

Professional and personal enhancement: a pragmatic approach in dental education

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Purpose: Students of health education are often offended by the transitions and challenges they face while encountering diverse people, ideas and academic workloads. They may be offended because of reasons not only related to their societal background but also to their basic competence in managing transitions. In the Asian scenario, students enter the first year of professional education in their late teen age along with the definition of self which was created by their parents. There are different issues that arise in this age group that may positively shape or negatively affect the personalities of students. They need to achieve a sense of balance between personal and professional traits on their own. Several students are often unable to cultivate the expected required qualities, which leads to an abject state of mind and hinder their progress. We identified the most common personal and professional hurdles in the lives of dental students and we provided experiential solutions to overcome the hurdles by using a sociable approach through an integrated, continuing education program.

Methods: Designing and implementing a cohesive, amalgamated and inspiring personal and professional enhancement action program for dental students.

Results: Feedback from students reflected that the needs and expectations of students vary with academic phase. In addition students expressed that this program series inculcated some positive skills, and overall, they are satisfied with the utility of the program.

Conclusion: Personal and professional enhancement of students in accordance with individual needs as well as with expected requirements needs a committed administrative action plan. Our results in this context are encouraging and can be considered for application in dental institutions.

Key Words: Professional education, Personal development, Dental education, Hidden curriculum

Introduction

Education is definitely a principal driver for all-round human development; however, the personalities of students are formed by a logical integrated picture of reality and not education alone [1]. Personality is the product of the interaction of multiple factors like physical condition, mental condition, knowledge, attitude, and socio-

cultural factors among others [2]. The inability to achieve any single factor may induce a negative shift in the personality, which is more dramatic during late adolescence and early adulthood. The ability of this age group to cope with and execute the expected tasks depends on good homeostasis and guidance in the aspects of environmental and personality [3]. To prepare our graduating dental students for success as defined by current global perspectives, we designed and imple-

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mented an innovative program that directly addressed the issues which were likely to dispirit students.

Students of health-related professions are expected to learn and execute a wide range of skills to become competent. Personality informally influences the profession by shaping style, abilities, and manners [2]. To develop a richer personality and higher professional stature, an attitude shift toward dignity is needed. The perception of the educators with regard to the challenges faced by the student community and their moral responsibility in creating a win-win situation can help disadvantaged students to overcome several traumatic events in their professional life. Students acquire attitude, morale, and pride of being a health care provider from the hidden curriculum, i.e., set of influences that function at the level of organizational structure and culture [4]. The current batch of students anticipated the hidden curriculum in an increasingly interesting manner. Our experience and initial survey results with dental students revealed that emotional stability and communication skills are the fundamental qualities that need to be emphasized in different aspects. In several countries including India, pre-medical and pre-dental enrichment programs are not in practice, and hence, we implemented a noncredit, participatory action research program to support the professional and personal wellbeing of our undergraduate dental students' and optimize their performance and success.

Subjects and methods

A participatory action research program was designed to enhance the personal and professional competencies of the undergraduate dental students of our university using a flexible, interactive, and innovative approach. The dean of the Faculty of Dental Sciences structured

the program by primarily focusing on providing amalgamated, cohesive and inspiring interactive sessions. The consent to execute this program series was obtained from the chancellor of Sri Ramachandra University.

The university annually provide admission to 100 undergraduate students, and a total of 500 students undergo preclinical, clinical, and internship training each academic year. A team of faculty members (n=9), clinical psychologists (n=3), and soft skill trainers (n=3) were assigned for 3 years, on rotation basis, to conduct the program series. To identify the needs and expectations of learners, data was collected using the learner profile of the institution (which included the question, "Which type of academic and nonacademic problems would you like to solve using professional help?"). Informal interviews with students were conducted to identify the distractions that hinder their progress. In addition, valid suggestions of faculty mentors were included in the interviews. We used this data to create a theory in use model. A peculiar finding of this analysis was that the problems and needs of students varied according to their academic phase in which they were (Table 1).

The team members unanimously decided to avoid both indoctrination and standardization approaches in the program. However, they decided to effectively synchronize the context and desired outcomes both immediately and gradually. In the 4+1 year course (2 years of preclinical phase, 2 years of clinical phase, and 1-year compulsory rotating internship [CRI]), a three-phase program series was planned for 65 hours (23 hours for preclinical, 17 hours for clinical, and 25 hours for internship) per academic year, with each topic scheduled for 1 hour (Table 2). The program was started for students of the academic year 2011 to 2012 and is continuing till date, with innovative ideas. A contemporary cycle of actions, including planning for positive

Table 1. Unique Problems Faced by Our Undergraduate Dental Students

Preclinical phase	Clinical phase	Compulsory rotating internship phase
Change of environment	Approaching the faculty	Patients expectations in quality care
Deficit in parental assistance	Lack of practical skills	Financial management
Personality traits and cultural differences	Mismatch with parental expectation in progress	Preparing for unsupervised practice
Curricular overload	Peer pressure	Getting job opportunities
Task completion within assigned time limit	Stress and depression	Higher education
Inability to cope up with class and lab schedule	Keep up with targets in a timely manner	Projecting the best for success
Distraction due to electronic gadgets and fascination about selecting companion/life partner	Patient management, maintaining appointments and fulfil their needs	Receiving patients confidence, creating a good working atmosphere, and progressing in profession
Predetermined professional conduct	Effective communication with para-medical and ancillary staff members	Setting up own clinic and establishing a corporate practice
Shortfall in relaxation activities	Feedback critics	Self-updating the newer advancements in dentistry
Health issues related to changes in food preference, stress eating/dieting for beauty conscious, insufficient sleep due to curricular and personal stress	Negativism in self capabilities, lose of self-confidence, inability to accept broken companionship, emotional imbalance	Frustrations related to failures, unintentional mistakes, economic burden, exhibiting the expected life style of a doctor, building societal status
Difference in economic background between friends	Competitiveness with peer groups in work completion	Opportunities for global education and getting placement in state and central government hospitals
Getting introduced to habits like alcoholism, euphoric drugs, and pub culture by seniors for excitement	Lack of transparency in clinical examination and internal assessment	Changing the profession according to interest

Table 2. Professional and Personal Enhancement Program Plan of Our Institution

- Topics for preclinical phase: 23 hours
Transition from school to college, and from home to hostel, Infatuation—interesting facts! Learn about and from your classmates, how to make effective conversation, behavioural changes, assumed expectations of teachers on their professional students, time management, how to identify stress, stress and anger management, how to challenge the economical shortcomings and strengthen the social bonding, how to overcome addiction to gadgets, drug abuse, self-confidence and self-motivation, multiple intelligence—an overview, what is professionalism, how to prepare for summative exams, an art of developing positive attitude, Who am I?—know about your personality, personality and learning styles, how to create a win-win situation, how to create self-permeable boundaries, what is emotional well-being and how to become emotionally stable?
- Topics for clinical phase: 17 hours
Healthy life style with nutrition and yoga, goal setting, how to keep yourself organized, checklist for day-to-day activities, how to overcome peer pressure, prepare to learn new skills, memory and concentration, skill training, Know about your exam pattern, how to boost up your overall performance? Doctor-patient relationship, creative communication, how to make feelings of despair to go away, workplace skilfulness, body language, patient's expectations on their dentist, think straight—Do right: conflict management, be optimistic about the 3,600 feedback, broken bonds, and realities about relationships.
- Topics for compulsory rotating internship period: 25 hours
Bridging the gap—student dentist to dental practitioner, public expectations on a dentist, social responsibilities, financial management in clinic set-up, trading the dental equipment and materials for clinical set-up, inter personal relationship, leadership qualities, team building quality, global education opportunities, trends in health care policy, political beliefs and principles in oral health care, professional competition—how to overcome in a genuine manner? Lifelong learning, social interaction, tagline for your dreams, it's time for your placement, manners matter at the workplace, factors in decision making, focus on quality care, intimacy of the professional perfection, law and justice in healthcare practice, ethical issues in dental practice, debate on intentionality and a lack of intentionality, how to prepare for state and central public service examinations? How to approach for bank loans to set-up your practice?

changes, implementing processes, and observing the consequential desired outcomes was designed. The initial analysis and program plan was focused on 40 linked topics for preclinical and clinical phase students and 25 unlinked themes, exclusively for CRI students, to provide an exposure to enable them to become rationally well-rounded health care professionals through self-realization. The effect of disparity between espoused theories (those that an individual claims to follow) and theories-in-use (those than can be inferred from action) on dental education was also addressed to reveal the dilemmas in the minds of students. To substantiate the espoused theories, critical analysis of existing literature in the related topics was performed [5,6,7,8,9].

To evaluate the effectiveness of the program, students were encouraged to share their opinions through written feedback at any time. In addition, we took an exclusive exit feedback from the graduate students who completed their course in 2015 (having attended the program series in all three phases) using a survey tool, which comprises the following three components:

Ranking the most effective three subjects (Table 3) that influenced them with relevance to the following:

- (1) Usefulness of the topic

- (2) Newer ideas inculcated
- (3) Clarity about the issues discussed
- (4) Sequence of the content delivered
- (5) Positive impact of the program

Fifteen statements (Table 4) to evaluate the individual satisfaction rate and the responses were graded using a 4-point Likert scale (strongly agree=1, disagree=2, agree=3, strongly disagree=4). The statements highlighted the broader perspective of various interactive sessions. A summary list of the program series was also provided on request.

The three open-ended questions to analyze the impact of program were as following:

- (1) Following the program series, what changes did you notice in your personality?
- (2) Mention your most useful learning outcome.
- (3) Which of your learning do you want to practice for life?

In addition, we entered the number of participants attending each series of the program with the total number of students in each phase for comparison.

Table 3. The Three Most Effective Topics in Each Phase

Program	Ranking	Frequency	Percent
Preclinical phase (total no. of participants = 200)			
1. Self-confidence and self-motivation	I	138	69.0
2. Stress and anger management	II	115	57.5
3. Transition from school to college and from home to hostel	III	103	51.5
Clinical phase (total no. of participants = 69)			
1. Broken bonds and realities about relationships	I	118	70.0
2. Creative communication	II	116	69.0
3. How to boost up overall performance	III	111	65.0
CRI phase (total no. of participants = 78)			
1. How to overcome professional competition in a genuine manner?	I	64	82.0
2. Financial arrangement for clinic set-up & trading the equipment and materials	II	60	76.0
3. Social interaction	III	53	68.0

CRI: Compulsory rotating internship.

Table 4. Questionnaire for Individual satisfaction analysis

1. The program helped me to handle the transition from school to college environment.
2. I find it easy to understand my classmates and teachers in a right perspective.
3. I am able to effectively manage the anger and stressful situations.
4. It is possible to identify my appropriate learning method and is helped me to perform better.
5. It is possible to overcome the peer pressure.
6. I find it easy to learn and perform new skills.
7. I have no discomfort about broken affairs and able to understand the realities of relationship.
8. I realised by social responsibilities as a health care provider.
9. I am confident about my knowledge in law and ethics related to dental practice.
10. I realised the value of quality care and professional perfection.
11. It is possible for me to develop professional and leadership qualities.
12. I have good level of knowledge on futuristic professional opportunities.
13. I have an overall idea about clinical set-up (financial logistics, team work, etc.).
14. This program helped me to get an idea about many unrevealed topics.
15. Overall I am satisfied with the usefulness of program.

Grouping the statements into three domains as follows:

Personal enhancement: 1, 3, 4, 5, 6.

Interpersonal relationship: 2, 7.

Professional enhancement: 13, 12, 11, 10, 9, 8.

1. Problems encountered

1) Logistics

The time intensive nature of the program required rescheduling of the academic hours and the duration of the program was reduced on an average of 15% to 20% in both preclinical and clinical phases by integrating the overlapping topics as well as procedures by assisting the course heads in creating the most effective possible compilation of topics. This time adjustment enabled the regular participation students.

2) Manpower

To consistently work on this student welfare program, a team of faculty members who were confident of their own abilities, comfortable in seeking professional guidance as per requirement, ready to communicate with students with a positive attitude toward the process of change and progress were selected. Their “spotlight approach” in arranging each session of this series directed the future steps. To avoid the monotony in the

sessions, rotation of the team members was necessary.

Forming a vibrant team each time is difficult.

3) Monetary aspects

The event details of the program were explicated to the board of management to obtain the infra structure facilities and financial support to invite guest speakers and soft skill training professionals. Financial assistance is a major challenge in executing these types of programs.

4) The marginally negative views

Feedback remarks also included some conflicting perspectives of the program. Few students expressed their concern that the prejudicial solutions and guidelines provided hampered their uniqueness in socio-psychological dimensions of affective characteristics. However, there are no effective valid methods for measuring these variables to analyze the actual positive and negative outcome of such events. The program organizers attempted to reduce the unconstructive aspects as much as possible and implemented significant

reforms as and when necessary and reduced the chaos to a minimum.

Results

Need analysis revealed that at the entry level, students were looking for ideas to adapt to the new learning environment. Clinical phase students were expecting improvement in their individuality and guidelines to overcome tough situations. CRI students were concerned about issues that facilitate career enrichment.

On reviewing the number of participants, 78% of preclinical, 82% of clinical, and 85% of internship students attended the entire series in the program series in spite of knowing that attending the program series is optional and attendance is not mandatory. This is highly consistent with their overall attendance percentage in each phase and reflecting the interest of students in the program as well as the quality of the program.

Participating in the course-end feedback were 78

graduate students. On analysing their responses to three open-ended question, 63% of participants said that their confidence level and self-esteem improved through this program series, 72% believed that they could manage stress and emotions, and 73% stated that they are willing to practice healthy food habits and yoga throughout their life. Less than 50% of the CRI students are confident in establishing their own practice and this is a critical issue that needs to be handled at multiple levels.

To know the level of individual satisfaction, we used 15 statement questionnaire to find out the level of satisfaction on various aspects and analyzed using the 4-point Likert scale.

1. Internal consistency and stability

Cronbach's coefficient α was satisfactory: 0.6858 for 15 statements and 78 total participants.

2. Opinion on program satisfaction

One sample t-test (Table 5) revealed that the difference of observation between strongly agreeing and

Table 5. One-Sample t-Test for Opinion on Individual Satisfaction Shows Satisfaction Are at Equal to Average Level

Statement	N	Mean	SD	p-value
S1	78	3.69	0.492	<0.001**
S2	78	3.31	0.565	<0.001**
S3	78	3.23	0.579	<0.001**
S4	78	2.91	0.628	<0.001**
S5	78	2.91	0.668	<0.001**
S6	78	2.68	0.730	0.033*
S7	78	3.35	0.621	<0.001**
S8	78	3.76	0.432	<0.001**
S9	78	3.06	0.690	<0.001**
S10	78	3.86	0.350	<0.001**
S11	78	3.79	0.406	<0.001**
S12	78	2.53	0.785	0.774
S13	78	2.47	0.785	0.774
S14	78	3.38	0.564	<0.001**
S15	78	3.73	0.475	<0.001**

SD: Standard deviation.

*Denotes-significant at 5 level (significant), ** Denotes-significant at 1 level (highly significant).

strongly disagreeing individuals was found to be statistically significant for satisfaction in the topics related to transition from school to college, understanding peers and teachers, social interaction, anger and stress management, learning styles, multiple intelligence, preparation for summative exams, memory and concentration, how to preparation for the state and central public service examinations, overcoming peer pressure, realities about relationships, social responsibilities, law and justice in healthcare practice, ethical issues in dental practice, leadership qualities, team building qualities, focus on quality care, and intimacy of the professional perfection (significant at 1% level). They were also highly satisfied with the overall usefulness of the program and agreed that several hidden concepts and ideas were discussed ($p < 0.001$).

However, for topics related to the trade of the dental equipment and materials for clinical set-up, financial management in clinic set-up, global opportunities, and approach to obtain bank loans to set-up your practice, several students did not provide an appropriate report on their satisfaction, as was found from the response to statement 12 (mean \pm standard deviation [SD], 2.53 ± 0.785) and 13 (mean \pm SD, 2.47 ± 0.785). This difference of observation between strongly agreeing to strongly disagreeing is not statistically significant and $p = 0.774$ denotes that a majority of the students disagree for the level of satisfaction in these topics.

The test of significance was performed using the Friedman test between mean rates of individual satisfaction (Table 6). A majority of the statements had a mean score of more than 50%, which is more than 5 and signifies that several participants had reported a positive response as agreeing and strongly agreeing with their level of satisfaction except for statements 6, 12, 13 where the mean score was less than 50%, which is less than 5 and signifies that most of the participants disagreed and

Table 6. Friedman Test for Significant Difference between Mean Ranks towards Individual Satisfaction

Statements on individual satisfaction	Mean rank	p-value
S1	10.62	<0.001**
S2	8.03	
S3	7.62	
S4	5.83	
S5	5.87	
S6	4.96	
S7	8.50	
S8	11.01	
S9	6.73	
S10	11.70	
S11	11.29	
S12	4.36	
S13	4.10	
S14	8.54	
S15	10.85	

**Denotes-significant at 1 level (highly significant).

Table 7. Friedman Test for Significant Difference between Mean Ranks towards Factors of Individual Satisfaction

Factors of individual satisfaction	Mean rank	p-value
Personal benefit	1.59	<0.001**
Interpersonal relationship	2.30	
Professional growth	2.11	

**Denotes-significant at 1 level (highly significant).

strongly disagreed with their level of satisfaction. This difference of observation was found to be statistically significant at $p < 0.001$ among the groups.

The 15 statements were divided into three domains and subjected to the statistical measurement of satisfaction level (Table 7).

It was found that in relation to the personal enhancement domain, the mean score (mean \pm SD) was found to be 1.57375 ± 0.77425 , whereas for the interpersonal relationship domain, the mean score was 3.3 ± 0.593 and for professional enhancement domain, the mean score was 3.745 ± 0.57366 .

3. Samples of exemplar statements

1) Preclinical phase

"I worried about how to start my college life, spend time in the campus and organize myself for this professional life. Being the first generation person in my family entering the health professional education, I was challenged by many obstacles. This program series helped me considerably to accept the college environment and dentistry with a high level of confidence..."

"I realized that the most important things to adapt myself to the situation are my mindset and willpower."

"Great! This program series modified my views and answered my subconscious level uncertainties."

2) Clinical phase

"...finally my emotional state is balanced and now I can greet my friends without any embarrassment."

"I realized how important it is to effectively communicate with my colleagues and teachers to get an optimal level of comfort. This helped me indirectly to overcome the peer pressure and sort out many issues."

"...being an introvert, I struggled a lot to overcome the bitter experience of my puppy love. The talk given by Prof. X cleared my illusion about marital life and made me realize that a better choice is still waiting. Personally, I feel we need such programs to clarify our uncertainties which cannot be sorted out by any other pleasant approach."

3) CRI phase

"My intuitive imagination about the whims and fancies of clinical set up and independent practice is enlightened with real world experiences and shaped my future."

"...It is unbelievable. Now my outlook is perfectly fitting with this challenging profession and social life. I will be successful."

Discussion

In the current educational set-up, the intellectual development and ability of students are restricted by focused preparation for a specific academic level [10]. This limitation is an obstacle for the success of their careers. Dentistry involves applying pedagogical principles of psychology, sociology and ethics in practice [11]. Dental institutions and students are facing considerable difficulty in effectively dealing with rapidly changing interpersonal, intrapersonal, professional, and societal scenarios [12]. To overcome these challenges, our institution made an effort which encompassed a systematic inquiry with students, creating a team of faculty members and experts in handling personal and professional problems, and organizing a noncredit based hourly program to enhance nonacademic skills.

Self-actualisation is the instinctual need of humans to maximally utilize their abilities and perform optimally [13]. Indian dental students are increasingly using the defensive reasoning process to overcome their academic and personal inabilities to cope with the academic system and are ultimately losing their professional credibility. Through our program series, we developed the trust among our students that the institution and faculty members care for them and will support them socially and emotionally.

Several students chose to study dentistry as an alternative to studying medicine [14] and expect similar training patterns in both medical and dental courses. When they were introduced to their preclinical dental lab, the extent of motor skill requirement was challenging for several students although they had good cognitive capabilities. The consistent demand for practicing newer motor skills pressurized dental students who were less competent or incompetent in performing

motor skills. They became emotionally regressive, felt inferior, and became underachievers. Technical rationality lead to “professional frustration” and further hampered their interest in attending classes and clinics [15].

Though curriculum overload is an unavoidable change occurring globally [16], it has a detrimental effect on the attitude of dental students through missing lectures and laboratory sessions, failing to complete work, and finally, dropping out. We introduced the skill of time management to our students, which helped them to effectively manage this work load.

Emotional stress in the lives of students—emotion influences the aspiration and performance of an individual and this is highly significant in the changing phase of adolescence to early adulthood. Indian students undertake their undergraduate program in this critical phase and become frustrated when events do not occur as anticipated [17]. Emotional stress, to some extent, is influenced by socio-economic factors [18]. The disparity in the economic backgrounds among the dental students and between dental and medical students, especially in nongovernmental universities offering both courses in the same campus, is an important issue that needs to be addressed openly. Although support from literature is not available to accurately explore this issue, on the basis of our experience, we addressed this issue in our program. The session on “challenging economic shortcomings and strengthen the social bonding” created in our students a silent acceptance regarding economic stratification. The abilities of students for neglecting economic differences and creating the policy that there is no campus distinction except the distinction of merit.

“Character, conduct, and capacity are everything” were strongly emphasized. We decided to nurture this concept in young minds. Nurturing this concept needed untiring and committed episodes of implementation.

Several dental graduates, though academically pro-

ficient lack soft skills such as effective communication ability, team work, and business management. In our program series, we focused on three different skill categories such as personal qualities, interpersonal skills, and additional skills (e.g., self-esteem and conflict management) necessary for our young dentists [19]. The basics of law and regulation in communicating with others, ability to execute organisational skills, flexibility and open mindedness, perfection and time management were the topics discussed in appropriate context. A dynamic approach was used to address multifaceted obstacles to enhance a positive attitude.

We received encouraging remarks from our students in view of the fact that the entire series was carried out to explore the difficulties of students and to assist them to prepare themselves more effectively.

The unsatisfactory responses to certain topics in the professional enhancement domain encouraged us to revisit the theme and method of organization. This step enabled us to plan the topics in this domain in a more promising manner. In future, workshops and trade stalls for providing real experience will be organized.

In conclusion, good personality reflects in the professional environment and hence influences the career and well being of healthcare professionals. Unfortunately, several dental and medical graduates are unable to balance their professional and personal welfare even though they are competent in clinical practice. Failure in career creates frustration in life and adversely affects the well being of healthcare providers. Hence, failure needs to be handled with maximal care. Educators should consider this concept and evolve novel models for supporting curricular activities according to academic and cultural background. Through our experience, we realized that when the hidden problems of students are solved and a positive attitudinal change sets in, they become dynamic professional.

To summarize,

- (1) Medical and dental students experience two major transition phases when they enter and leave the university. Scaling the emotional and psychological wellbeing of students in these situations is the pragmatic task for faculty.
- (2) Unexpressed perspectives and attitudes that shape the future healthcare professionals need to be addressed appropriately by the institutions.
- (3) The assessment of needs of the stakeholders and team work is mandatory in planning.
- (4) Time, manpower, and innovation is the triad to sustain quality.

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