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Teaching Schizophrenia: 8-Minutes Video Based Lecture Versus 1-hour Traditional Lecture

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

Video-based teaching module is well known and practiced in some university courses but the effort to validate this type of education tool in medical and health education system is yet to be expanded and explored especially from pharmacy students' perspective. Materials and method: forty pharmacy students evaluated their experience from attending a one-hour lecture and watching a short video-based lecture lasted for eight minutes both were about clinical presentation and diagnosis of schizophrenia. Result and discussion: 70% of the sample (n=28) preferred video-based lecturing. Advantages and disadvantages varied from faculty and students' perspectives, but it saved time, was enjoyable and memorable. Conclusion: positive agreement of pharmacy students toward schizophrenia video-based lecture was assured and effort must be put on validating video-based lecture content.

Keywords: Schizophrenia; teaching; video-based; pharmacy; education.

1. INTRODUCTION

University educators agree that absenteeism affect students' performance, learning outcomes, distraction and professionalism with several numbers of studies pointing towards this concern [1-5]. There are different learning modules adopted in academia to improve learning

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outcomes and video-based lecture is one of them. Video-based lecture could be defined as a recorded video of educational materials. The attention and memory were reported to be improved in video-based lesson in a study published in American journal of distance education [6]. In developing the scope of this study, the experiences of various institutions of higher learning were carefully selected and considered. Although not statistically significant, video-assisted lecture helped in changing the opinions of students toward pain-free dental injections in children at the Faculty of Dental Medicine, University of Medicine of Tirana, Albania [7]. The exam performance results of a biological psychology course show a significant difference toward recorded lectures with positive effect at the knowledge base but not in the critical thinking skills [8].

In Germany, three studies from different universities were also evaluated. The first one involved majority of students in a dental school in Tübingen preferred the videos in psychological aspects of paediatric dentistry course which was delivered by either live lecturing or through videotapes [9]. In the second study, they targeted senior medical students at the Vanderbilt University. Both studies concluded that online lecture (internet-based PowerPoint slides with audio) on principle of screening tests for health problems were comparable to the live traditional lecture [10]. The third study was at the University of Göttingen to prepare medical students for their clinical exams showed no difference in the effectiveness between video and live course but the learning atmosphere and ability to concentrate were significantly higher in the video course [11]. It is therefore justified to state that video-based learning is more effective in medical training.

The main objective of the study is to assess whether video-based lecture improved pharmacy students understanding of clinical presentation of schizophrenia, a severe mental disorder that affects more than 21 million people globally [12], compared to traditional classroom lecture. Other objectives will explore advantages and disadvantages of video-based teaching strategy and different challenges facing faculty and students to apply this type of teaching.

2. MATERIALS AND METHODS

The study adopted both qualitative and quantitative research. The adoption of both qualitative and quantitative is to minimise the errors occasioned by each method and exploit their respective advantages in ensuring validity of the research.

Ninety pharmacy students in their final year enrolled in college of pharmacy, Princess Nourah Bint Abdul Rahman University (PNU), Riyadh, Saudi Arabia and registered for "integrated patient care laboratory CPP 444" course with forty of them agreeing to participate (response rate of 44.4%) and were given a 1-hour lecture-schizophrenia lecture- covering disease background, aetiology, diagnostic criteria, and general treatment plan. The same students then watched a video (scientific content of the video was evaluated) which lasted for eight minutes with the same learning outcomes covered by the 1-hour session. Students were asked individually to evaluate their experience whether they preferred the video-based lecture or not with no bearing to their grades. Students had the option to select their responses on a five-point Likert scale. Suggestions and concerns were collected from pharmacy faculty and students through short interview to conclude pros and cons of video versus traditional lecturing. Descriptive statistics were performed to explain the results with mean, standard deviation SD and percentages.

3. RESULTS AND DISCUSSION

Positive agreement toward schizophrenia video-based lecture were 70% (32.5% responded with strongly agree and 37.5% responded with agree) while 10% preferred traditional lecturing (all of which responded with disagree to video-based teaching and none with strongly disagree). However, 20% of the students were undecided on which model suits them best. The low standard deviation (SD=0.971) indicates that the responses were closer to the mean which was in favour of video-based lecturing (mean=3.9725) as summarized in Table 1 and Fig. 1.

Upon collecting faculty and students' opinions, the main advantages of video-based lecturing were 1) saving time: 13% of the time spent on watching the video when compared to attending traditional lecture, 2) flexible time sets, 3) attending from remote places and distance, 4) ability to repeat the lecture and pause at any time, 5) no need to attend the class and spend the extra time in other activities, 6) much fun and 7) memorable. The disadvantages were 1) the loss of contact with the lecturer with no effective

Table 1. Students' evaluation of their experience: video-based teaching would be better for teaching of clinical presentation of schizophrenia (mean, standard deviation SD, numbers and percentages of agreement)

Mean	SD	Strongly agree N (%)	Agree N (%)	Undecidable N (%)	Disagree N (%)	Strongly disagree N (%)
3.925	0.971	13 (32.5%)	15 (37.5%)	8 (20%)	4 (10%)	0 (0%)

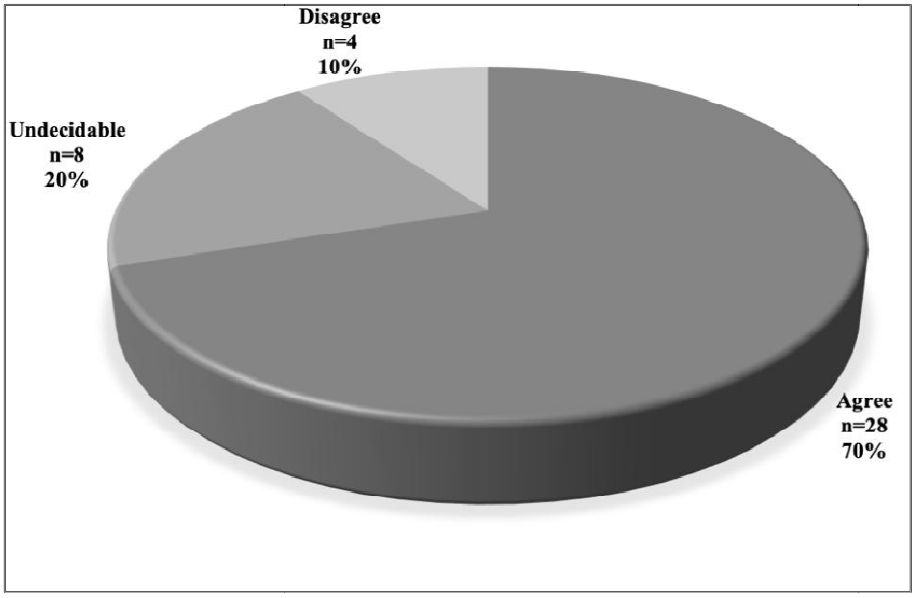

Fig. 1. Students' evaluation of their experience: video-based teaching would be better for teaching of clinical presentation of schizophrenia by percentage of agreement

discussions, 2) no contact with peers, 3) not all faculty aware of using this type of teaching, 4) finding valuable video resources or creating teaching materials is difficult and 5) if decided to purchase educational videos it will be expensive. Limitations may include 1) the number of participants, 2) lack of control group to draw more conclusions, 3) correlation with quiz or test grades for each group, 4) more videos of complicated topics in pharmacy and finally 5) readiness of both faculty and students to use and validate online resources.

4. CONCLUSION

Time is valuable in education and incorporation of various learning modules into the current class set up improves students' attention. As opposed to the traditional learning module, video-based lecturing is one of the transformations in lecture that brings high acceptance from students' perspective in this study. This study may attract educators to adopt video-based lecturing in pharmacy schools.

CONSENT

As per international standard or university standard, participant's written consent has been collected and preserved by the author.

ETHICAL APPROVAL

Approval for the study was given by PNU institutional review board (IRB Log Number: 18-0334) and considering the national regulations that govern the protection of human subjects.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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