

Effect of immunization counseling skills training in third-year medical students

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Abstract

Background: In India, the coverage of immunization is low due to low morale and lack of information. Parents who refuse to vaccinate their children or do not comply with the immunization schedule of their children may not get comprehensive information on immunization. It can be termed as the failure of patient care on the part of the doctors. In present medical education curriculum, little emphasis is given on teaching counseling skills to students who have very few opportunities to learn the things that impact doctor–patient relationship.

Objective: To evaluate the effect of counseling skills training on immunization to third-year medical students.

Materials and Methods: This study was conducted during August 2013 to December 2013 on 38 third-year medical students. Immunization counseling skills of the students were assessed before and after the training by the observers and standardized patients according to the close-ended structured questionnaire.

Result: The observers and standardized patients noted that due to counseling skills training more students were developing rapport with patients, were making them feel comfortable, and there was information sharing ($p < 0.001$). After training more number of students were listening to mothers, not interrupting them, encouraging them in decision-making, and giving follow-up advice on immunization ($p < 0.01$). The students' feedback showed that there was need of learning counseling skills training and role play was an effective learning method that had boosted their confidence in counseling.

Conclusion: Effective counseling skills of medical students are necessary for their professional development, better doctor–patient relationship, and increase in knowledge of parents about immunization leading to increased immunization coverage.

KEY WORDS: Immunization, counseling skills, doctor–patient relationship

Introduction

Communication skills are fundamental to medical practice. Effective communication skills benefit physicians^[1] and help to improve health outcome in patient care.

The doctors exercise an authoritative role and issue orders to their patients by virtue of the technical superiority, knowledge, and skills. But some individuals may not be prepared to invest the doctor with full authority and this may lead to conflict between the doctor and the patient.^[2]

Counseling is essential component of the communication. Counseling is face-to-face communication by which health-care provider helps the person to make decision or solve a problem and helps people to make choices that suit them.^[3]

Counseling in the public health setting can be a challenging and rewarding process: challenging because it requires the use of skills such as assessment, treatment planning, counseling methodology, and referral and rewarding when a counselor sees individuals regain control of their lives.

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A decrease in health-care utilization related to physician's communication practices is known.^[4]

According to NFHS-3 (National Family Health Survey 3), only 43.5% children are fully immunized and immunization coverage in India is far from universal.^[5] Low level of immunization coverage is due to low morale, lack of information, and many factors leading to vaccine-hesitant parents.^[6,7] Public trust in vaccines is highly variable and building trust depends on understanding perceptions of vaccines and vaccine risks, historical experiences, religious or political affiliations, and socioeconomic status.^[8,9] Health professionals have a central role in maintaining public trust in vaccination, including addressing parent's concerns. Structured approach is recommended to assist professionals in advocating respectful interactions that aim to guide parents toward quality decisions.^[10]

Most parents recognize that immunization is important for their children's well-being but are also concerned about vaccine safety.^[11-13] Parent's interactions with health professionals is a critical factor shaping parental attitude to vaccination.^[14]

In present medical education curriculum, little emphasis is given on teaching communication skills to students. Very few opportunities are available for students to learn the things that impact doctor-patient relationship. Communication skills are enhanced by introducing various teaching techniques along with role play.^[15,16] The most effective point in time to learn these at medical school is probably during their clinical training.^[17] Parents who refuse to vaccinate their children or not complying with the immunization schedule of their children may not be getting comprehensive information on immunization. It can be termed as the failure of patient care on the part of the doctors.

The future doctors need to be trained in counseling skills, therefore this study was undertaken to evaluate effect of counseling skills training in third-year medical students.

Materials and Methods

This interventional study was conducted during August to December 2013 in Department of Community Medicine, Shri Bhausaheb Hire Government Medical College, Dhule, Maharashtra, India. Initially, training was given to the four faculty members of Department of Community Medicine and to four standardized female patients as mother of unimmunized child. In this study, 38 third-year students participated voluntarily.

A close-ended structured checklist was prepared for observers and standardized patients. Pretraining assessment of counseling skills of students on immunization case scenario related to unimmunization of child was done by the observers according to the checklist. The standardized patients also recorded their observations on the checklist provided to them. Trainers for counseling skills training were faculty members from Department of Community Medicine. Two lectures with the help of audiovisual aids of 2-h duration were conducted on counseling skills of immunization for study participants. Contents of the lecture were mainly about rapport

building skills with mothers, effective communication, greeting the mothers, developing sympathetic attitude, information sharing and advise about follow-up, and dealing with side effects. Some skills of counseling were shown by role play and videos on counseling scenario differentiating between good and bad counseling skills. The students were assessed according to the close-ended structured checklist by observers and standardized patients. The student's feedback about the experience and benefit of teaching methods was collected. The study was approved by institutional ethical committee.

The data were analyzed using Statistical Package for Social science (SPSS) software, version 16. Pre- and post-training counseling skills of medical students were compared using χ^2 -test at 95% level of confidence.

Results

The observers noted that more students had greeted mothers, tried to make them feel comfortable, listened carefully to them, and did not interrupt mothers' conversation during communication. The counseling training had statistically significantly ($p < 0.01$) increased students' counseling skills with raised proportion of students checking mothers' knowledge and understanding about immunization, tried to get more information from mothers, and encouraged mothers to reach decision. There was lesser number of students having judgmental attitude toward mothers' situation. Also higher proportion of students had verbal communication about the information sharing about immunization, communicating its probable side effects, and advise about management of common side effects and follow-up visits.

More students were confident about tackling the counseling of unimmunized child's mothers and felt more competent about immunization. After the training session, there was improvement in students for helping mothers to reach decision about immunization, confidence in counseling, and the knowledge competency about immunization. After the training on counseling, observers noted that improvement in all counseling skills findings was statistically significant ($p < 0.05$) [Table 1].

Due to the training session on counseling skills, standardized patients noted the improvement from 27 (71.1%) to 30 (78.9%) students about greeting mothers, from 30 (78.9%) to 35 (92.1%) in making mothers feel comfortable, and from 15 (39.5%) to 31 (81.6%) in listening carefully to mothers. Improvement due to the learning session was noted from 17 (44.7%) to 30 (78.9%) students about not interrupting mothers, from 14 (36.8%) to 32 (84.2%) trying to get more information from them, and from 28 (73.7%) to 35 (92.1%) having sympathetic attitude toward them. Before to after evaluation of training session had also caused improvement in encouragement to mother (26.3% vs. 81.6%), ability of communicating side effects (55% vs. 76.3%), advice on follow-ups (44.7% vs. 76.3%), and confidence of students about information of vaccination in students (39.5% vs. 73.7%). There was statistically significant ($p < 0.05$) improvement in notable

Table 1: Effect of counseling training session according to observer

Observer's findings	Pretraining frequency (%)		Posttraining frequency (%)	
	Yes	No	Yes	No
Greeted mothers*	14 (36.8%)	24 (63.2%)	31 (81.6%)	7 (18.4%)
Made mothers feel comfortable***	28 (73.7%)	10 (26.3%)	34 (89.5%)	4 (10.5%)
Checked mothers' understanding***	11 (28.9%)	27 (71.1%)	22 (57.9%)	16 (42.1%)
Listened carefully**	19 (50%)	19 (50%)	32 (84.2%)	6 (15.8%)
Did not interrupt*	12 (31.6%)	26 (68.4%)	29 (76.3%)	9 (23.7%)
Tried to get more information***	14 (36.8%)	24 (63.2%)	31 (81.6%)	7 (18.4%)
Sympathetic*	28 (73.7%)	10 (26.3%)	35 (92.1%)	3 (7.9%)
Encouraged mothers to decide***	27 (71.1%)	11 (28.9%)	30 (78.9%)	8 (21.1%)
Judgmental attitude***	33 (86.8%)	5 (13.2%)	11 (28.9%)	27 (71.1%)
Provided detailed information**	12 (31.6%)	26 (68.4%)	27 (71.1%)	11 (28.9%)
Communicated side effects***	22 (57.9%)	16 (42.1%)	31 (81.6%)	7 (18.4%)
Advice of management of common side effects***	14 (36.8%)	24 (63.2%)	36 (94.7%)	1 (2.6%)
Advice on follow-ups***	22 (57.9%)	16 (42.1%)	27 (71.1%)	11 (28.9%)
Helped mothers to reach decision***	1 (2.6%)	37 (97.4%)	16 (42.1%)	22 (57.9%)
Confidence of students***	24 (63.2%)	14 (36.8%)	28 (73.7%)	10 (26.3%)
Competency***	17 (44.7%)	21 (55.3%)	19 (50%)	19 (50%)

The difference between pre- and posttraining is significant as * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

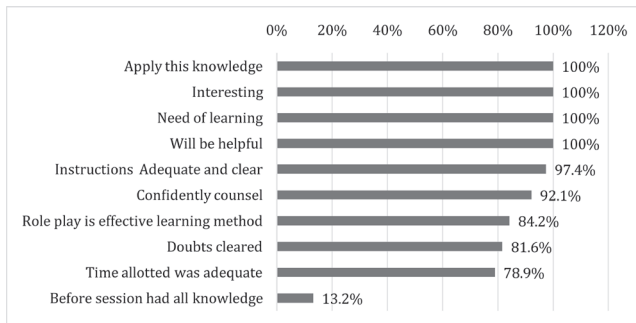


Figure 1: Students' feedback on teaching counseling skills.

attributes of communication skills felt by standardized patient after the training session [Table 2].

The students' feedback [Figure 1] showed that after training session of counseling skills, 37 (97.4%) students found the instruction about session clear, 38 (100%) felt that there was need of learning counseling skills, 32 (84.2%) felt role play is effective learning method, and only 5 (13.2%) thought that before session they had all knowledge about the topic. Thirty (78.9%) students felt that time allotted was not adequate, 31 (81.6%) got their doubts cleared, 35 (92.1%) felt that they can confidently counsel, and all 38 (100%) felt that the session was interesting and they would apply knowledge at other places and it will be helpful in patient care.

Table 2: Effect of counseling training session according to standardized patients

Standardized patients checklist	Pretraining frequency (%)		Posttraining frequency (%)	
	Yes	No	Yes	No
Greeted mothers***	27 (71.1%)	11 (28.9%)	30 (78.9%)	8 (21.1%)
Made mothers feel comfortable***	30 (78.9%)	8 (21.1%)	35 (92.1%)	3 (7.9%)
Listened carefully*	15 (39.5%)	23 (60.5%)	31 (81.6%)	7 (18.4%)
Did interrupt*	17 (44.7%)	21 (55.3%)	30 (78.9%)	8 (21.1%)
Tried to get more information*	14 (36.8%)	24 (63.2%)	32 (84.2%)	6 (15.8%)
Sympathetic*	28 (73.7%)	10 (26.3%)	35 (92.1%)	3 (7.9%)
Encouraged mothers**	10 (26.3%)	28 (73.7%)	31 (81.6%)	7 (18.4%)
Communicated side effects***	21 (55.3%)	17 (44.7%)	29 (76.3%)	9 (23.7%)
Advice on follow-ups**	17 (44.7%)	21 (55.3%)	29 (76.3%)	9 (23.7%)
Confidence of student about information**	15 (39.5%)	23 (60.5%)	28 (73.7%)	10 (26.3%)

The difference between pretraining and posttraining is significant as * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Discussion

Immunization is a universal movement that has been preventing children from life-threatening conditions and reducing the morbidity and mortality due to many diseases. In India, under Universal Immunization Program vaccines for six vaccine-preventable diseases (tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis, and measles) are available free of cost to all in government hospitals. But still coverage of routine immunization is low in the country.

This study shows that unimmunization of children is due to the communication gap between the health professionals and the parents. It is noted that there are vaccine-hesitant parents that need to be counseled.^[6-12] Parents should be assisted in understanding that rarely occurring risks associated with vaccines need to be weighed against the risks associated with the natural infection.

In parental refusal for routine childhood immunization, physicians focus on parental counseling, decision-making, and continuing the physician-patient relationship helps to initiate increased confidence in immunization programs.^[7]

The counseling skills training session has improved greeting of mothers, making them feel comfortable, and communicating side effects to them, which were highly statistically significant ($p < 0.001$).

Haq *et al.*^[1] noted that physician benefits from effective communications by increased satisfaction, efficacy, and reduced malpractice claims.^[1]

Ability to encourage mothers, advice on follow-ups, and confidence of students about information were statistically highly significant ($p < 0.01$). Also improvement in ability to listen carefully, not interrupting, and trying to get more information from parents was statistically significant ($p < 0.05$).

As there was lack of proper communication and counseling skills in students before the training session, ideal role play and standardized patients provided opportunities for students to observe and discuss their own performance about counseling skills. Students develop communication skills by observing others and then practicing these skills during their ward cases where they can receive feedback.

In this study, students' training about counseling skills caused improvement in support to patient in reaching decision about immunization as well as confidence in counseling knowledge competency about immunization.

Counseling skills entail committed listening skills, empathy, knowing human nature, timing, and analogy.^[9]

Physicians' ethical duty is to assess how much information parents have and to explore the values and beliefs that underlie their views about immunization. The study proved that physicians should fill the gaps in parent's knowledge about potential benefits and harms associated with both immunization and choosing not to immunize and make an evidence-based medical recommendation.^[7,11]

Immunization study showed that parents make decisions in the child's best interests that are affected by value systems,

religious and other beliefs, perceptions of risk and benefit, and other considerations.^[7,9]

In this study, attitude of increased number of students was sympathetic, supportive, cooperative, and patient listening toward patients after the training.

It is known that physicians must inquire about their patient's and parent's beliefs in a respectful manner, maintain an open and understanding relationship with families, and use their role in providing continuing care as an opportunity to educate families and continue discussion. Parents make good decisions regarding the health of their child. Respectfully disagreeing with parents while continuing to treat their child provides an opportunity for the physician to build trust and perhaps ultimately change the parents' views about immunization.^[7]

According to Leask *et al.*,^[9] regarding vaccination of children, 20%–30% parents are "hesitant," 2%–27% are the "late or selective vaccinator," and <2% are "refuser" of all vaccines. In these attitudes, the health professionals should build rapport, accept questions and concerns, and facilitate valid consent.^[10]

Poor communication can contribute to rejection of vaccinations or dissatisfaction with care whereas effective interaction can address the concerns of vaccine-supportive parents and can motivate a hesitant parent toward vaccine acceptance.^[14]

Vannice *et al.*^[12] showed that mothers were more likely to respond positively to questions and statements supporting vaccine safety and importance after reading the vaccine information sheets with improved attitudes, thus illustrating the importance of engaging the parents in the vaccine discussion beyond providing the required written information.

Attitudes, beliefs, and behaviors indicative of vaccine safety concerns contribute substantially to underimmunization in the United States.^[13]

Within medical curriculum, early intervention on patient-physician communication had promoted and improved the communication skills in medical students. The findings are in line with the results of Hausberg *et al.*,^[15] who found training embedded in clinical contexts to be more effective than training with a more theoretical focus. Training enabled students to acquire specialized competence in communication through the course of a newly developed training program.^[15] Similar to the findings of Nestel and Tierney,^[16] role play was found to be effective in the acquisition of communication skills in medical students. The session of role play was self-actualization, which with the training session has statistically significantly improved counseling skills of students. Ultimately, there was improvement of the counseling skills of students related to immunization.

Conclusion

Effective counseling skills of medical students are necessary for their professional development, better doctor-patient relationship, and increase in knowledge of parents about immunization leading to increased immunization

coverage. Communication between health provider and seeker is enhanced fulfilling the health-care objective. Thus, it will help in achieving universal immunization against preventable diseases in children.

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