Assessment of Role of Communication Competence in Dental Students for Acquiring Social Support

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ABSTRACT

Background: Effective primary care provision requires strong social support, which may be enhanced by communication competence. The study proposes to examine the magnitude of perceived social support and communication competence and the role of communication competence in garnering perceived social support. **Aim and objectives**: To assess communication competence of dental students and the degree of social support they receive. **Methodology**: The cross-sectional study was conducted at Sharad Pawar Dental College, Wardha. Study population comprised 400 students pursuing their Bachelor's degree (BDS). Perceived social support was measured using a Multidimensional Scale of Perceived Social Support. The communication competence was assessed by the Self-perceived Communication Competence Scale. **Results**: Communication competence was the only determinant of perceived social support. For every unit increase in communication competence, the perceived social support increased by 0.018 units. The increase was statistically significant. The model explained 13% variance in the perceived social support, which was statistically significant. **Conclusion**: Social support is crucial for self-esteem, which is moderated by communication competence. This facilitates leadership efficiency and ultimately serves in the making of a five-star doctor. The present study supports the abovementioned findings and underlines the need to work more on building graduate students' communication competence through foundation courses.

INTRODUCTION

Indian undergraduate dental curriculum is designed to make five-star doctors who are supposed to provide primary health care. The World Health Organization has propagated the concept. The five stars are five competencies that each health care provider needs to have to provide primary care. These competencies are – Care provider, Decision maker, Communicator, Community leader, and Manager.(1) Doctors being the primary health care providers, communication competence is crucial for dental students. National Medical Council has made foundation course compulsory in all the medical and dental institutions across India to instil these competencies.(2)

To be an effective and efficient care provider at the primary level, garnering social support is crucial. Communication competence may play a facilitating role in garnering social support. The present study proposes to study the magnitude of perceived social support and communication competence and the role of communication competence in garnering perceived social support.

Aim: To assess communication competence of dental students and the degree of social support they receive.
Objectives: The present study is proposed to test the following hypothesis:
"Dental students with higher Communication Competence have higher degree of social support."

The objectives are:

1. To assess the communication competence of the dental students
2. To assess the perceived social support by the dental students
3. To determine the association between communication competence and perceived social support among the dental students

MATERIAL & METHODS

Study setting, study population and study design: The cross-sectional study was conducted at a Dental College in Wardha which is situated in the Eastern part of Maharashtra. The 400 students pursuing their Bachelor's degree (BDS) formed the study population.

Sample size and sampling technique: All 400 were invited to participate in the study. This sample size was sufficient to detect the assumed 50% magnitude of communication competence and perceived social support at 5% alpha error, 10% allowable error, and 25% non-response.

Measurements: Perceived social support was the dependent variable. Perceived social support was measured using a Multidimensional Scale of Perceived Social Support (MSPSS). It is a 12-item scale that measures the three domains – significant other, family, and friends of social support. Based on the mean score, the perceived social support has been categorized as low and high.(3)

The communication competence was assessed by the Self-perceived Communication Competence Scale (SPCC). It has ten items each of which needs to be graded by the individual on a scale of 0-100. Zero implies total incompetence and 100 implies total competence. It considers self-reported competence in public, meetings, group, dyad, stranger, acquaintance, and friend communication. The scale has a reliability of 0.92. (4)

The other variables captured were socio-demographic variables such as age, sex, per capita income, education, and occupation of the father.

Data collection: Data was collected online using a Google form. Three reminders were sent a month apart to get maximum response.

Ethical consideration: The study was carried out after clearance from the Institutional Ethics Committee (IEC no. DMIHER(DU)/IEC/2023/706). Data was collected after obtaining the informed consent online.

Statistical analysis: Categorical variables such as age, sex, family income, education, and occupation were expressed in percentages. Communication competence and social support scores were categorized and expressed in percentages. To study the role of communication competence in garnering social support, multivariable linear regression was used where in the social support, communication competence, age, and income were used as continuous variables, and education and occupation of the father were used as categorical variables. Data fulfilled the assumptions of linear regression.

RESULTS

Table 1 shows the socio-demographic distribution of study subjects. Out of 400 students, 312 responded after three attempts. About 75% were 20 years or older, 86% were females, fathers of more than 83% of participants were at the least graduate, and the majority (about 97%) were in business or service.

Table 1 Distribution of study subjects

	Level	Numbers (N=312)	Proportion
Age	<20	78	24.8
	20 and more	234	75.2
Sex	Female	268	85.9
	Male	44	14.1
Father's education	less than grad	52	16.7
	Graduate or more	260	83.3
Father's occupation	Labourer	10	3.2
	Service	161	51.6
	Business	141	45.2

Table 2 shows the magnitude of perceived social support. High support was perceived by 61% of the participants from family, 54% from friends, and 48% from significant others. Overall, about 54% of participants perceived high support. Table 3 shows communication competence. All the participants had low communication competence with strangers. About half of the participants reported a low level of communication competence with friends, acquaintances, and dyads. Overall, half of them reported to have low level of communication competence.

Table 2 Magnitude of social support

	Level	Numbers	Proportion
Significant others (N=277)	Low	133	48.0
	High	144	52.0
Family (N=273)	Low	106	38.8
	High	167	61.2
Friend (N=275)	Low	125	45.5
	High	150	54.5
Overall (N=277)	Low	127	45.8
	High	150	54.2

Table 3 Magnitude of communication competence

	Level	Count	Proportion
Public (N=296)	Low	85	28.7
	Moderate	163	55.1
	High	48	16.2
Meeting (N=299)	Low	95	31.8
	Moderate	165	55.2
	High	39	13.0
Group (N=299)	Low	104	34.8
	Moderate	151	50.5
	High	44	14.7
Dyad (N=289)	Low	136	47.1
	Moderate	116	40.1
	High	37	12.8
Stranger (N=240)	Low	240	100.0
Acquaintance (N=289)	Low	123	42.6
	Moderate	132	45.7
	High	34	11.8
Friend (N=297)	Low	135	45.5
	Moderate	135	45.5
	High	27	9.1
Overall (N=308)	Low	138	44.8
	Moderate	137	44.5
	High	33	10.7

Table 4 shows the role of communication competence in perceived social support. Communication competence was the only determinant of perceived social support. For every unit increase in communication competence, the perceived social support increased by 0.018 units. The increase was statistically significant. The model explained 13% variance in the perceived social support which was statistically significant.

Table 4: Determinants of social support: multivariable linear regression (R2=13.1)

Predictor	Estimate	SE	t	p
Intercept	5.2215	1.21640	4.293	< .001
Overall communication competence	0.0180	0.00286	6.273	< .001
Age	-0.0730	0.04957	-1.473	0.142
Sex	0.2297	0.25253	0.909	0.364
Income	-0.0144	0.09812	-0.146	0.884
Father's education	-0.2155	0.24869	-0.867	0.387
Father's occupation	0.2801	0.16059	1.744	0.082

DISCUSSION

Out of the 400-study population, 312 participated in the study. Most of them were aged 20 years or older, females, with fathers who had at least completed graduation and were in service or business. About 54% had a high level of perceived social support. Only 10% of participants had a high level of communication competence while another 45% had a moderate level. Communication competence was the only significant determinant of perceived social support.

Dental professionals must be competent communicators to practice medicine effectively, and communication is one of the five required competencies identified by the World Health Organization.(1) Elements of competent communication are featured in four of the six Accreditation Council on Graduate Medical Education (ACGME) competencies.(5) Professions related to health care delivery now accept as axiomatic that good communication with patients and clients moderates or mediates positive health outcomes. The health professions value good communication. This is evidenced by the attention given to assessing communication competence and skills in the health professions. The rationale for such attention is exemplified by two prototypical types of problematic communicative encounters in

health contexts: the handoff episode and the process of medical mistake or error disclosure.(6) Communication constitutes relationships and in teamwork, relationships are vital to attaining quality and efficiency.(7) Research has examined this proposition from a variety of perspectives. The most common is examining social networks (e.g., social integration, frequency of interaction in a social network, number of social ties, etc.) or social support. Communication competence can be defined as the degree to which meaningful behaviour is perceived as appropriate and effective in a given context. To the extent that a particular individual is perceived as consistently engaging in appropriate and effective communication, that individual is likely to be viewed as a competent communicator. A person may perceive self as a competent communicator, and not perceived as competent by others, and vice versa.(6) Kerr reported that Students' communication competence and anxiety improved over time. Female students reported higher communication anxiety and less competence related to information giving. At each phase, patient-centred attitudes significantly predicted communication competence and communication anxiety.(8)

Wright et al. examined the effect of perceived communication competence on perceived stress and subsequently perceived job burnout based on Kreps's (1988) Relational Health Communication Competence Model (RHCCM). In addition, the role of social support satisfaction as a potential mediator between perceived communication competence and perceived stress was explored. The extended RHCCM was proposed and tested in a survey of 221 healthcare workers from three Veterans Administration hospitals in the United States. The results indicated support for the extended model. The study demonstrated the association of communication competence with social support.(9) Individuals with a more secure attachment style report having more extensive and more satisfying social support networks. Individuals with a more anxious or a more avoidant attachment style, by contrast, report having smaller and less satisfying support networks. Anders and Tuckers examined the role of interpersonal communication competence (ICC) as a possible mediator of the association between attachment and social support in a sample of college undergraduates. Strong support was found for the described model. Mediational analyses revealed that global deficits in ICC could account for the smaller social support network sizes and lower satisfaction levels among more anxiously attached and more avoidantly attached individuals. In addition, subsequent analyses examining specific dimensions of ICC

revealed that a lack of assertiveness in social interactions could uniquely account for the lower social support satisfaction among more anxious individuals. For more avoidantly attached individuals, smaller network sizes could be uniquely accounted for by lower levels of self-disclosure, and less support satisfaction could be uniquely accounted for by a lack of assertiveness and lower levels of self-disclosure.(10) Social support from co-workers moderated the relationship between workplace issues and mental health.(11)

CONCLUSION
Social support is crucial for self-esteem which is moderated by communication competence. This facilitates leadership efficiency and ultimately serves in the making of a five-star doctor. The present study supports the above-mentioned findings and underlines the need for working more on building the communication competence of graduate students through foundation courses.
Foundation course is compulsory to be implemented to orient students to the new curriculum, new environment of the professional education, cope up with the stress of the new environment and to develop soft skills like communication competence and leadership qualities. The present study has highlighted that the foundation course is not fulfilling its objectives and demands modification in its implementation.

RECOMMENDATION
We recommend revising the foundation course curriculum and integrating it with structured modules focused on communication competence. It should have continuous monitoring and feedback mechanism.

LIMITATION OF THE STUDY
It is a single-site cross-sectional study. To generalize the findings of the study, a multicentric study needs to be carried out.

RELEVANCE OF THE STUDY
The study explored the association between communication competence and social support among dental students and highlights the importance of building communication competence through a foundation course to become efficient care provider.

AUTHORS CONTRIBUTION
All authors have contributed equally.

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CONFLICT OF INTEREST

There are no conflicts of interest.

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