

# Students' Perceptions Of The Use Of Dramatics In Medical Education: Early Explorations

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## Abstract

**Background & objectives:** By introducing a novel methodology that combines medical education with dramatics, medical and non-medical health professional students are able to learn and understand concepts in a more experiential and entertaining manner. This process is termed medical theatre. **Methods:** Two structured medical theatre workshops were conducted between May and June 2011 for 56 medical and nursing undergraduate students. The facilitators included doctors and professional theatre artists. During the workshop, the students were exposed to the basics of theatre and script writing skills. The process of a converting a medical topic into various forms of theatrical outcomes was then demonstrated. The students then chose a medical topic and implemented the medical theatre process. The workshop concluded with a student performance of two pre-written scripts where they experienced an event of fun with learning. **Results:** 92% (1<sup>st</sup> workshop) and 96% (2<sup>nd</sup> workshop) of the participants found the methodology extremely useful with respect to understanding the topics. All participants enjoyed the medical theatre experience. More than 85% of the students felt that this methodology should be included in the medical curriculum in an appropriate form. **Interpretation and conclusion:** This article highlights the introduction of an innovative teaching methodology that aims to teach medical topics using theatrical methods. The initial exposure of medical theatre was well accepted by the participants. This methodology, however, is not a substitute for conventional teaching and learning methods in every subject area. It does, however, provide an alternate option to learn medical topics in a unique manner.

## INTRODUCTION

The medical curriculum comprises a vast database of information that a student needs to understand and apply in order to complete the medical training. This takes 5-7 years for an undergraduate in various medical institutions across the world. For these reasons, medical education is typically viewed as a long and tedious journey (1,2).

Medical education tends to build mental stress and pressure in students to complete the entire curriculum in a defined period of time. This encourages rote based learning in preference to application based learning methods. Such tendencies towards superficial approaches requiring lower levels of cognitive processing results in the ability to reproduce material in examination without necessarily understanding it (1,2). Students not able to cope with the curriculum often become depressed, under-confident and may also resort to extreme measures such as suicide (2).

Dramatic forms of skits, puppetry, dance forms and street plays have been popular amongst children and adults universally (3,4). Surveys have shown that events associated

with an emotional component are easier to recollect compared to reading educational information from a book (4).

Medical theatre invokes learning while creating a theatrical outcome from a selected medical content. The outcome could be a story, script for a play, poem, song, game, narration/monologue, group activity, cartoon, comic, clinical scenario or a role play. The content and the discretion of the individual decide the nature of the outcome. This process would automatically involve reading and understanding the medical content first.

Here we present our first attempt at combining medical education with theatrical methods to create an innovative process that allows medical and non-medical students to learn and understand medical concepts.

## MATERIALS AND METHODS

**Type of Intervention:** Since the concept revolves around individual participation as a means for effective learning, an intervention in the form of a one day workshop was

considered appropriate. Subsequent workshops conducted in the same institution were structured similarly. The content was entirely new in each workshop to allow repeat participants to learn new topics.

Number of Participants:

Workshop 1 included 23 participants, comprising medical students from different years.

Workshop 2 included 23 participants comprising nursing students from different years. Of these 23, 10 were repeat participants from workshop 1.

Facilitators:

Both workshops were conducted by 3 facilitators which included a medical doctor with background in dramatics and two trained theatre professionals. The theatre professionals conducted sessions on theatre games, basics of script writing and direction of the theatrical outcome which in most, cases was a short play. The core medical content-related sessions were conducted by the medical doctor. This included converting a medical topic into a story and finally into a script. In addition, two guest doctors were invited to facilitate sessions on use of role play and humor in medical education.

Content:

Workshop 1 covered 4 medical topics:

Workshop 2 covered 6 medical topics:

Methodology:

Both these workshops were conducted between May and June 2011 in a teaching medical institute for medical and nursing students. The workshops were designed to combine learning of medical content and the basics of theatre in the same intervention. The workshop included the following:

The structure of the two workshops is listed in Appendices 1 and 2.

Assessment of the workshops

We used four measures of assessment in the workshops

Pre-workshop and post-workshop assessment forms (Figures 1 and 2). The forms were filled by the candidates and submitted before and after the workshops.

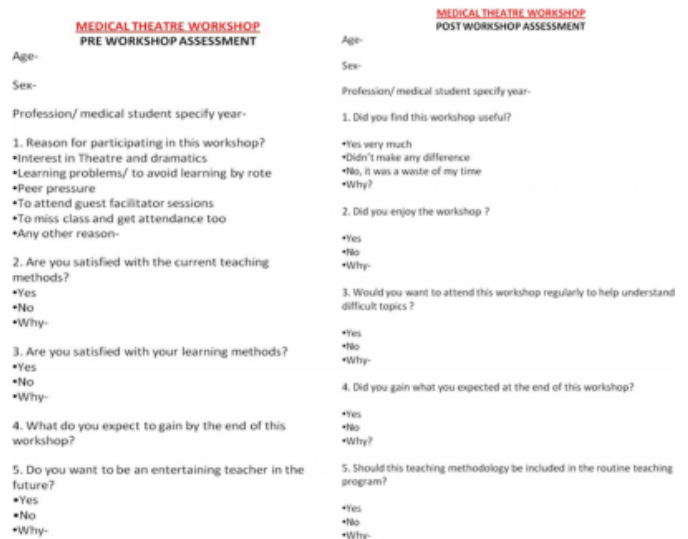
Video documentation of the entire intervention was recorded

At the end of the workshop, a one hour 'de-briefing' session was carried out. Here each participant shared their experiences and gave their individual feedback (also video documented).

Each candidate submitted their script/story which was compiled into a book as a documentation of the outcomes created by these students (Figure 3). The content created and submitted by the students was used as pre-written scripts in subsequent workshops. Students were also awarded the best scripts award for their efforts.

**Figure 1**

Figure 1 and Figure 2: Pre and post assessment forms



**Figure 2**

Figure 3 – An example of the theatrical outcome by a participant of Workshop 1. An anatomical topic about Shoulder Movements has been converted to a poem.

**The groovy shoulder**

When one flexes the arm at the shoulder joint  
 There is one small joint  
 Which you must remember  
 Whether it is July or November  
 There is a gamble of two muscles  
 Pectoralis major and anterior deltoid in the tussels.

To Teres major, Latissimus dorsi was happily married  
 But while extending, these got joined with posterior deltoid

In adduction of course,  
 The joint decided a better course  
 It went with two majors (pectoralis major and Teres major)  
 On the way they stopped for some gazers

The two majors danced with subscapularis during medial rotation  
 Even anterior deltoid and latissimus dorsi soon joined the happy flirtation.

If one wants the joints to laterally rotate  
 Then there is difference in the mate  
 Posterior deltoid dances with infraspinatus  
 Even teres minor comes and triangulates

When just abduction is desired  
 Supraspinatus and mid-deltoid are required  
 But if kapil dev has to do the bowling  
 Come trapezius and serratus anterior following

Small muscles provide stability  
 Large ones give it mobility  
 And shoulder joint dances  
 Dances and dances.

The study was done with the verbal consent of all participants. However the institution St. Johns Medical Hospital where the study was conducted did not require ethical approval for a study of this type.

**RESULTS**

The summary of the results of the pre and post-assessment surveys are presented in Table 1 and 2. The first workshop was a 1 day intervention conducted for 23 undergraduate medical students. The second workshop was a 2 day intervention conducted for 23 undergraduate nursing students and 10 undergraduate medical students.

**Figure 3**

Table 1: Results of the pre-assessment survey for Workshop 1 and 2

|   | Workshop 1 (n=23) | Workshop 2 (n=33) |
|---|-------------------|-------------------|
| <b>Reasons for attending this workshop</b>    |                   |                   |
| To attend guest facilitator sessions          | 40%               | 62%               |
| Due to learning difficulties                  | 32%               | 25%               |
| Due to peer pressure                          | 18%               | 10%               |
| Out of curiosity                              | 10%               | 3%                |
| <b>Satisfaction with teaching methodology</b> | 63%               | 76%               |
| <b>Satisfaction with learning methodology</b> | 27%               | 24%               |
| <b>Gain from attending this workshop</b>      |                   |                   |
| To learn methods to avoid rote learning       | 80%               | 87%               |
| Have a good time and make friends             | 20%               | 13%               |
| <b>Want to become an entertaining teacher</b> |                   |                   |
| Yes to become entertaining teachers           | 73%               | 79%               |
| Not interested in teaching profession         | 27%               | 21%               |

**Figure 4**

Table 2: Results of the post-assessment survey for Workshop 1 and 2

|  | Workshop 1 (n=23) | Workshop 2 (n=33) |
|--|-------------------|-------------------|
| <b>Usefulness of the workshop</b>                          |                   |                   |
| Yes found it useful  | 92%               | 96%               |
| Prefer straightforward reading to learn                    | 8%                | 4%                |
| <b>Enjoyed the workshop</b>                                | 100%              | 100%              |
| <b>Attend subsequent workshops</b>                         |                   |                   |
| Regularly  | 58%               | 69%               |
| Attend it occasionally                                     | 42%               | 31%               |
| <b>Got what they expected from the workshop</b>            |                   |                   |
| Yes  | 92%               | 96%               |
| Expected more medical topics to be covered                 | 8%                | 4%                |
| <b>Medical theatre included in the teaching curriculum</b> |                   |                   |
| Yes  | 85%               | 89%               |
| No   | 15%               | 11%               |

Video De-briefing summary:

At the end of each workshop, qualitative feedback was gathered from the participants. Positive comments included: “Creative thought processes were challenged,” “Learnt a new way to understand and learn,” “Learning medicine appeared easier and entertaining,” “Remembering and recollection was easier,” and “Enjoyed the process and interacted with students from different batches.”

Negative comments included: “Need for more demonstrations of how a topic is made into a story,” “More topics need to be covered,” and “Some students felt overloaded and tired.” In addition, some students suggested

a two-day workshop.

Changes Implemented in second workshop based on feedback from the first workshop:

In view of the negative feedback received, the subsequent workshop was converted into a two day intervention with more topics included. The performances were kept on the second day in order to avoid content overloading. There were two performances instead of one by dividing the group into two.

### **DISCUSSION**

This study explored the potential of a new teaching method. We designed a workshop to integrate medical topics with theatrical methods. We then implemented this conceptual model called medical theatre in the 2 workshops conducted. The students' perspectives of learning using medical theatre were surveyed.

Our survey suggests that all participants enjoyed the process of learning using medical theatre. In addition, more than 85% of the participants were ready to accept medical theatre as a part of their regular curriculum. This methodology has the potential to be effective in other fields such as dentistry, pharmaceutical companies in training medical representatives and in awareness programs for non-medical communities.

More recently, several methods have been suggested to improve the efficacy learning in medical education. One such popular concept is the Problem Based Learning (PBL) where the student learns all concepts the problem instead of reading various aspects at different stages of the curriculum (5, 6). This is typically carried out in groups where each student reads up a particular aspect about the disease and discusses it amongst the rest. Another unconventional dynamic group learning method is Fishbowl learning. Here a discussion group is surrounded by an observation group, and learning happens by watching others discuss (7,8,9).

These methods are, however, low on entertainment value. Another method which has proven to be fun and effective in medical education is simulation based learning (10). The concept of medical theatre reaches out to a group of students who can learn while having fun and challenges their creativity and imagination.

### **IMPLICATIONS**

A possible reason for the effectiveness of medical theatre can be attributed to the stimulation of the limbic system

along with the audio visual cues received along with the information. The conventional methods of education do not typically trigger emotions. Medical theatre, however, helps associate learning topics with the emotionally charged experience of theatre (3,4).

The process of medical theatre would automatically involve reading and trying to understand the medical content first. Following which, the individual creates a plot using the content. This process naturally invokes concentration, imagination and creativity and forms a sequence of events, thus helping remember a topic. The plot is unique to the individual's thoughts and hence posing a challenge to create an interesting outcome and building ownership.

### **WEAKNESSES**

The outcome and efficacy of medical theatre may result in varied levels of learning in each student. Here we have not taken into consideration the various confounding factors such as – interest in a particular medical topic or the creative ability of an individual, which may result in different learning levels. Additionally, since our participant sample included a heterogeneous population – students in various levels of under graduation and nursing, the baseline level of understanding of various topics could be varying.

Further data will be required to establish the efficacy of this methodology in the future. The current data only shares our initial experiences.

### **CONCLUSION**

This article highlights the acceptance and benefits of using medical theatre as an innovative teaching methodology for the learning and understanding of medical topics. This methodology, however, does not substitute the conventional teaching and learning methods in any manner. It only provides an option to learn certain topics in a unique manner so as to break the monotonous process of usual methods of studying and to have an enjoyable learning experience in the process.

### **APPENDIX 1**

**Figure 5**

**MEDICAL THEATRE WORKSHOP – MAY 2011 – ONE DAY INTERVENTION**

Introductory session in Theatre methodology -

Theatrical skills

**Snack Break**

Script Writing

**Lunch Break**

Looking at Medical topics theatrically

Stage 1 - Medical Theatre presentation

**Snack Break**

Stage 2 – Medical Theatre presentation and Review

**Schedule and Format of Day 2**

Stage 3 – Medical Theatre presentation

Looking at Medical topics theatrically

**Snack Break**

Stage 4 – Medical Theatre presentation rehearsal

**Showcasing Performance for invited audience of 40 to 60 members**

Circle time

**APPENDIX 2**

**Figure 6**

| MEDICAL THEATRE WORKSHOP-JUNE 2011 – DAY ONE  | MEDICAL THEATRE WORKSHOP-JUNE 2011 – DAY TWO  |
|---|---|
| Session 1<br>Introductory session in Theatre methodology  | Session 1<br>Theatre games<br>Two teams, competitiveness, collaboration and PLAY          |
| Session 2<br>Script Writing   | Session 2<br>Reading and rehearsing the allotted two plays with allotted team leaders     |
| <b>Snack Break</b>  | Group creation in allotted performance spaces   |
| Session 3<br>Script Content and Format  | Session 3<br>Technical show<br>Suggestive changes   |
| Session 4<br>Theatre games<br>Bonding, competitions, collaboration and understanding through PLAY method        | <b>Snack Break and Telemarketing</b>  |
| <b>Lunch Break</b>  | Session 4<br>Run-through and Polishing for final performance<br>Creating the presentation |
| Session 5<br>Script<br>Content and Creation   | <b>Showcasing Performance for invited audience of 40 to 60 members at allotted space</b>  |
| Session 6<br>Dramatic Elements of a Performance<br>Understanding better performances                            | <b>Lunch Break</b>  |
| Session 7<br>Role-Play<br>The dramatic elements and uses in the Medical field                                   | Session 5<br>Playback Theatre and Closure   |
| <b>Snack Break</b> with work-in progress performance by MSc Psychology students – <b>Three Gems</b>             |   |
| Session 8<br>Learning's of the day and Forward links<br>Documentation, Understanding, Expectations and Planning |   |

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