

Effectiveness of training parents of beta thalassemia patients in improving medical student-patient communication: a developing country-perspective

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Abstract

Background: Patients and parents with long standing medical problems attending health care facilities over long periods on a regular basis come across medical students repeatedly. A conversation with untrained medical students is perceived as a strain by some patients mainly because they do not understand reasons for some parts of the conversation. Therefore understanding about the process of communication by patients/parents of children has considerable potential benefit to patients themselves. Once the process of the history taking is understood, patient will develop the capacity to provide more meaningful feedback to students.

Objectives: To assess parents' satisfaction of medical students' history taking behaviour and medical students' perception of outcomes following training of parents/patients with thalassaemia major in communication skills based on Calgary-Cambridge communication model.

Method: Twenty six final year medical students were assessed quantitatively and qualitatively regarding their history taking experience with twenty six patients having thalassaemia major and their parents at pre-intervention stage. The parents of these children consented for enrolment in a communication skills training programme based on Calgary-Cambridge Communication Model. Each student was permitted to engage with the same patient over the next fortnight subsequent to the intervention. Quantitative evaluation was repeated after a fortnight. Wilcoxon signed rank test was utilised for identifying statistical significance.

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Results: Concerning skills perception (self-reporting) in selected communication components, medical students scored the following before and after intervention: ability to engage with patients (69%, 97.5%, $p < 0.001$), talking with patients (60%, 93%, $p < 0.001$), discussing psychological issues (67%, 95.5%, $p < 0.001$), discussing socio-economic issues (63%, 95.5%, $p < 0.001$), physical examination (75%, 76%, $p > 0.05$), giving information (80.5%, 82%, $p > 0.05$), giving advice (73%, 73%, $p > 0.05$), learning from patients (83%, 97.5%, $p < 0.05$), and obtaining feedback from parents (70.6%, 89%, $p < 0.05$).

Conclusions: Training of parents significantly improved medical students' commitment to engaging and talking with thalassaemia patients, and discussing psychological and socioeconomic issues. It was associated with increased commitment to learning and obtaining feedback from parents.

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(Key words: Patient empowerment, medical student, patient communication)

Background

Thalassaemia presents numerous clinico-psychological challenges in affected children and adolescents spanning a patient's lifetime unless cured by successful bone marrow transplantation. It could cause deformities, retarded growth and delayed puberty¹. Though there has been a significant increase in the life expectancy of thalassaemia patients, complications are not infrequent². There is a need for better communication skills of the staff caring for a chronic disability such as thalassaemia³. Better communication skills also play a key role in arriving at important decisions such as offering bone marrow transplantation to children with beta thalassaemia⁴. In this background, the first initiative of the current study was to focus on the perception of thalassaemia patients and their parents about medical students' communication skills.

Studies have shown how patient empowerment models can aid patients with chronic illnesses similar to thalassaemia⁵. Patient empowerment or self-management is thought to be vital to sustain self-care practices and improve long-term

outcome⁶. There is scanty data on the impact of similar interventions on the health related quality of life (HRQOL) of beta thalassaemia patients. In this background, the present study also assessed the efficacy of a patient-parent communication skills training programme in improving doctor-patient communication.

Objectives

To assess parents’ satisfaction of medical students’ history taking behaviour and medical students’ perception of outcomes following training of parents/patients with thalassaemia major in communication skills based on Calgary-Cambridge communication model.

Method

Study was conducted prospectively in the University Paediatric Unit of Teaching Hospital, Peradeniya. Among thirty nine beta thalassaemia major patients and their parents initially recruited for the study, twenty six patients and their parents consented for enrolment in the communication skills training programme and participated in the intervention programme. The intervention comprised a communication skills training programme, based on the Calgary-Cambridge Communication Model, and carried out in a single day. A team of staff trained in communication training supported by paediatrician and medical educationist contributed as resource persons to the programme.

Twenty six final year medical students, who had interviewed and examined at least three patients with beta thalassaemia within the preceding 2 weeks, were assessed qualitatively and quantitatively on their experience by the

researchers at the pre-intervention stage. Their experience following encounter with recruited 26 young people/ parents were recorded at pre-intervention level. Each student was permitted to engage with same patient over the next fortnight following the intervention. Quantitative assessment was repeated at the end of the fortnight. Wilcoxon signed rank test was used for identifying statistical significance.

In addition, patient’s perception was assessed utilising a pre-tested questionnaire by the investigators of the study. Twenty six student-patient/parent encounters were independently assessed by the patient/ parent and a senior medical professional (paediatric registrar/ paediatric consultant) by direct observation utilising a pre-validated structured check list. Parent, senior medical professional and medical student rated their experience on a Likert scale ranging from 0–10 (0 – least satisfied, 10 – most satisfied) and percentages were calculated based on individual scores retrospectively. The study was approved by the Ethics Review Committee of the Faculty of Medicine, University of Peradeniya

Results

Parents’ evaluation

Patients’/ parents’ (n=26) perceptions regarding communication with medical students were evaluated quantitatively using a structured checklist. All patient/parent – medical student encounters were independently rated (from 0 to 10) by senior medical professionals. Table 1 shows parents’ evaluation and satisfaction of medical students’ communication skills.

Table 1: Parents’ evaluation and satisfaction of medical students’ communication skills (n=26)

Patient – medical student encounter	Parents’ level of satisfaction (%)
Talking to medical students	86
Physical examination	74
Discussing psychological problems	85
Discussing economy related problems	79
Receiving advice	89
Learning from patients	89
General satisfaction	87

Independent evaluation by parents and senior medical professionals

Table 2 shows independent simultaneous evaluation of specific components of the process of communication skills by parents and senior medical professionals. Key issues included blood

transfusions (86%, 94%), iron chelation (93%, 100%) and carrier screening (93%, 94%), Five percent of parents and 7% of senior doctors were not satisfied with overall performance of the medical student.

Table 2: Independent simultaneous evaluation of specific components of the process of communication skills by parents and senior medical professionals (n=26)

Item of communication	Rating by parents (%)	Rating by senior medical professionals (%)
Self-introduction	95	93
Friendliness	88	92
Enough time to express concerns	97	92
Clarity of questions	95	95.3
Clear explanations	97	91.8
Addressing key issues	89	97
Addressing patients' ideas and concerns	85.6	87
Addressing family problems	86	96
General satisfaction	92	90.1

Qualitative evaluation of medical students at pre-intervention level

Five focus group discussions were conducted recruiting five to six medical students in each group (n= 26). Many students believed that it was difficult to elicit psycho-social health related information from some patients / their parents. Focusing more on factual information, and failing to build up enough rapport and professional relationship, were seen as barriers for eliciting this information. Further, students perceived that asking sensitive information from patients/their parents in detail will upset them when these questions were asked repeatedly by several students. Therefore, they either avoided or asked for only limited information or asked in detail only if the directive came from either patients or their parents. The students also accepted the fact knowing limited information regarding patients' psycho-social health will limit the chances of directing them to appropriate support services as health care providers.

Most students described themselves as being nice and friendly towards thalassaemia patients and

their parents. However, many students started asking disease related information straight after introducing themselves and obtaining verbal consent. Only a few students paid attention to starting the conversation with general questions that related to well-being and comfort which could well have put the patient / parent at ease. Receiving feedbacks on communication experience was rarely practised by medical students. History taking was seen only as a time limited task to elicit disease and its management related information by some medical students. Several students believed that getting only factual information from patients / their parents and thanking them would be enough to complete the history taking task. Some students were less insightful regarding the patients'/ parents' perspective and the potential negative impact of projecting questions relating to psycho-social health on patients with chronic illnesses.

Quantitative evaluation of medical students at pre-intervention and post-intervention stages

Table 3 shows pre- and post-intervention self-reporting scores as reported by medical students with respective probability (p) values.

Table 3: Pre- and post-intervention self-reporting scores as reported by medical students with p-values

Item of communication	Pre-intervention (%)	Post-intervention (%)	p-value
Ability to engage with thalassaemia patients	69.2	97.6	<0.001
Talking with patients	60.0	93.2	<0.001
Discussing psychological issues	67.1	95.5	<0.001
Discussing socio-economic issues	63.1	95.5	<0.001
Physical examination	75.2	75.8	>0.05
Giving information	80.4	82.0	>0.05
Getting advice	73.0	73.2	>0.05
Learning from patients	83.0	97.6	<0.05
Getting feedback from patients	70.6	88.8	<0.05

Discussion

Patient engaging in health care is regarded as the "blockbuster drug of the century"⁷. It can potentially lead to improved health outcome, better patient care, and lower costs⁸. A patient with a chronic disease is faced with many therapy options and self-care challenges requiring healthcare

knowledge, capability of navigating services and health care providers, and a proactive approach to engage with health professionals⁹. A doctor's communication skills include the capability of gathering information to facilitate accurate diagnosis, appropriate counselling, giving treatment options, and establishing caring

relationships with patients¹⁰⁻¹². Most previous research has studied the effect of training and empowering health professionals in communication skills for building up better doctor-patient relationships^{13,14}. However, communication skills have a tendency to decline with time, and doctors in training often lose their focus on holistic patient care¹⁵.

Though much attention has been paid to physicians' communication, hardly any attention has been paid to patients' communicative contributions to medical interview¹⁶. Empowering patients with chronic illnesses who have frequent encounters with health professionals, to be better communicators, can have a significant impact on decision making, self-care and overall satisfaction about health care. Patients who communicate well with their doctor will probably share pertinent information for correct diagnosis, follow advice, and adhere to prescribed therapy¹⁷⁻¹⁹. The current study evaluated medical students' ability to perform structured medical interviews which were rated subsequently by parents and senior health professionals. Most components in communication skills were given a high rating by both parents and senior paediatric doctors. However; skills of discussing psychological and economic issues, addressing patients' ideas and concerns, and physical examination skills left more room for improvement. The possible reasons for higher satisfaction rates could be due to regular training and assessment of communication skills in the medical curriculum and medical students' awareness that they were being assessed during these encounters. Non-satisfaction of a few should energise us to improve the teaching of communication skills to medical students. Training of patients in communication skills is vital to enhance patient participation¹⁶. Patients, who ask questions, elicit options, express opinions, and state preferences are known to have better health outcomes than those not doing so²⁰.

In previous studies in patient communication skills training, more attention has been paid to question-asking^{21,22}. Scanty attention has been paid in patient communication skills training to provision of information by patients, though this is known to play a central role in doctors' decision-making²³. In some studies, provision is addressed minimally by encouraging patients to report symptoms clearly and completely^{24,25}, but in other studies provision is not included at all in the intervention. In the current study, empowerment of thalassaemia patients / parents and training communication skills was based on the Calgary Cambridge Model. The training of patients / parents significantly improved medical students' commitment in engaging and talking with thalassaemia patients, and discussing

psychological and socioeconomic issues. It was also associated with increased commitment with learning and getting feedback from patients.

Available data suggest that patient communication skills training enhances physician-patient communication and promotes health outcomes¹⁶. Several studies which have looked into long term outcomes of patient communication skills training have reported increasing compliance with recommended therapy and follow-up^{26,27}. Since there is only limited literature available on this important aspect of patient management in the current setting, the authors suggest further studies.

Conclusions

Medical students' perception of ability to engage with thalassaemia patients, talking with patients, discussing psychological and socio-economic issues related to patient care can be significantly improved by training of patients / parents based on Calgary-Cambridge communication model.

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