

CHAPTER VI

SUMMARY

6.1. Introduction to Continuing Professional Development

The lifelong learning in the form of continuing professional development (CPD) has become the need of every professional. It is desirable for the dental practitioners to maintain their competency and upgrade the skills and knowledge for the benefit of the public and profession. Since there is a constant evolution of treatment options and therapeutic concepts with newer dimensions added to the professional skills and knowledge, the obligation to guarantee an up-to-date and quality dental care would be a priority for each and every dental practitioner.

6.2. Curriculum planning for Continuing Education

The planning of curriculum in education is a continuous dynamic process and should always commence with research. This is aptly applicable for Continuing Dental Education, where the dentist is free and capable to select the subject of interest, the instructor of choice, the duration and frequency of participation.

6.3. Need Assessment for Continuing Education

The learning needs can be broadly measured as the Real need and the felt need. The real need is the existing deficit in a person, groups, institutions, or society that may or may not be acknowledged by those having the need. It is usually recognized and determined by an objective observer apart from other stakeholders.

6.4. Continuing Education Overview

Continuing education is a form of post-secondary education, to obtain either the auxiliary certifications, or as requisite licensing credits mandated by various governing bodies. Various bodies, such as institutions & universities, professional bodies and associations, private companies, and even individuals, may deliver Continuing Education. Continuing Professional Development is a systematic way of learning to ensure the professional competence, up-gradation of knowledge and enrichment of skills and practical expertise, through structured / formal learning activities or self-directed / informal learning activities.

6.5. Continuing Medical and Dental Education

The profession of dentistry is changing very fast. Driven by patient's desires to enjoy optimum oral health, function and aesthetics, dentistry is witnessing a rapid and continuous development of better materials as well as techniques. Continuing Professional Development (CPD) in dental profession is highly essential to constantly apprise the skills and knowledge in order to stay proficient to accomplish their true potential.

6.6. Adult Learning concept in Continuing Education

Continuing Professional Development mainly falls into the domain of Adult Education. Learner's willingness-to-learn, self-directed learning, active participation in the process of learning and a specific focused approach to the skill and knowledge acquirement plays a very important role in Adult learning. Adult learning plays a very important role in our higher education system in general and medical education in specific.

6.7. Global Higher Education System

Today the higher education in various countries is at definite crossroads of internal dynamics and external expectations. They fascinate all the stakeholders as they see a continuous development and growth of higher education. But it is also accompanied by an endless debate about its desirability, and an enduring uncertainty or dynamics – where the magnitude of homogeneity or heterogeneity is constantly changing through general structural changes, and by consolidating the positions of these higher education institutions on the world ‘map’.

6.8. Review of Related Literature

Despite numbers of researches, books and articles published on this, we are still very far from the complete understanding of the Adult learning.

Stephen Brookfield (1995) discussed the different research areas on Adult Learning. Each area of these has its internal dynamics, but the interests and concerns of the researchers working on them overlap frequently.

Chan WC et al.(2006) did an exercise to find-out the areas of interest as well the means and modes of the study for Continuing Professional Dental Education and **Elliot R. Shulman et al.(2011)** studied the effect of a Continuing Professional Education on the knowledge and attitude regarding oral health in dental practitioners, hygienists and assistants in providing dental services to children and adolescents. **MS Hopcraft et al. (2008)** recognized that the Continuing Professional Development (CPD) to be an integral component of professional practice across almost all health discipline. More than 50% of the dental surgeons attended more than 20 hours of CPD courses. Only

one-quarter of respondents were against compulsory CPD as a prerequisite for registration.

6.9. Need of the Study

The dentistry all over the world is rapidly changing in terms of both quantitative and qualitative care. With the advent of the newer materials, instruments and techniques, it becomes necessary for practitioners to keep updated with the recent developments. The Continuing Professional Development plays an important role in this. To-date there is no published data that specifically deals with the status of continuing professional developing among Indian general dental practitioners. This study will provide information on what a model program or framework for a new age dental technology should be. This research will provide a platform for formation of guidelines/recommendations for improvement in the CDP programs in Indian scenario, if required.

6.10. Research Questions

- 6.10.1. What is the current status of Continuing Professional Development in the field of Dental Education in Gujarat?
- 6.10.2. What are the needs and requirements of general dental practitioners for their continuous professional development?
- 6.10.3. What role does CPD play and how effective are these programs? To what extent they benefit dental surgeons?
- 6.10.4. What are the standards and criteria for recognition of CDE programs?
- 6.10.5. What are the quality issues in conducting these CPD programs?
- 6.10.6. What are the standards, criteria and quality issues globally, which can be reformulated to help Indian dental surgeons?

6.11. Objectives:

- 6.11.1. To find out the current status of Continuing Professional Development in the field of Dental Education in Gujarat.
- 6.11.2. To identify the Continuing Dental Education needs and requirements of the dental practitioners in Gujarat.
- 6.11.3. To correlate the current status of the Continuing Dental Education program with the needs of the practitioners with a view of identifying the gaps.
- 6.11.4. To develop the APPROPRIATE Recommendations/GUIDELINES for conduction, regulation and accreditation of CPD programs.

6.12. Source of the Data:

The Practicing dentists within the state of Gujarat were randomly selected from the total registered practicing population of dentists in Gujarat.

6.13. Material for the study:

- 6.13.1. A mix of open ended and closed ended questionnaire for from practitioners regarding the CPD for checking Validity and Reliability.
- 6.13.2. A further refined and validated printed closed-ended questionnaire for the dental practitioners for the larger group
- 6.13.3. An open-ended interview and online communication with experts to know their view on the current status of CPD and future directions.

6.14. Methodology

The research study comprised of the questions regarding the views, opinions and preferences of the practitioners like skill, knowledge and service regarding the CPD.

The study was conducted in four phases:

i) Pilot Survey

ii) Final Survey

iii) Experts Views

iv) Recommendation

6.15. Data Analysis

The data of the study was analyzed quantitatively for each objective to find out the preferences and needs of dental practitioners for continuous professional development A) Based on choices filled by the practitioners in a questionnaire B) Based on opinion of Experts C) Based on analysis of literature and regulations in other countries. The 700 questionnaires that were found complete were gathered and analyzed. Among the 700 practitioners, 580 were general practitioners while 120 were the specialist with masters in the specific discipline of dentistry. Among the 580 general practitioners, 319 were females and 261 were males.

6.16. Major Findings of the Study:

On the basis of the data obtained, the following are the main findings of the study:

- The hours of Continuing Development Programs was analyzed to check the impact of the gender. The very high significant difference($p < 0.001$) was observed when gender comparison was done with hours of CDE received in last year.

- The Continuing Dental Education hours were analysed to check the impact of the level of degree of practitioners. High significance($p < 0.01$) was seen among general practitioners and specialists.
- The frequency of CDE was analysed taking the gender as a variable, it was observed to be statistically($p < 0.05$) significant. The frequency of CDE was analysed taking the level of degree as a variable, it was observed to be very highly significant($p < 0.05$).
- The practitioners were enquired for the important factors in deciding the CDE courses. The subject area of the course (40.7%) was the most preferred factor in selection of the course followed by instructional method (32%) and location of the course (31.3%). Many of the practitioners considered the qualification of the instructor (27%) as an important factor in selection.
- The live lecture was the most preferred method instruction (40.1%) followed by Hands-on course in clinical setting (29.7%) and weekend workshop (18.7%).
- The difficulties and hindrances pursuing the Continuing Dental Education were asked under different heads. The 418 (59.7%) participants felt that **too busy practice** was the frequent reason for not been able to attend CDE programs. When asked about the **timings of the course** as a hindrance for attending CDEs, 265 (37.9%) participants felt it is always a reason. The **time needed to travel** for the course was always a hindrance for 307 (34.9%) participants among. The **loss of income** in clinics due to unavailability while attending the programs, the 380 (54.3%) participants, which included 196 males and 185 females, felt it, as rarely been a valid reason. **The costs**

involved in travelling to the location of course were also seen as one of the major hindrance.

- The open ended questionnaire was circulated among the experts who comprised of the Administrators in Dental Council, persons holding high posts in the professional associations, Editors of the reputed journals and administrative heads of dental institutions. The experts were of the opinion that need assessment must be undertaken so that programs are structured according to the needs of general practitioners which can be designed and executed. Regular CDE program for general dental practitioners should be made mandatory for everyone. Experts also felt that anything that strains the budget is a great deterrent to attend. The nodal agencies such as National Professional Dental Associations and National Speciality Bodies should be assigned the responsibility of conducting such programs and their certification should be considered for renewal of Dental Council registrations. Some of the experts also suggested to have online courses and better use of ICT to minimise the problem of logistics and costs.

6.17. Suggestions for Future Studies

The results of this research will provide baseline information regarding the status of professional development in Gujarat. Since the dental course, curriculum, regulations are broadly uniform over the country, these results can be extrapolated to the scenario in our country. The regulating bodies, councils and the organizers of professional development programs will be able to formulate appropriate approaches and topics during conducting the courses.

6.18. Recommendations

The outcome of this research along with analysis of the literature, guidelines and expert opinions have brought to light some points to be taken into consideration while planning the professional development courses.

- The detailed curriculum planning is required before scheduling any professional development programs.
- Identify the needs and interest of the dental practitioners.
- Various factors like degree of specialization, years of practice, gender, past CDEs attended play vital role in selection of professional development courses.
- The sound scientific basis and quality standards for the program should be maintained.
- The policy makers, educators and program planners should have detailed understanding of the Adult learning, various theories and factors influencing adult learning.
- They should clearly define all learning objectives of program.
- There should be appointment of nodal agencies like State Dental Council who will look after the quality of CDEs.
- The Mandatory Continuing Dental Education program should be planned and also be considered for licensure renewal.
- The resource person designated to teach in CDEs should be well-qualified by education and experience in the subject matter of CDE.
- Organisers of CDE program should carefully plan the financial and budgeting aspects.

- The educational methods used should be apt to the learning objectives of the program.
- The publicity material for brochure used is informative and not misleading.
- CDE program conducted should be free from any conflicts of interests.
- It is very important to have proper feedback and evaluation mechanism.

6.19. Conclusion

Research and analysis of the status of continuing dental education in the state of Gujarat has provided the baseline data and provided the overview on to the choices preferences and hindrances in pursuing professional upgradation for dental practitioners. Results of our study have clearly demonstrated that the level of degree has definite influence on the choices for professional development. It is also observed that the timings for conduction of CDE programs has great impact on attendance.

The assessment of the needs and preferences of the practitioners including the preferred learning method, preferred timing of learning is very important in planning the curriculum for the CD courses. Assurance of the quality in these programs is of vital importance and the regulating bodies such as Dental Council and professional associations such as Indian Dental association should play a pivotal role in improving Continuing Dental Education programs in our country.