

A consumer informed workshop can improve knowledge and attitude to patient-centered care among hospital clinicians-in-training

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ABSTRACT

Purpose: Patient and family involvement in the education and training of medical practitioners increases the likelihood that the care delivered will meet the needs of service users and carers. The purpose of this study was to determine the effect of a consumer informed educational program on knowledge and attitude to patient-centered care among hospital clinical trainees. **Methods:** A total of 66 junior medical staff and 35 orthoptists in training were invited to participate in a controlled before-and-after trial at the Royal Victorian Eye and Ear Hospital from October to November, 2011. Thirty-eight participants were allocated to the intervention program (interactive workshop) and 63 to the control program (assigned reading). Questionnaires regarding knowledge, attitude, and practice, patient-practitioner orientation and communication were administered. Differences between groups and differences before and after the program were evaluated using the *t*-test or Chi-square test, as appropriate. Narrative data obtained from the questionnaires were analyzed using Grounded Theory qualitative analysis techniques. **Results:** A total of 24 participants (63%) completed the intervention program and eight (13%) the control program. The intervention group felt more prepared to introduce themselves and their role (Chi-square = 11.19, *P* = 0.01) and to acknowledge patients' waiting time prior to consultation (Chi-square 8.52, *P* = 0.04) compared with the control group. For the intervention group, there was an improvement in mean score on the Communication Assessment Tool (mean change = 0.55, *P* = 0.01). **Conclusion:** There were minor improvements in self-perceived knowledge and attitude to patient-centered care and communication among hospital clinicians-in-training following a consumer informed education program. The majority of participants who received this program agreed it would influence how they conducted future consultations. Further work is required to determine if these improvements translate to sustainable changes in clinical practice and patient satisfaction.

Key words: Communication, consumer participation, eye and ear services, medical education, patient-centered care

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Access this article online

Quick Response Code:



Website:
www.jehp.net

DOI:
10.4103/2277-9531.171818

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This article may be cited as: Bentley SA, Tellis B, Michel KL, O'Connor P, Clarke C, Jill KE. A consumer informed workshop can improve knowledge and attitude to patient-centered care among hospital clinicians-in-training. *J Edu Health Promot* 2015;4:104.

INTRODUCTION

Patient-centered care is embodied through respecting the needs, values and preferences of patients.^[1] An essential component is effective communication between doctors and patients.^[2,3] Studies have shown that treating patients as partners^[4] increases quality and safety, decreases costs, and improves satisfaction of both health care providers and patients.^[5,6] Similarly, involving patients and families in the planning, delivery and evaluation of education programs has shown increases in communication skills, empathy, and interpersonal skills of workers. However, most studies have focused on mental health service providers.^[7]

Obstacles preventing consumers from being active participants in their healthcare include health care workers' personal beliefs, desire to maintain power and control, and lack of time.^[8] Communication training has been found to increase the overall communication competence of medical students,^[9] improve patient satisfaction, decrease complaints^[10] and minimize anxiety for patients before surgery.^[11,12] These positive outcomes could be further enhanced by patient involvement in training and education,^[5] something, which has not been fully integrated into all medical training courses, nor properly evaluated.^[9] To the best of our knowledge, there are currently no evidence-based patient-informed programs in tertiary public eye and ear hospital settings, where predominantly outpatient services are delivered.

We aimed to determine the effect of a consumer informed educational program on knowledge and attitude to patient-centered care among hospital clinical trainees.

METHODS

Study design

A controlled before-and-after trial of a consumer informed education program on patient-centered care and communication was conducted at the Royal Victorian Eye and Ear Hospital (Eye and Ear) from October to November 2011. All 101 clinicians-in-training at the Eye and Ear were invited to participate, including 66 junior medical staff (ophthalmology registrars and fellows, ear nose and throat registrars and fellows, and Hospital Medical Officers) and 35 orthoptists in training.

The study adhered to the tenets of the Declaration of Helsinki and the design, methods and protocol were approved by the Eye and Ear Human Research and Ethics Committee. Informed written consent was obtained prior to participation.

Education program

The intervention education program was informed by a cross-sectional study of the experiences of Eye and Ear patients. One researcher observed the visit of 51 patients from across 28 outpatient clinics and administered a patient satisfaction questionnaire (based on the Victorian Patient Satisfaction Monitor Survey^[13] and the National Health

Service Outpatients Core Questionnaire^[14]). A Steering Committee of 13, including three consumers reviewed the results and prioritized themes for an education program on patient-centered care. Eight broad themes emerged from the data on patient-centered care: Information, doctor/patient communication, professionalism of the staff, patient fear/anxiety, and delivery of news. Using these concepts, a consumer representative, and qualified educator developed the learning objectives and outcomes for the program. The broad learning outcome was to improve the knowledge, attitude and practice of clinicians-in-training when communicating with patients. Specific learning objectives included the ability to introduce self and role, acknowledge waiting time, provide clear information and explanations, use appropriate questioning techniques, listen actively, use appropriate body language, and develop awareness of inappropriate behavior.

The intervention program was a 1-h interactive workshop on patient-centered care and communication mainly using patient stories. Presentations were delivered by the parent of an Eye and Ear patient and a practicing medical specialist. At the commencement, participants were invited to describe what "patient-centered care" meant to them and at the conclusion to write down on a post-it-note one thing they would do differently because of the workshop. Participants were also provided with resources such as information sheets on the core concepts of patient-centered care, verbal and nonverbal communication, a journal article on patient participation^[8] and a list of relevant websites.

The control program comprised the independent reading of a journal article on patient participation^[8] and an information sheet on verbal and nonverbal communication, identical to those provided in the intervention program as additional resources. These learning materials were not informed by patients or consumers.

The workshop was arranged and all trainees who had been scheduled to work at the main clinical site on this day were allocated to the intervention group. Trainees who had been scheduled to work at a satellite clinical site were allocated to the control group. The workshop was held during a lunch hour and the control program was circulated via E-mail on the same day.

Outcome measures

Demographic data, knowledge, attitude, communication skills and program evaluation data were collected using a series of questionnaires.

Knowledge, attitude and practice

Knowledge, attitude and practice (KAP) was evaluated using a questionnaire tailored to the specific goals of the education program. The questionnaire included two items asking participants to rate their confidence in understanding patient-centered care and communicating with patients and families (five-level scale from (1) very low confidence to

(5) very high confidence). It also included six items on how well prepared they felt to introduce themselves, acknowledge waiting time, provide clear information, ask questions, listen actively and use appropriate body language (five-level rating scale from (1) poorly prepared to (5) extremely well prepared). In addition, participants were asked to comment on their understanding of patient-centered care and to give an example of what can go wrong in patient care as a result of poor communication.

Patient-practitioner orientation scale

The Patient-Practitioner Orientation Scale (PPOS) was used to evaluate attitudes to patient-centered care through statements about the roles of patients and practitioners in medical consultations.^[15] The questionnaire comprises 18 items asking participants to rate their agreement to statements, like “the doctor is the one who should decide what is talked about during a visit,” on a six-point Likert scale from (1) strongly agree to (6) strongly disagree, with internal reliability of Cronbach’s alpha 0.89.^[15] The overall score is the average of all item scores. For this study, the word “doctor” was replaced with “health practitioner.”

Communication assessment tool

The Communication Assessment Tool (CAT) was used to evaluate participant perceptions of their communication skills with patients.^[16] It comprises 14 items rated on a five-point scale from (1) poor to (5) excellent, with high reliability (Cronbach’s alpha 0.96).^[16] For example, participants are asked, “How is your communication with patients with regard to understanding their main health concerns?” The overall score is the average of all item scores.

Evaluation

The evaluation questionnaire included five items asking participants to rate their agreement, on a five-point Likert scale from (1) strongly agree to (5) strongly disagree, to statements about the organization of the workshop, the information and resources provided and what impact the intervention would have on future consultations. In addition, participants were asked three open questions on what worked well, ways in which the program could have been better and suggestions for improving the program.

The KAP questionnaire was administered 1 week before the program and repeated 1 day after the program, together with the evaluation questionnaire. The PPOS and CAT questionnaires were administered 1 week before and repeated 1 week after the program.

Data analysis

Quantitative data were analyzed using version 19 of SPSS Inc., (IBM, New York, NY, USA). Characteristics of the participants and data obtained from the questionnaires were analyzed using descriptive statistics. Differences between groups and differences before and after the program were evaluated using the *t*-test or Chi-square test, as appropriate. Analyses were two-tailed and *P* < 0.05 was considered

statistically significant. Narrative data obtained from the KAP and program evaluation questionnaires were analyzed using Grounded Theory^[17-19] qualitative analysis techniques; three study investigators used an iterative process until consensus was reached.

RESULTS

Participants

From the total of 101 clinicians-in-training, 45 accepted and completed a questionnaire before the program (24/38 [63%] in the intervention and 21/63 [33%] in the control group) [Figure 1]. The majority (16/24 [67%]) of junior medical trainees who accepted were in the age category 30–39 years, with four 20–29 years and four 40–49 years. Twenty-two were training in ophthalmology, and two in ENT. All 21 orthoptists were aged 20–29 years. The ratio of male to female junior medical staff who accepted was 14:10 and for orthoptists was 4:17. The ratio of male to female participants in the intervention group was 7:17 and in the control group 11:10.

Of the 45 who completed a questionnaire before the program, 23 (51%) completed it after the program (16/24 [67%] in the intervention group and 7/21 [33%] in the control group) [Figure 1]. Only 10 participants in the intervention group and eight in the control completed the PPOS questionnaire postprogram. Similarly nine participants in the intervention group and eight in the control completed the CAT questionnaire postprogram.

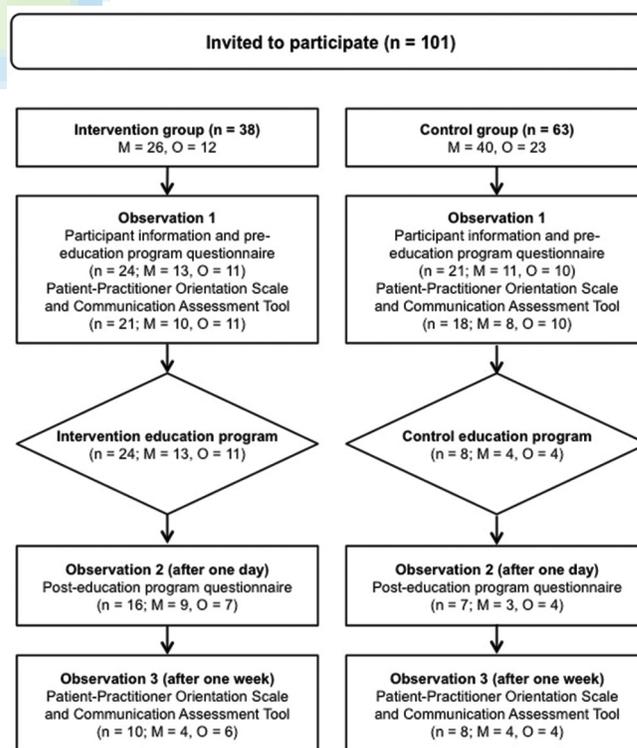


Figure 1: Recruitment and flow of participants through the study (M = Junior medical staff; O = Orthoptists in training)

Before the program

Most participants rated their level of confidence in understanding patient-centered care as moderate or less (21/24 [88%] in the intervention and 17/21 [81%] in the control group) with no statistically significant difference between the groups (Chi-square 1.55, $P = 0.67$). Similarly, the majority in both groups rated their level of confidence in communicating with patients and families as moderate or less (18/24 [75%] in the intervention and 12/21 [57%] in the control; Chi-square 5.51, $P = 0.24$).

With respect to the two professional groups, there was no significant difference in self-rated understanding of patient-centered care (Chi-square 1.55, $P = 0.67$). However, junior medical staff rated themselves significantly more confident in communicating with patients and families compared with orthoptists (14/24 [58%] junior medical staff and 1/21 [5%] orthoptists; Chi-square 19.57, $P = 0.001$) [Table 1].

A significantly greater proportion of junior medical staff felt “very well” or “extremely well” prepared to provide clear information and explanations compared with orthoptists (18/24 [75%] and 2/20 [10%] for junior medical staff and orthoptists, respectively, Chi-square 21.02, $P < 0.001$). Similarly, a greater proportion of junior medical staff felt “very well prepared” or “extremely well prepared” to ask questions appropriate to the needs of patients compared with orthoptists (12/24 [50%] and 3/21 [14%], respectively, Chi-square 14.96, $P = 0.05$) [Table 2].

When asked about their understanding of patient-centered care, “meeting the needs of and respecting patients” was

frequently cited by participants (22/45 [49%]). Other themes included patient participation, patient autonomy, the patient being the priority, tailored care, collaboration, equality, considering the patient as a whole, sharing information, providing clear explanations, communicating in language the patient understands, building rapport, listening and empathy.

When asked what skill(s) or topics the trainees would like to learn more about, “how to deliver patient-centered care when busy,” “overall communication” and “communicating with patients from other cultures” were frequently cited (17/45 [38%]).

After the program

Confidence in understanding patient-centered care, and communicating with patients and families were mostly rated moderate or better (14/16 [88%]) in the intervention and all seven in the control group for both questions. The intervention group felt significantly more prepared to introduce themselves and their role (Chi-square = 11.19, $P = 0.01$), and to acknowledge waiting time (Chi-square 8.52, $P = 0.04$).

Patient practitioner orientation scale

After the program, the mean PPOS score was 3.72 for the intervention group compared with 3.84 for the control; the difference between groups was not significant ($t = 0.88$, $P = 0.39$). There was also no significant improvement in mean PPOS score for the intervention group (mean change = -0.17 , $t = -1.17$, $P = 0.27$).

Communication assessment tool

After the program, the mean CAT score for the intervention group was 3.43 compared with 3.49 for the control; the

Table 1: Confidence in patient-centered care and communication before the program (n=45)

Question	Rating scale				
	Very low	Low	Moderate	High	Very high
In terms of your understanding of patient-centered care, overall, what is your current level of confidence?					
Junior medical staff	2	3	15	4	0
Orthoptists	2	7	9	3	0
In terms of communicating with patients and families, overall, what is your current level of confidence?*					
Junior medical staff	0	1	9	13	1
Orthoptists	2	9	9	1	0

*Difference between junior medical staff and orthoptists; $P=0.001$

Table 2: Preparedness to provide clear information and ask questions before the program (n=44)

Question	Rating scale				
	Poorly	Somewhat	Adequately	Very well	Extremely well
How well prepared do you feel to provide clear information and explanations?*					
Junior medical staff	0	1	5	16	2
Orthoptists	2	7	9	1	1
How well prepared do you feel to ask questions appropriate to needs?#					
Junior medical staff	0	0	12	10	2
Orthoptists	2	7	9	2	1

*Difference between junior medical staff and orthoptists; $P<0.001$, #Difference between junior medical staff and orthoptists; $P=0.05$

difference between groups was not significant ($t = 0.88$, $P = 0.37$). However, there was a small but statistically significant improvement in mean CAT scores after the program for the intervention group (mean change = 0.55, $t = 3.13$, $P = 0.01$).

Program evaluation

Few ($n = 7$) participants in the control group answered the evaluation questions. No significant differences ($P > 0.05$) between the intervention and control groups were found, however the intervention group ($n = 16$) generally agreed or strongly agreed the program was well organized, useful and would influence how they conducted future consultations.

Those in the intervention group frequently cited patient respect as their understanding of patient-centered care. Other themes included the patient being the focus, tailored care, collaboration, considering the patient as a whole, providing clear explanations, communication with patients and their families, listening, body language, empathy, and efficiency. In contrast, all control participants made comments to the effect that patient-centered care was, "patient involvement in all aspects of their care."

What worked well for many participants in the intervention group was the range of speakers, the perspective of a clinician who was a patient, real-life examples, the simple and concise format, tips on dealing with waiting times and the post-it-note exercise. Five participants suggested the program could be improved with more evidence-based data on patient complaints, videos of good and bad communication with patients, more interactive exercises and the attendance of senior staff. Suggestions from the control group on what could have worked better included a better paper, more practical exercises, case-based scenarios, videos on good and bad communication and a workshop or seminar.

DISCUSSION

This study showed that an education program informed by and designed in collaboration with consumers can improve the perceptions that junior medical staff and trainee orthoptists have about patient-centered care and communication. Trainees who received the intervention program were more prepared to introduce themselves and their role to patients and acknowledge waiting time. Similarly, there was a small increase in self-perceived overall communication skills following the intervention program.

The initial higher level of confidence in communication with patients and families reported by junior medical staff may be a reflection of their experience, as they were 10 years older than the trainee orthoptists. Confidence with respect to understanding patient-centered care was not significantly different between the intervention and control groups with all participants remaining only moderately confident with the concept. However, participants in both groups were able to articulate what could go wrong as a result of poor patient

communication. This supports other research that health professionals are aware of the consequences of not involving patients, yet struggle with the delivery of patient-centered care.^[20]

Krupat *et al.* found patients were more satisfied when their doctors were more patient-centered (PPOS score of ≥ 4.57).^[15] Given the doctors in the current study were young and educated, we did not expect PPOS scores to reflect a doctor-centered approach (intervention mean = 3.72, control mean = 3.84). It is possible that because the majority of Eye and Ear patients are elderly, doctors shaped their interactions around the common perception that, "older patients prefer a relationship that is doctor-centered."^[21] In this respect, it is more important for common ground to be reached between doctors and patients when responding to patient needs.^[4,22]

The CAT focused on how well junior medical staff and orthoptic students rated themselves on key communication tasks.^[16] Mean scores after the program were clustered around the middle of the scale for both groups (intervention = 3.43 and control = 3.49) indicating participants thought they were "good" at communicating with patients and families. Analysis of these scores before and after the program found no significant differences by type of intervention or professional group suggesting that participants believed they had basic communication skills but acknowledged they could still improve. The small improvement in the mean CAT score after the program for the intervention group suggests the content and delivery of the intervention program was effective in improving self-perceived communication skills with patients. In future, it would be useful to evaluate whether or not patients also perceived an improvement in the communication skills of medical staff following the education program.

As this was a consumer driven program, comprehensive consultation with trainee clinicians was not undertaken prior to developing the intervention. However, participants were asked how future training and education could be improved. Intervention participants reported that the range of speakers and real-life and personal examples worked well, reconfirming Burns' findings that patient stories are an important and invaluable component of training.^[23] The topics identified for further modules (how to deal with and deliver bad news, dealing with difficult patients, body language, and cultural sensitivities) were consistent with obstacles to patient-centred care identified by Longtin *et al.*^[8] The suggestion by participants in this study for senior staff to attend reiterates the importance of having programs endorsed by leaders.^[24]

The findings indicate the intervention was only somewhat successful in changing knowledge and behavior of trainee clinicians toward patients and families. It is not surprising that a greater change was not seen, as changes in attitudes usually evolve over time.^[25,26]

This study was limited by a small sample size and low completion rate. Furthermore, the number of participants who completed the intervention was approximately double that of the control group, possibly due to the face-to-face delivery and interactivity of the intervention program. Another limitation was reliance on self-report. However, given the positive results from this study, we suggest a larger controlled trial is warranted, including measures of patient satisfaction with communication and the level of patient-centered care provided by clinicians.

CONCLUSION

The benefits of involving consumers in developing education programs on patient-centered care and communication include improved self-perceived knowledge and attitudes, and improved communication skills for hospital clinicians. Educational programs aimed at changing attitudes towards patient-centered care must be developed in partnership with consumers and service providers, and should be part of a long-term cultural change supported by leadership.

Acknowledgments

This project was funded by the Victorian Department of Health, Evaluating Effectiveness of Participation Project grant. CERA receives Operational Infrastructure Support from the Victorian Government. The authors wish to thank members of the Steering Committee for their advice and guidance at all stages of the project.

Financial support and sponsorship

This study was funded by a Government of Victoria, Department of Health, Evaluating Effectiveness of Participation Project Grant.

Conflicts of interest

There are no conflicts of interest.

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