



**Effect of Audio-visual interventions on awareness and attitudes towards communication skills among undergraduate dental students in Mangalore- A before and after comparison study**

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**Abstract:** Communication is a two-way process in which ideas are exchanged and shaped. A healthcare practitioner may meet patients from various socio-economic backgrounds. Therefore, it becomes an area to be appreciated in healthcare education at the undergraduate level.

**Context:** Clinical communication is an acquired skill, not a personality trait. It must be taught, learned, and practiced. With a minimal emphasis on soft skills, assessments in dental education have historically tested students' capacity to master facts and practical abilities. However, clinical communication skills development has been acknowledged as an essential component of a healthcare professional's education.

**Methodology:** Subjects were sent a CSAS questionnaire after their consent. After assessing the response, subjects were divided into groups and shown videos on effective communication with patients in a clinical setup. After the students had viewed these videos, the same CSAS questionnaire was sent online as post-test feedback. Students' attitude towards the need for a communication skills course was assessed by CSAS, along with the Likert scale.

**Statistical analysis used:** Data analyzed using SPSS version 24.0 (SPSS Inc., Chicago, IL, USA) and presented. The significance level was set to  $\alpha < 0.05$ .

**Results:** Students felt it's always better to learn how to communicate with patients in clinical dentistry after seeing AV materials on communication skills.

**Conclusions:** Interprofessional education (IPE) on communication skills improves the soft skill required for active interactions with peers, patients, and families. For this, a module for dental students that emphasizes the needs and gaps in the existing curriculum is required.

**Key-words:** Communication Skills, Audio-Visual Intervention, CSAS Scale, Dental Graduates

**INTRODUCTION:** Effective communication between healthcare providers and patients can impact patient experience and general health outcomes <sup>[1]</sup>. Good communication skills thus become a crucial component of health care services, as it helps in proficiently handling patients <sup>[2]</sup>. Communication Skills (CS) can be taught explicitly during class activities or inadvertently through instructor modeling and mentoring <sup>[3]</sup>.

It has been noticed that students' communication abilities are more potent after communication skills learning (CSL) experiences. The National Medical Commission of India has decided to implement the AETCOM (Attitude, Ethics, and Communication) module in all medical schools nationwide in 2020, focusing on foundational Patient Care courses in years one and two. With a similar thought, a circular by the Dental Council of India dated 1<sup>st</sup> July 2021 emphasized the need to train dental college teachers in pedagogic methods and establish Dental Education Units in every dental college.

Most studies published in dental journals have concentrated on all other aspects of the dental curriculum, and little is known about dental undergraduates' perception of patient management skills <sup>[4]</sup>. Even fewer studies have been conducted on the dental undergraduates' perspective on the need for communication skills <sup>[5]</sup>.

The Communication Skills Attitudes Scale (CSAS) created by Rees, Sheard, and Davies and published in 2002 <sup>[6]</sup>, has been widely used for measuring health professionals' attitudes toward learning communication skills. The present prospective study explored the perspectives of undergraduate dental students of Manipal College of Dental, Sciences Mangalore, using CSAS scale.

## **SUBJECTS AND METHODOLOGY:**

### **Study Design, Setting, and Sampling**

This interventional cross-sectional study recruited a convenience sample of undergraduate students attending the fourth year of dentistry at Manipal College of Dental Sciences, Mangalore. The inclusion of fourth-year undergraduate dental students was on the basis that by the end of the

undergraduate program, students should have acquired and demonstrated proficiency in communication skills (CS) and be able to provide advice and explanation to patients and their families and relatives.

A cluster sampling was undertaken, and the strategy of sample size calculation was based on the statistical validation of the Communication Skills Attitude Scale (CSAS), i.e., item-subject ratio, and was within the range of 1:20, as the literature suggests <sup>[6]</sup>. Accordingly, the required sample size calculated was 108 to compensate for non-respondents.

#### Measurements, Data Collection, and Ethical Approval

An English self-administered questionnaire assessed students' attitudes toward communication skills using the Communication Skills Attitude Scale (CSAS) <sup>[7]</sup>. The CSAS is a validated, well-established instrument for assessing CS.

The questionnaire was preceded by a cover page that stated the study's aims, anonymity and confidentiality of the responses, and the voluntarism of the participation. In addition, the ethical committee that approved the study and the contact details of one of the team investigators for any queries was made available. It took approximately ten minutes to fill out and was sent electronically via a WhatsApp message linked to a Google form. The responding students were instructed on completion filling the form, to submit the web form to the web server. This latter inserted the collected data into an Excel spreadsheet that stored the data for retrieval and analysis.

#### Scale for Communication Skills and Attitudes (CSAS)

The CSAS is the most extensively used and validated scale <sup>[7]</sup> and was created to measure attitudes toward communication skill learning. It is most specific to the teaching and learning of communication skills. The CSAS consists of 26 components, each with 13 items, and uses a two-factor scale with positive and negative attitudes toward improving communication skills. The Positive Attitudes Scale (CSAS-PAS) items are positively worded (for example, "I must have good communication skills to be a good doctor"), and the Negative Attitudes Scale (CSAS-NAS)

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items are negatively worded (for example, "I don't need good communication skills into a doctor"). A 5-point Likert scale (1 being strongly disagreed and 5 being strongly agreed) is used for the measurement. The poll took around 20 minutes, and students were orally urged to give themselves enough time to ponder each item. The study commenced only after obtaining clearance/approval from the Institutional Ethics Committee (Reference no: 21005).

Following the response to the questionnaire, subjects were shown four videos that stressed how to communicate with patients effectively and what attitude is to be maintained in a clinical set-up. These videos were mainly aimed at building rapport, history taking, giving patient information, and patient education. After students had viewed and interpreted the videos, the same CSAS questionnaire was given as a post-test-feedback immediately. The pre-test defined the outcome and post-test scoring difference, assessed using a standardized CSAS questionnaire under the earlier rating.

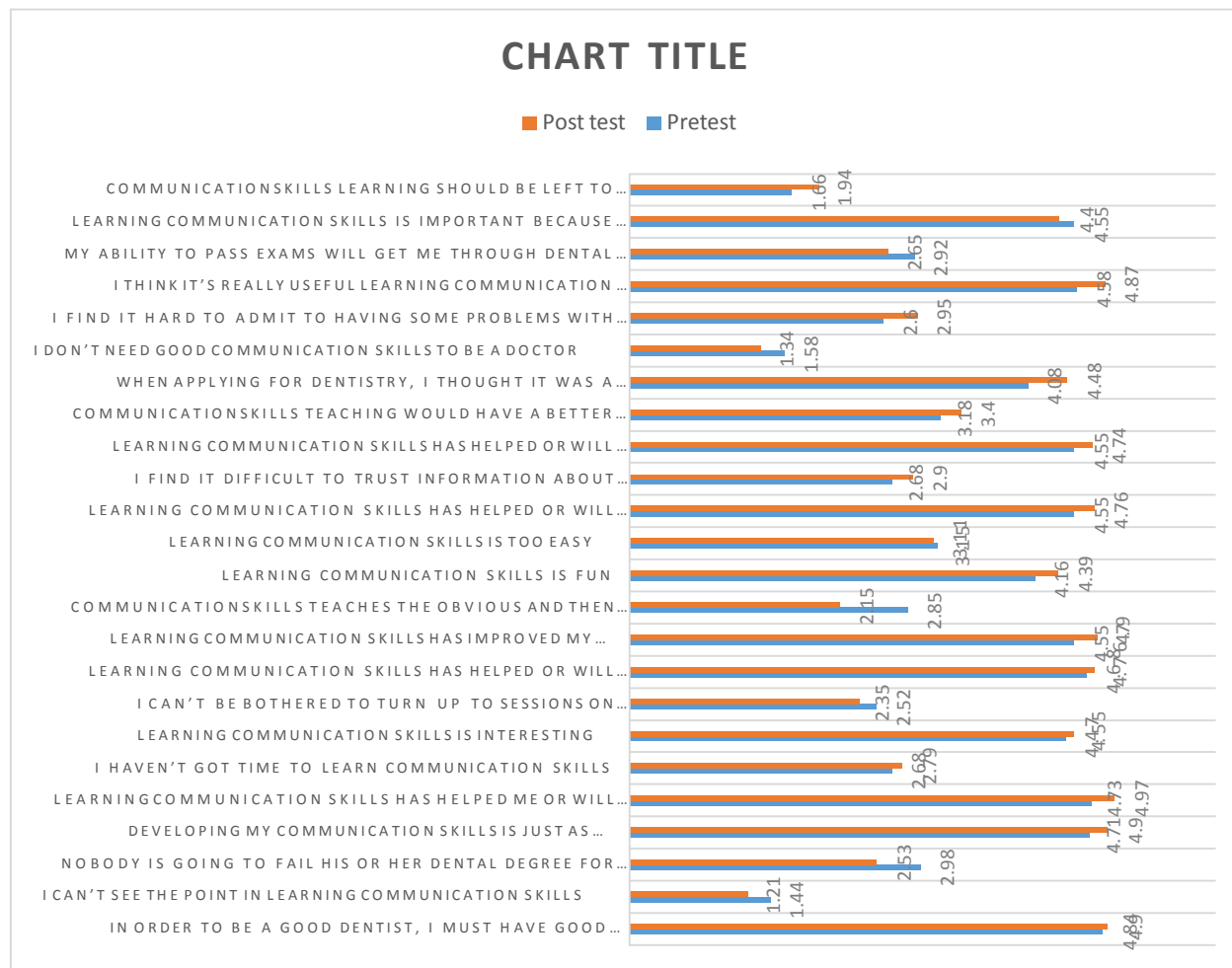
**DATA ANALYSIS:** Data were analysed using SPSS version 24.0 (SPSS Inc., Chicago, IL, USA) and presented descriptively as mean values  $\pm$ standard deviation or percentage. The significance level was set to  $\alpha < 0.05$ .

**RESULTS:** A prospective study using quantitative analysis assessed the effect of the audio-visual intervention on awareness and attitude toward communication skills among undergraduate students. Our study participants were eighty students in their fourth year of BDS studying their clinical subjects and dealing with patients daily the students felt that nobody was going to fail his or her dental degree for having poor communication skills, which showed the mean values of pre-test were higher with a difference of 0.452 and is statistically significant with a p-value of 0.037. The students also felt that developing communication skills is just as important as developing my knowledge of dentistry; the mean value of the post-test is higher with a difference of 0.194, is statistically significant with a p-value of 0.013. Learning communication skills has

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helped me or will help me respect patients. The mean value of the post-test is higher, with a difference of 0.242 is statistically significant with a p-value of 0.004. Students also felt that Learning communication skills had improved their ability to communicate with patients is higher with a difference of 0.242, statistically significant with a p-value of 0.042. Our students felt it's always better to learn how to communicate with patients in clinical dentistry after seeing the AV material on CS.

**Chart 1** shows that students initially felt that nobody was going to fail his or her dental degree for having poor communication skills. Students thought developing communication skills was just as important as developing their knowledge of dentistry. Students felt the need for a communication skills course to improve doctor-patient rapport. Post-test results indicate that students agreed that learning communication skills has improved their ability to communicate with patients. Many of our students thought it was a perfect idea to learn communication skills seeing its application in clinical dentistry.



**Chart 1-** Depicts the statistical analysis showing the distribution of scores obtained from the CSAS Scale.

**DISCUSSION:** Good communication between patients and doctors leads to excellent rapport, great health outcomes, reduced legal hassles, and high, enhancing a perfect doctor-patient relationship (DPR) [8-11]. Patients of the present era expect doctors to be available, listen to them, be supportive and empathetic, and communicate in simple language [12]. Assessing the need to learn communication skills is relevant as we are yet to incorporate CS skills in the dental curriculum have yet to be taught as a part of the formal course [13]. Hence a study was planned to understand dental students' perception towards this end.

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The present study findings indicate that the student's perception of learning CS is positive and encouraging. Students feel doctor-patient communication and professional conversational skills are essential and increasingly relevant competencies for today's dentists. Similar reports are also available in the Association for Dental Education in Europe (ADEE) <sup>[14]</sup>.

The students reported that the educational videos helped them learn about CS and its importance in patient care. After being inspired by the videos on good CS, they rated highly in the post-test scores. Students feel that learning CS is also helpful in creating an essential impact on patient satisfaction and therapy outcomes. The efficiency of diagnoses, the integrity of clinical decision-making, the success of clinical interventions, and the pleasure of patients and clinicians are all improved by good communication skills, as shown in some studies <sup>[15]</sup>. Contrarily, inadequate communication is the most frequent source of dissatisfaction with care, the spread of mistrust, including malpractice <sup>[16]</sup>, and the most frequent reason for relationship dissolution, as shown in other studies <sup>[17]</sup>. Students recommended that videos on CS helped them understand the importance of including communication training in the undergraduate program. The participating students believed their communication abilities were boosted after these video-watching sessions. The students thought that one of the essential competencies in dental education should be effective communication, which should be a part of the dental curriculum. They also felt that communication skills should be considered a core competency in dental education and needs assessment. Similar reports are also appreciated in studies on the need for CS among dental students <sup>[18]</sup>.

Our study revealed an intriguing finding, a sizable portion of our students claimed they now valued communication skills more after seeing those videos. This approach is unsurprising as it's common to experience initial student reluctance to these courses as they do not want to take the burden of yet another lesson on learning CS. Studies report that early scepticism towards learning CS may result from ignorance of the specific elements of communication skills and the use of the term "communication skills," which may give students the impression that they would be studying abilities they already possess. According to Froelich and Bishop <sup>[19]</sup>, "the ability to



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speak skilfully and intentionally seldom occurs as a gift—it is learned." The Medical Council of India has emphasized the need for communication skills training and labelled it necessary; nevertheless, this training should also be given to dental undergraduate students in the Indian curriculum <sup>[20,21]</sup>. The present scenario demands teaching communication as a 'need to know' skill to prevent assaults and litigations. An Interprofessional Communication Skills teaching module is the need of the hour and undoubtedly will change the future practitioners irrespective of the specialty.

**CONCLUSION:** Interprofessional education (IPE) on communication skills gives undergraduate students the right opportunities to learn and refine communication skills necessary for active interactions with their peers, patients, and their families. As a result, there is a need to create a module for dental students that emphasizes the needs and gaps in the existing curriculum and paves the path for students who wish to plan their further studies abroad.

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