

Video Recording Feedback in Communication and Counselling Among Pharmacy Students. Is it Better than Verbal Feedback?

Tee Pey Chiau, Adliah Mhd Ali*, Mohd Makmor Bakry, Norazrina Azmi, Thomas Paraidathatu

Department of Pharmacy Education Unit, Faculty of Pharmacy, Universiti Kebangsaan Malaysia, Jalan Raja Muda Abdul Aziz, 50300 Kuala Lumpur, MALAYSIA.

ABSTRACT

Objectives: This study was conducted to evaluate the effect of video recording feedback in comparison to verbal feedback in communication and counselling among pharmacy students in Universiti Kebangsaan Malaysia. **Methods:** Fourth year pharmacy students (N=45) were randomly assigned into three groups, where students received either video feedback (N=16), verbal feedback (N=16) or no feedback (control group) [N=13] after counselling session. The students' performances of communication and counselling skills were assessed by assessors consisting academician and practising pharmacist prior and post interventions. **Results:** Communication skills of the students in the video and verbal groups were significantly improved compared to the control group ($p < 0.05$). It was found that student's counselling skills were not significantly influenced by their academic performances (cumulative grade point average) and cultural background of different races. However, gender may have significant influence on the students' performance in general communication ($p = 0.014$). **Conclusion:** Video recording feedback could potentially be used as a new teaching method in general communication and counselling among UKM pharmacy students in the future.

Key words: Communication and counselling, Video recording feedback, Verbal feedback, Pharmacy students.

INTRODUCTION

Pharmacists have been engaged in patient education and medication counselling activities to ensure safe and effective use of medicines. As patient counselling is an important element in the pharmacy practice, an effective communication skill is crucial in order to support their role to communicate effectively in patient counselling.¹

In view of the importance of effective communication in the pharmacy practice, various educational methods have been developed for students and practicing pharmacists. These educational methods include role play,² simulated patients methods,³ and analysis of the videotape.⁴

Video recording feedback has been introduced to facilitate the implementation of communication skills. This method involves recording the interaction between par-

ticipants and clients. Participants are then allowed to evaluate themselves on closed circuit television. This process provides space of reflection to participants by observing, thinking, recognising of one's own behaviour and those of the others.⁵ A more detailed analysis of a person's attitude can be conducted through replay of the videotape.⁵ Through videotape, participants could focus on their non-verbal aspects such as head nodding, hand gestures; holistic skills such as sensitivity, warmth or kindness; verbal aspects such as the content of what is being said; paralingual aspects such as intonation, speaking pace and volume.⁵

In video feedback approach, feedback plays a significant role in guiding students to develop effective communication skills. The combination of videotape and feedback is

Submission Date : 06-11-2015
Revised Date : 16-01-2016
Accepted Date : 02-02-2016

DOI: 10.5530/ijper.50.2.4

Correspondence Address

Adliah Mhd Ali,

Department of Pharmacy

Education Unit,

Faculty of Pharmacy

Universiti Kebangsaan

Malaysia, Jalan Raja Muda

Abdul Aziz 50300 Kuala

Lumpur MALAYSIA.

Phone no: +603 92897964

Fax: +603 26983271

E-mail: adliah@ukm.edu.my



www.ijper.org

more effective than the isolated use of videotape.⁵ Feedback provided after video review subsequently guides participants to discover the key elements of their behaviour and allowing them to evaluate their performance in a structured manner.⁵

Students perceived that the video evaluation process could help to strengthen their self-esteem⁶ and build their confidence in interpersonal skills.⁴ They expressed enthusiasm for video feedback and perceived that they need more training in order to be proficient.^{6,7} Therefore, researchers had suggested that video recording feedback should be introduced from the beginning of the medical training.⁶

Numerous researches have demonstrated the effectiveness of video feedback in teaching communication skills in medical school. However, there is limited data related to the use of video feedback in the local pharmacy setting particularly in Universiti Kebangsaan Malaysia (UKM). If this method is found to be effective, it could be proposed as part of the UKM pharmacy curriculum. Hence, this study is important to evaluate the effect of video recording feedback in comparison to the verbal feedback in communication and counselling among pharmacy students and then to identify factors influencing their performance and their experiences in counselling training.

METHOD

Participants

The study was conducted involving the fourth year pharmacy students from March until May 2012 at the Faculty of Pharmacy, Universiti Kebangsaan Malaysia (UKM).

Ethics Approval

Ethics committee's approval was obtained from Universiti Kebangsaan Malaysia (UKM 1.5.3.5/244/NF-010-2012).

Study Design

A randomised interventional study was conducted to evaluate the effects of different methods of feedback by the assessors in improving the communication skills among the pharmacy student. Systematic and stratified random sampling was used based on students' cumulative grade point (CGPA). Students were randomly divided into three groups, either verbal feedback, video feedback, or no feedback (control group) after undergoing the counselling session.

Sample Size Calculation

Study from Mort and Hansen (2010) was used as the study instrument and the sample size was calculated. It was found that at least 44 students per group were required to be able to detect a 1.5 increment in the assessment score between pre and post video with a power of 90% and a significance level of 5%.

Study Instruments

The assessment tool was adopted from study by Mort and Hansen (2010).⁴ The counselling assessment tool contained 25 equally weighted items and were evaluated on a 3-point Likert scale (0=did not complete, 1=partially completed, 2=fully completed) for a total of 50 points. Variables were divided into several subscales which include general score, technical score, interpersonal score and total score. General score consist information on patient introduction, verification of prescription, allergy and over the counter medicine information and providing the number of refills. Technical score consists information on the intended use of medicine, side effect, precaution and interaction, instructing the correct administration method and storage, and describing the missed dose or maximum doses. Interpersonal score consists of open-ended questions and language that patient likely to understand, displaying non-verbal aspect of communication, providing empathy response, presenting fact in logical order, maintaining the direction of counselling, verifying patient understanding, summarising and closure. Total score is the sum of all the scores.

Data Collection

Students were informed on the purpose of the study and those who were interested contacted the researcher to provide consent for participation. The students were randomly selected into three groups; verbal feedback (verbal group), video feedback (video group), and no feedback (control group). All students enrolled in this study went twice for the counselling session. The counselling sessions were conducted simultaneously for all the three groups at six different stations. Two assessors from the academic and practising pharmacist background were assigned to each station to observe and assess student's performance.

RESULTS

Among 98 fourth year pharmacy students, only 48 students agreed to participate with a response rate of 49%. Sixteen students were enrolled in the video group, 16 in the verbal group and 13 in the control group.

Three students were excluded as they did not complete the second counselling session.

The average assessment scores obtained in the first (“pre”) and second (“post”) counselling session were compared among the three groups (Table 1). Significant differences were noted in the total score, general score and interpersonal score between the first and the second counselling session for both video and verbal groups ($p < 0.05$) but not in the control group.

The average assessment scores between the three groups were compared (Table 2). Post hoc tests revealed no significant differences between the three study groups for the first counselling session ($p > 0.05$). After the intervention, no significant differences were detected for all scores between video and verbal groups ($p > 0.05$).

The results showed that no significant difference were found in this counselling exercise between the high achiever, intermediate and low achiever students based on their academic performance; cumulative grade point average (CGPA), and races ($p > 0.05$). However, there was a significant correlation between gender and the general score ($r = 0.368$, $p = 0.013$). (Table 3).

Questionnaire was distributed among the students prior to the counselling session. Results showed that only 28% (7 out of 25) students stated that they were confident with their counselling skills. Forty percents (10 out of 25) stated that they did not understand the concept of general counselling skills even though they had undergone the communication module provided by the university. After completion of the second counselling, similar questionnaire was distributed again to the students. Results found that 15 out of 25 students (60%) stated that they were confident with their counselling skills. It was found that the understanding level of general counselling skills was significantly higher in the intervention group ($p < 0.05$).

DISCUSSION

It has been found that both verbal and video feedback had significant effect on students’ counselling performance. The improvement that was noted in total score and general score for both video and verbal groups could be due to the feedbacks provided by the assessors. Previous study showed that feedback method could potentially result in an overall improvement of the communication skills of medical students and physicians.⁸ The instructors’ feedback helped the students to identify and correct more errors than those who are not aware of it, and then increased students’ understanding of theoretical knowledge and their motivation to study.⁹

Hence, the finding suggested that feedback is the core elements in improving the communication skills.

In this study, no significant difference was noted between the score in the verbal and video groups. The finding was in marked contrast to the finding from the previous studies, where the researchers demonstrated that the video feedback is superior to the other feedback methods.^{7,10} This could be due to the short period of time provided for the feedback session with only a total of 30 min for 16 students. Due to the limited time, students from the video group may not be able to reflect themselves thoroughly even though they managed to watch their own video and compared it with a standardised counselling video.

Another possible reason was that the students did not receive individual instructors’ feedback based on their own video. Instead, they received a group feedback session which was general and brief. Without individual tailored feedback, students may not be able to identify their own deficiencies in communication by viewing the video. A study showed that video review with instructors’ feedback is essential to develop self-awareness and improve communication skills.⁷ The plausible explanation was that video review provides an opportunity for students to observe and focus on which aspects of their performance that needed improvement. Several studies showed that video recording feedback offers a way to promote self-awareness and self-evaluation of both positive and negative behaviours, and motivate self-improvement.¹¹ The researcher emphasised video feedback is an optimal method to teach communication skills to medical students.^{9,11}

Gender is considered one of the independent variables that may likely affect the counselling performance of pharmacy students in this study compared to race and academic performance. Female students showed significant improvement in general communication after intervention compared to the male students. The plausible explanation was that female student may be engaged in more positive talk, partnership-building, question-asking, and information-giving compared to male students.¹² Previous study had shown that knowing the mechanics of counselling was insufficient for being an effective counsellor and suggested that personal awareness was critical for knowing when and how to use counselling skills.¹³

The findings in this study suggest the beneficial effect of both verbal feedback and video recording feedback in improving students counselling skills. The benefits of both type of feedback were further supported by the comments from the students, mainly in the area

Table 1: The average scores of the control, verbal and video groups in the first and second counselling session

Average Score	Group ^b	1 st counselling ^a (Mean ± SD)	2 nd counselling ^a (Mean ± SD)	Mean difference ^b (2 nd -1 st)	Within group p-value ^a	Between group p-value ^b
Total Score	Control	25.07 ± 4.28	25.69 ± 5.59	0.62	0.497	0.001 *
	Verbal	27.47 ± 6.46	34.25 ± 4.48	6.78	0.001 *	
	Video	25.06 ± 5.71	33.00 ± 5.89	7.94	0.000 *	
General Score	Control	3.96 ± 1.81	5.00 ± 2.02	1.04	0.228	0.001 *
	Verbal	4.63 ± 1.38	9.41 ± 2.16	4.78	0.000 *	
	Video	4.16 ± 2.13	9.56 ± 1.91	5.41	0.000 *	
Technical Score	Control	8.96 ± 2.39	7.11 ± 1.93	-1.85	0.007 *	0.335
	Verbal	8.34 ± 2.38	7.75 ± 1.55	-0.59	0.475	
	Video	8.25 ± 2.51	7.56 ± 2.04	-0.69	0.131	
Interpersonal Score	Control	12.15 ± 2.83	13.58 ± 2.95	1.42	0.123	0.296
	Verbal	14.50 ± 3.59	17.09 ± 2.91	2.59	0.010 *	
	Video	12.66 ± 2.29	15.88 ± 3.09	3.22	0.000 *	

^a Paired t-test,^b ANOVA

* p<0.05, statistically significant.

Table 2: The mean value difference of all scores between groups for the first and second counselling session

Average Score	Group 1 (i)	Group 2 (j)	1 st counselling		2 nd counselling	
			Mean difference (i-j)	p-value ^a	Mean difference (i-j)	p-value ^a
Total Score	Control	Verbal	-2.39	0.497	-8.56	0.000 *
	Control	Video	0.01	1.000	-7.31	0.002 *
	Verbal	Video	2.41	0.455	1.25	0.787
General Score	Control	Verbal	-0.66	0.590	-4.41	0.000 *
	Control	Video	-0.19	0.955	-4.56	0.000 *
	Verbal	Video	0.47	0.744	-0.16	0.974
Technical Score	Control	Verbal	0.62	0.776	-0.64	0.630
	Control	Video	0.71	0.715	-0.45	0.794
	Verbal	Video	0.09	0.993	0.19	0.956
Interpersonal Score	Control	Verbal	-2.35	0.097	-3.52	0.008 *
	Control	Video	-0.50	0.893	-2.23	0.110
	Verbal	Video	1.84	0.195	1.22	0.486

^aPost hoc Tukey's

*p<0.05, statistically significant.

Table 3: The average scores for male and female students that given by assessor in the first and second counselling session

Average Score	Gender ^{b, c}	1 st counselling ^a (Mean ± SD)	2 nd counselling ^a (Mean ± SD)	Mean difference ^{b, c} (2 nd -1 st)	p-value ^a	Between group p-value ^b	Correlation ^c r; p-value
Total Score	Male	26.10 ± 2.82	27.90 ± 5.26	1.80	0.353	0.156	0.234; 0.121
	Female	25.90 ± 5.91	31.76 ± 6.44	5.86	0.000 *		
General Score	Male	5.20 ± 1.15	5.60 ± 1.85	0.40	0.711	0.014 *	0.368; 0.013 *
	Female	4.15 ± 1.83	8.51 ± 2.81	4.36	0.000 *		
Technical Score	Male	8.20 ± 1.92	6.90 ± 2.33	-1.30	0.328	0.768	0.057; 0.708
	Female	8.53 ± 2.47	7.58 ± 1.78	-0.95	0.020 *		
Interpersonal Score	Male	12.70 ± 2.86	15.40 ± 3.73	2.70	0.296	0.866	-0.014; 0.929
	Female	13.23 ± 3.12	15.68 ± 3.24	2.45	0.000 *		

^aPaired t-test,^bANOVA,^cSpearman's rho correlation,

*p<0.05, statistically significant.

of non-verbal communication, and the importance of facial expressions, body posture, eye contact, and voice tone. They reported that they have learnt the principles of communication skills for counselling after undergoing the counselling session in the study. In general, experiential method of learning communication skills is much preferred compared to the conventional methods such as lecture. They also expressed enthusiasm during the feedback process and agreed that video recording feedback could potentially be a useful tool in the future.

Study Limitation

This study illustrated significant findings that may improve counselling skills among pharmacy students. However, low number of sample size and short duration of feedback session for video group, may contribute to the study findings. Due to the short period of time, students may not be able evaluate and reflect themselves effectively by viewing their own video. Therefore, video recording feedback may require longer period of time including several sessions for students self centred learning in the future.

CONCLUSION

Verbal and video recording feedback had been shown to improve students' performance in patient counselling and gender may potentially have indirect effect in influencing students' general communication skills. Video recording feedback could potentially be introduced in the teaching method of general communication and counselling skills among UKM pharmacy students.

ACKNOWLEDGEMENTS

Research grant UKM-PTS-058-2011 for supporting this study.

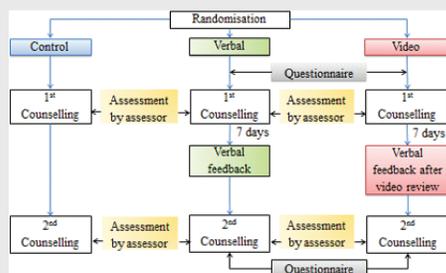
CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

REFERENCES

1. WHO. The role of the pharmacist in the health care system, preparing the future pharmacist: curricular development: report of a third WHO Consultative Group on the Role of the Pharmacist, Vancouver, Canada. Vancouver: World Health Organisation. 1997.
2. Rao D. Skills development using role-play in a first-year pharmacy practice course. *Am J Pharm Educ.* 2011;75(5): Article 84.(5).
3. Mesquita AR, Lyra DP, Brito GC, Balisa-Rocha BJ, Aquiar PM, deAlmeida Neto AC. Developing communication skills in pharmacy: A systematic review of the use of simulate patient methods. *Patient Educ Couns.* 2010;78(2):143-8.
4. Mort JR, Hansen DJ. First-year Pharmacy student's self-assessment of Communication skills and the impact of video review. *Am J Pharm Educ.* 2010;74(5):Article 78.
5. Fukkink RG, Trienekens N, Kramer LJC. Video Feedback in Education and Training: Putting learning in the picture. *Educ Psychol Rev.* 2011;23(1):45-63.
6. Nilsen S, Baerheim A. Feedback on video recorded consultations in medical teaching: why students loathe and love it—a focus-group based qualitative study. *BMC Med Educ.* 2005;5(1):28.
7. Paul S, Dawson KP, Lanphear JC, Cheema MY. Video recording feedback: a feasible and effective approach to teaching history-taking and physical examination skills in undergraduate paediatric medicine. *Med Educ.* 1998;32(3):332-6.
8. Aspegren K. Best Evidence Medical Education (BEME) Guide 2: Teaching and learning communication skills in medicine—a review with quality grading of articles. *Medical Teacher.* 1999;21:563-70.
9. Nicol DJ, Macfarlane-Dick D. Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Studies in Higher Education.* 2006;31(2):199-218.
10. Ozcakar N, Mevsim V, Guldal D, Gunvar T, Yildirim E, Sisli Z, *et al.* Is the use of videotape recording superior to verbal feedback alone in the teaching of clinical skills?. *BMC Public Health.* 2009;9(1):474.
11. Lane JL, Gottlieb RP. Improving the interviewing and self-assessment skills of medical students: is it time to readopt videotaping as an educational tool?. *Ambulatory Pediatrics.* 2004;4(3):244-8.
12. Roter D, Lipkin M, Korsgaard A. Sex differences in patients' and physicians' communication during primary care visits. *Med Care.* 1991;29:1083-93.
13. Torres-Rivera E, Wilbur MP, Maddux CD, Smaby MH, Phan LT, Roberts-Wilbur JR. Factor structure and construct validity of the Counselor Skills Personal Development Rating Form. *Counselor Ed and Supervision.* 2002;41:268-78.

PICTORIAL ABSTRACT



ABBREVIATIONS USED

CGPA: Cumulative grade point; UKM: Universiti Kebangsaan Malaysia.

SUMMARY

- Video recording feedback could potentially be used as a new teaching method in general communication and counselling among pharmacy students.

About Author



Adliah Mhd Ali obtained her PhD from Monash University Australia. She is a senior lecturer in the Faculty of Pharmacy Universiti Kebangsaan Malaysia. She is currently the Head of Industrial and Community Network in the faculty. Her research interests are pharmacy education and pharmacy practice.