attention immediately, arouse our sympathy and get us involved with the characters that were being portrayed. The discussions that followed the viewing of the music video followed by the specific activity (either a field visit or a clinic visit) helped challenge the students to think through and come up with their own interpretations regarding the characters or situations. It also helped identify hidden prejudices, which are difficult to acknowledge in a typical classroom setting with the regular human biology subjects in the medical curriculum. This is

TABLE I. Social issues, special activity and discussion points

Theme (song)	Activity	Discussion points
Deprivation/poverty (1 song, 2 versions)	Watching Italian post-world war II black and white film with English subtitles; visit to a slum clinic	Poverty cut-off; absolute v. relative poverty; health economics; pharmaco-economics; low-cost healthcare
Discrimination (1 song)	Meeting a faecal sludge operator; Zoom call with a former postgraduate student whose research was on scavenging	Caste and village structure; caste and occupation (e.g. manual scavenging, etc.); social structures and disease
Broken families (2 songs by 2 different bands)	Two clinical vignettes discussion in psychiatry department	Parental neglect; divorce; child/adolescent mental health
Child abuse (1 song)	Classroom discussion	Social taboos; under-reporting
Commercial sex work (1 song)	Classroom discussion	Social taboos
Rehabilitation (2 songs by 1 band)	Classroom discussion	Physical/emotional/social needs; ‘care’ v. ‘cure’

TABLE II. Domains and descriptions of feedback from students

Domain/topic	Discussion points/portfolio entries
Reasons for taking up this elective	<ul style="list-style-type: none"> - unique - my passion for music - curious - extremely intriguing to find out how health can be understood through the use of art, specifically rock music, as I'm a music fanatic
Process of learning	<ul style="list-style-type: none"> - balance of formal and informal - refreshing to freely voice our opinions and doubts and learn in a more hands on way with freedom of our own thoughts - case-based learning - practical and reality-based - refreshing to see the problems that we read upon and made it feel more real and personalized- rock music made all these (issues) tragic but the realities more palatable and personalized - ardent discussions (facilitated) on socially taboo topics and social problems
Lessons learnt	<ul style="list-style-type: none"> - how our understanding of community health evolved through the various activities; cleaning toilets just because they are born in lower caste - conventional concept of diseases being something caused by a specific pathogen is superseded now - social factors other than just the pathogen causing the disease was a huge change from day 1 thought process - am personally...amazed how in a span of 10 days my thought process and approach to think about a disease has changed - some problems can often be a secret we may not even be aware of - struggling to provide for children even though it (commercial sex work) is perceived as inappropriate and cheap
Feedback for future	<ul style="list-style-type: none"> - duration of posting just right...not too long or too short - could be full day instead of half day...for travel to sites out of hospital - keep it as amazing mix of fun, learning and practical experience
Causal thinking in health	<ul style="list-style-type: none"> - at the start of elective posting: <ul style="list-style-type: none"> ✓ Causative organism → disease - by end of elective posting: <ul style="list-style-type: none"> ✓ Proximate determinants → Causative agent(s) → Disease ✓ Distal determinants → Proximal determinants → Causative agent(s) → Disease

All music videos, lyrics and movies were used as per fair use convention for non-profit teaching purposes only

referred to as the 'instrumental purpose' of the use of arts/humanities in medicine.¹⁵

The second message conveyed through this teaching-learning method was an exposure to the 'counter-culture of arts'. Given that medical college entrance requirements ensure that typically the academically smart students from schools are the ones who enter medical college, several students may grow up thinking themselves to be superior. The rigour of the medical course curriculum and the separation of the medical college from the main university system in India also ensure an insular training removed from the rest of the 'outside world'.¹⁵ This elective course helped expose medical students to the unique ability of music artistes to communicate important social issues through interesting storytelling by use of lyrics and videos, in a way that is not possible through traditional teaching using medical textbooks, especially for complex social determinants of health.

The students submitted personal portfolios that were 500 to 800-word reports: 5 were handwritten and 2 were typed. Their feedback on the 'process of learning' appreciated the balance of formal and informal interactions in the class; the refreshing approach to studying social determinants of health, sociology and epidemiology; use of case-based learning; the practical and reality-based learning along with the ardent discussions on socially taboo topics and social problems that made it feel very personal. The verbatim reports are given in Table II.

Key lessons learnt were reported as a clear appreciation of

social factors as determinants of health; multifactorial causation of diseases; hidden issues not taught in traditional medical curriculum that could be covered in such an elective module; personal growth in a short span of time; importance of teamwork; and importance of empathy in being a better doctor and offering holistic care (Table II).

Important feedback for future offerings were also provided with regard to total duration, structure of class, and to continue the elective with its optimal mix of academics and fun (Table II).

All 7 student assessments 'met expectation', with 4 of them being graded as 'exceeding expectation'. This was based mainly on reflective narratives—those that had descriptions of the day-to-day activities were graded as 'meeting expectation' while those that had descriptions detailing how it was a transformative experience for them with details of what values or thought processes were challenged within them were graded as 'exceeding expectation'. Similarly, participation in verbal discussions or sharing social media posts relating to social determinants of health outside of class timing were also graded as 'exceeding expectation'.

A few limitations of such an elective posting are highlighted here. First, it is acknowledged that rock music may not appeal to several teachers or students. However, this can be replaced with folk music, theatre or book-reading as the art form that can be used to teach relevant aspects of social medicine. However, the main objective in our programme was to use the energy and angst associated with rock music to raise concern about

'structural violence', which is violence exerted systematically (though indirectly) by everyone who belongs to a certain social order and is participant to maintaining that order.¹⁶ In addition, while undertaking the assessment there is the need to admit that there are inherent difficulties in assessing higher-order imbibing and internalization of the learning of health determinants in such a course. For the student, personal portfolio is only a self-report of participation and learning in the short-term; it does not capture the effect of this course on their long-term behaviour and impact;¹⁷ further, it is dependent on written expressive skills. For the assessor, inherent subjectivity remains a major concern.

In summary, this innovative elective posting provided an exposure for the students to medical sociology, wherein they learnt voluntarily in an immersive, fun and non-patronizing manner on how social factors (e.g. caste, class, gender, religion, educational status, age, etc.) influence human health. It also provided an opportunity to understand basic social epidemiology; that is, how these social-structural factors affect health and how to quantify the burden of disease and measure of association between risk factors and disease outcomes. Further, the students were made aware of how those in the field of arts raise concerns about social issues. For the elective course to be deemed useful, it should move from informative to formative to transformative learning.¹ This is an innovative, experiential, student-centric, replicable and scalable model of learning that may help in making better, more empathetic doctors.

REFERENCES

- 1 Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, *et al.* Health professionals for a new century: Transforming education to strengthen health systems in an interdependent world. *Lancet* 2010;**376**:1923–58.
- 2 Bloom BS. *Taxonomy of educational objectives: Handbook I, Cognitive domain*. New York, NY:Longman; 1956.
- 3 Medical Council of India. Attitude, Ethics and Communication (AETCOM) Competencies for the Indian Medical Graduate. MC1, 2018. New Delhi, India. Available at www.nmc.org.in/wp-content/uploads/2020/01/AETCOM_book.pdf (accessed on 11 Mar 2023).
- 4 Blanco M, Prunuske J, DiCorcia M, Learman LA, Mutcherson B, Huang GC. The DoCTRINE guidelines: Defined criteria to report innovations in education. *Acad Med* 2022;**97**:689–95.
- 5 What is rock? Encyclopaedia Britannica. Available at www.britannica.com/art/rock-music (accessed on 4 Apr 2023).
- 6 Whiteley S. Counterculture: The classical view. In: Wright JD (ed). *International Encyclopedia of the Social and Behavioral Sciences*. 2nd ed. Amsterdam:Elsevier; 2015:80–6.
- 7 Springsteen B. The ghost of Tom Joad. 1995. © Columbia Records
- 8 Harris S. Run to the Hills. 1982 © Iron Maiden Holdings Ltd
- 9 Lohan L. Confessions of a broken heart (daughter to father). 2005 © Universal Records
- 10 Scantlin W. Blurry. 2001 © Geffen Records
- 11 Vega S. Luka 1987 © A&M Records Inc.
- 12 Seger B. Turn the page. 1971. © Gear Publishing Co. Inc.
- 13 Clark S, Elliott J. Rock brigade and Hysteria. 1980 & 1987. © Mercury Records
- 14 De Sica V. Bicycle thieves (*Ladri di biciclette*). Produzioni De Sica. Italy. 1948.
- 15 Macnaughton J. The humanities in medical education: Context, outcome and structures. *J Med Ethics: Medical Humanities* 2000;**26**:23–30.
- 16 Farmer P. An anthropology of structural violence. *Curr Anthropol* 2004;**45**:1.
- 17 Kirkpatrick DI. Evaluation of training. In: Craig R, Bittel I (ed). *Training and development handbook*. New York, NY:McGraw-Hill; 1967.