SUSTAINING PROFICIENT PRACTICE THROUGH CONTINUING EDUCATION:
PERSPECTIVES OF DENTAL HYGIENISTS

A Thesis
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In Partial Fulfillment of the Requirements
for the Degree of
Master of Human Resource Development
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by
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The purpose of this study was to investigate the relationship between maintaining clinical competence and continuing education in the practice of dental hygiene. Six dental hygienists with a minimum of five years of experience and having just completed a continuing education reporting period participated in the study. Dental hygienists who practice in both rural and urban areas of Saskatchewan were represented. In a focus group interview, the participants were asked to describe a competent dental hygienist, how individual dental hygienists maintain competency and how continuing education activities contribute to that competency.

The findings are discussed in light of the current literature on continuing competency and continuing education. The findings indicate that interpersonal and self-assessment skills are critical components of competent dental hygiene practice. Dental hygienists use self-assessment daily to determine areas of their individual practices that require attention to maintain their proficiency. Certain types of continuing education activities are useful to remedy self-identified deficiencies in practice. These activities include group discussions and problem solving, and are applicable to the settings in which individual dental hygienists practice.

The importance of teaching self-assessment skills in preprofessional education, and of ensuring continuing education activities have a mode for transferring learning into practice have implications for the dental hygiene profession. The study concludes with recommendations for further study arising from the findings. Further research is required to investigate the effects of continuing education on client outcomes and the reliability of self-assessment.
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CHAPTER 1
INTRODUCTION AND OVERVIEW

In the past decade, there have been sweeping changes in dental technology and in the dental hygiene knowledge base. These changes have challenged dental hygienists to keep informed about new methods, materials and consumer products. Continuing education programs can aid dental hygienists in incorporating the new knowledge, skills, materials and technologies into their current practice, and many types of programs exist to provide continuing professional education. This thesis explores the usefulness of current continuing education activities for dental hygienists in the province.

Background Information

In 1997, the profession of dental hygiene in Saskatchewan became self-regulating, which meant that, through their professional body, dental hygienists became responsible for legislating their own scope of practice, for granting licenses to qualified practitioners and for ensuring that licensed dental hygienists were providing safe, effective oral care. Mandatory Continuing Education, requiring a dental hygienist to attend continuing education activities in order to qualify for a license, was the vehicle chosen to ensure client safety. Under the previous legislation, dental hygienists had to obtain mandatory continuing education points, but with self-regulation, the Saskatchewan Dental Hygienists Association (SDHA) revised the Continuing Education Guidelines (Appendix A). The new policy came into effect in 1998.

The new policy states that dental hygienists in Saskatchewan must obtain a minimum of 36 continuing education points every three years in order to maintain
eligibility for licensure. Ultimately, one goal of this mandatory continuing education policy is to protect the public, while ensuring that dental hygienists maintain the skills they obtained in school, as well as keep abreast of changes in oral health care delivery methods and procedures. The profession and the public need assurance that dental hygienists engage in activities that will help them to continue to provide safe and effective dental hygiene care.

The continuing education points may be obtained by attending dental workshops and conferences, participating in study clubs, making presentations on dental hygiene topics, or by completing self-study activities. Each hour of activity is worth one continuing education point. Of the 36 points, 18 must be earned from engaging in activities directly related to clinical dental hygiene practice (SDHA, 1998).

From my past involvement with the Continuing Education Committee, I have noted that dental hygienists choose courses to attend on the basis of what happens to be offered, the location where it is offered, whether they may need points at a particular time, as well as what interests them personally. The committee selects topics for courses on the basis of what speakers are available, what’s ‘new’ in dentistry, and who can be “coerced” into working on a Saturday, since this is the day when most of the activities are scheduled. Periodically, hygienists attending the Annual General Meeting (AGM) of the SDHA are asked what topics they would like to learn about the following year, but their suggestions are not always considered due to the limited number of speakers available locally and the costs associated with bringing a speaker to Saskatchewan. The College of Dental Surgeons, the Saskatchewan Dental Assistants’ Association, the Saskatchewan Dental Therapists’ Association and the Saskatchewan Dental Hygienists’ Association
collaborate to provide workshops in various locations throughout the province. However, most activities take place in Regina or Saskatoon.

In 1981, the Department of National Health and Welfare, as part of a national program to develop young professions in Canada, formed the Working Group on the Practice of Dental Hygiene. In 1983, an Advisory Committee to the Working Group was established. Its mandate was to develop clinical practice standards for dental hygienists. Clinical Practice Standards for the Dental Hygienist was first published in 1988, and distributed to every dental hygienist in Canada (Feller & Forgay, 1989). According to Feller and Forgay, one important function of the standards was to enable individual dental hygienists to assess their own practice in reference to validated standards of oral care. The assessment could then be used to change the structure, process or outcome of their clinical practice to meet the current standard. The development and application of clinical practice standards is an essential step in the assurance of quality care (Forgay, Wener, Feller & Halowski, 1993). The national standards were revised in 1995 and in 2002 to reflect current practice (Canadian Dental Hygienists Association, 2002).

From the above discussion, it would seem that the approach to continuing education in the field of dental hygiene is based on a theoretical perspective of adult education where dental hygienists are seen as self-directed learners. According to Knowles (1990), one of the key principles of adult education is that adults should be involved in assessing, planning and evaluating their own learning. The Continuing Education Guidelines of the SDHA allow latitude for dental hygienists to choose the topics they would like to learn about, and the methods by which they wish to learn them.
The existence of Continuing Education Guidelines, through the SDHA, seeks to ensure that licensed dental hygienists in Saskatchewan will engage in activities related to the continued best practice of dental hygiene. The Practice Standards, as provided by CDHA, give dental hygienists a measuring stick against which to compare their practice and identify areas needing updating or improvement. This study seeks to explore how dental hygienists choose continuing education activities to attend, and how, in their opinion, the activities then translate into improved clinical practice.

Research Purpose and Objectives

The general purpose of this study was to examine the significance of continuing education in clinical competency of dental hygienists. The research investigated how dental hygienists feel they maintain clinical competency and whether a mandatory continuing education system contributes to this competency. Specifically, the objectives of the study were to: a) explore how dental hygienists maintain clinical competency after graduation; b) find out whether continuing education activities contribute to such competency and identify what kinds of activities are preferred; c) explore how learning continues after graduation; and d) provide an understanding of this phenomenon through the principles and practice of adult education.

A focus group was used to explore these questions. A focus group was appropriate for this study because it allowed for the researcher to gather perceptions, which were an important aspect of the study, and because participant’s responses could be explored and clarified for further understanding. During focus group proceedings I was able to reword questions and probe on critical issues so as to obtain relevant
responses. A focus group format was also chosen because it enabled me to hear from participants from various parts of the province. The entire session was videotaped and transcribed. Participants were provided an opportunity to review their transcript and revise the wording to reflect their thoughts and perceptions accurately.

The focus group was composed of experienced dental hygienists with practices in both urban and rural areas in Saskatchewan. The dental hygienists had a minimum of five years of experience, and had completed a continuing education reporting period on December 31, 2001, and therefore had recently participated in continuing education activities.

Significance of the Study

Health Professions Acts in several provinces in Canada are requiring the regulatory authorities to develop quality assurance programs. This study is significant to dental hygienists in Saskatchewan in that it identifies what activities dental hygienists believe contribute to best practice. The SDHA now has guidelines that can be followed when planning continuing education courses to ensure that the courses offered are more likely to contribute to maintaining clinical competency. Dental hygienists can be confident that the chosen activities will contribute to improved practice as well as assist in maintaining a license. Dental hygienists are in the best position to determine what helps them to continue to provide quality dental hygiene care beyond graduation and should be proactive in developing their own quality assurance program.

Several bodies should derive benefits from the research. The SDHA Continuing Education Committee will receive feedback on the perceived value of continuing
education activities. Certainly the findings will act as a basis for preliminary discussions on quality assurance and should promote interest in developing a quality assurance program for the profession of dental hygiene. Dental hygiene educators will note how practitioners rely on self-assessment skills, which validates their inclusion in a dental hygiene curriculum. The results may reinforce the participants’ own efforts in maintaining clinical competency or may stimulate participants to become more involved in the design and delivery of their continuing education. As well, participants can contribute to research done in Saskatchewan with Saskatchewan dental hygienists.

Statement of Research Questions

The following questions guided the study:

Questions on Continued Competency

1. What constitutes ‘continued competency’ within the dental hygienist context?
2. How can this competency be determined?

Questions on Continuing Education Activities

1. What activities are preferred? Why?
2. What activities lead to a change in practice? Why?

Questions on Maintaining Competent Dental Hygiene Practice

1. How do skills change following graduation?
2. What prompts change?
Definition of Terms

**Best Practice** — services or processes that expert opinion has shown to be effective through measurable results (Austin Travis County Community Action network, 1999).

**Competence** — level of skill and knowledge (and may include attitude) necessary to perform work efficiently, according to the standards of a given profession or occupation at a given time; the ability to perform at an agreed level of proficiency, consisting of knowledge, skills, attitudes and professional values (Jarvis, 1990).

**Continuing education** — learning activities that are taken up after full time schooling is complete, or those that are taken up after the completion of initial education; with respect to dental hygienists, activities such as attending conferences and short courses, viewing videotapes and participating in study clubs.

**Dental hygiene practice** — a collaborative relationship, in which the dental hygienist works with the client, other healthcare professions, and society in general, to achieve and maintain optimal oral health as an integral part of well-being. Practice environments include private practice, institutions, community health, educational institutions, and the military (Canadian Dental Hygienists’ Association, 2002).

**Proficiency** — the capability to perform effectively when the opportunity occurs.

**Quality assurance** — a process whereby the structure, process and outcome of a service is assessed, and strategies for improvement are implemented.
CHAPTER 2
REVIEW OF THE LITERATURE

In this chapter, two major bodies of literature will be reviewed. First, empirical studies and theoretical discourse relating to continuing education, continuing competency and quality assurance are examined. Next, the principles of adult education and how adults learn are investigated in the context of continuing professional education. Literature from the United States and from other health professions is included due to the limited amount of dental hygiene research in Canada.

Continuing Competency

Continuing competency is learning following completion of a course of study. In science-based professions, what was learned at graduation will be outdated within ten years (Beatty, 2001). Society expects a professional to maintain current knowledge and skills (Carlson & Kalkwarf, 1997). Continuing professional education is the mechanism many professions use to ensure that practitioners remain informed of changes in health care delivery, methods, and products (Asadoorian, 2001).

The dental health professions are investigating quality assurance and continued competence issues with the intention of providing quality care and protection of the public. Providing high quality care is a key mission of the relatively new profession of dental hygiene (Fried, DeVore, & Dailey, 2001). Keeping abreast of new products, instruments and techniques is one step towards this goal. The Saskatchewan Dental Hygienists’ Association (1998) states that, “continuing education, or educational and informational renewal, will assist hygienists to remain current in their role as clinicians,
educators, and client advocates” (p. 1). It is assumed that participation in continuing education activities translates into providing quality care.

Continuing Education Methods

Continuing education is a planned, organized, learning experience intended to enhance previously learned knowledge, skills, and attitudes or to provide new content to meet career goals (Knowles, 1984), and mandatory continuing education is a policy whereby members of a profession are required to attend continuing education activities as a requirement for maintaining licensure. Health professions in all 50 states in the United States use mandatory continuing education as a basis for relicensing members (Cervero, 1988). In Saskatchewan, the licensing bodies of the College of Dental Surgeons, the Saskatchewan Dental Assistants’ Association, Saskatchewan Dental Therapists’ Association and the SDHA require mandatory continuing education.

The goal of mandatory continuing education is protection of the public. The SDHA seeks to accomplish this goal by ensuring that practicing dental hygienists are maintaining the skills obtained in school, and are keeping informed of changes in oral health care delivery methods and procedures. The field of dental hygiene has not been exempt from the sweeping technological, social and professional changes of the past decades. The profession has an obligation to ensure that dental hygienists have access to activities that will help them to continue to provide safe and effective dental hygiene care.

Several studies have investigated the connection between continuing education activities and retention and renewing of skills and knowledge possessed at graduation.
In the first study, which was conducted to determine why dental hygienists attend continuing education activities, Body found that eighty-six percent of 195 Ohio dental hygienists felt that attending continuing education activities increased the quality of the dental hygiene care that they provided. However, more recently, in a survey of perceived continuing education needs of dentists in Alberta, Sandilands concludes that a “lack of consensus regarding the role of CPE (Continuing Professional Education) in changing practice and enhancing competence was evident” (p. 97). She recommends that the focus of continuing education offerings be changed from the Update model, in which previously learned concepts are reviewed and revised, to the Performance, or Problem-based model, where participants actively engage in learning, to illuminate the connection between activities and maintaining competence. Cervero (2000) echoes this recommendation, saying that continuing education should be integrated into individual and collective practice.

Generally, members of the dental hygiene profession view mandatory continuing education positively (Bateson, 1990; Asadoorian, 2001). However, in the field of nursing, mandatory continuing education has been resisted in some states because the nurses feel there is no established link between increased positive outcomes and continuing education. Only one state has reported a decrease in disciplinary actions since implementing mandatory continuing education (Eustace, 2001). Since society also expects health care professionals to maintain their knowledge and skill base (Carlson & Kalkwarf, 1997), mandatory continuing education is a mechanism that can realize that expectation.
Dental hygienists in Saskatchewan can obtain their continuing education points from several methods. Attending one day courses is the most common, (C.M. Hamil, Personal Communication, April 8, 2002) while other methods include attending conferences, viewing videotapes, participating in a study club, giving a presentation, serving as an executive on the SDHA or CDHA, or writing an article for a publication. Of course, all these activities must relate to best practice dental hygiene.

Covington and Craig (1998) surveyed 130 dental hygienists in northern British Columbia to determine their preferred information-seeking practices in terms of maintaining competence. The respondents cited participating in discussion groups and reading journal articles as preferred activities to access information for continued competency. Respondents noted that cost and travel were factors that influenced their choices. Similarly, a survey of rural nurses in Pennsylvania (Beatty 2001) revealed that time, city driving and weather were the main concerns in accessing continuing education. Hegge, Powers, Hendrickx and Vinson (2002) also discussed the availability of continuing education for rural nurses, finding that nurses attend when convenient, often without regard for their continuing education needs. Very likely, dental hygienists in rural Saskatchewan have similar concerns.

Several recent articles have documented the growth of online continuing education for dental hygienists (Covington & Craig, 1998; Fehrenbach, Baker-Eveleth & Bell, 2001; Schleyer & Pham, 1999). An advantage of this method is that learning can be formally evaluated before credit is awarded. However, the studies also revealed that respondents had difficulties in gaining access to the material. Computer literacy skills are required to locate appropriate courses and to participate interactively.
Of the above studies, only online continuing education methods allow for measurement or evaluation of learning. Members of the SDHA must provide proof of their participation in continuing education activities, but do not have to demonstrate enhanced competence before their points are awarded. The points are credited if a member has simply attended an event. Measuring continuing professional learning is a challenge, but one that, if addressed, would serve to validate the activities, providing that such activities target competence.

Waddell (2001) has studied measurement issues relating to continued competence in the nursing profession. She recommends that before evaluating learning, four areas must be considered: the construct to be measured, the measurement paradigm, selection of a measuring tool, and interpretation of the data. Also, she suggests that providers of continuing education collaborate with nurses to establish standards of practice, identification of competencies and development of tools to measure those competencies.

The difficulties in measuring continued competence start with the concept of competence itself. Low and Kalkwarf (1996) describe professional competence as, “The ability to use knowledge, skills and judgment associated with the profession to perform effectively in the domain of possible encounters defining the scope of dental practice” (p. 385). Milgrom, Chapko, Milgrom and Weinstein (1985) relate that continuing competency is used as a synonym for quality assurance and implies remaining current and possessing sufficient skills. In the dental hygiene field, Pimlott, Chambers, Feller and Scherer (1985) describe competence as the ability to perform technical tasks skillfully, while Chambers and Gerrow (1994) describe a competent practitioner as one who is able to function in context.
This last description introduces a situational dimension to the concept of competence. Abruzzese (1996) claims that competence without productivity is useless. del Bueno (1997) believes that to be operational, measurement of competence must be specific to the setting. In a later article, Waddell (2001) summarizes some difficulties in measuring continued competence, such as the validity of self-reports and the lack of data related to long-term effects of professional development. She concludes that standards of practice must be applied, the particular setting must be considered, and that qualitative tools would be useful to measure dynamic processes in changing environments.

The most common tools used to measure continued competence appear to be self-assessment and peer review (Asadoorian, 2001; Low & Kalkwarf, 1996; Saporito, Feldman, Stewart, Echoldt, & Buchanan, 1994). Practice audits and case presentations have also been used in dentistry to a lesser extent (Carlson & Kalkwarf, 1997; Low & Kalkwarf, Saporito et al.). Both the professions of dentistry and dental hygiene have proposed peer review as a means of quality assurance (Brothwell, 1998; Fried et al., 2001). Fried et al. found that dental hygienists in Maryland value self-assessment and use it daily as a means of quality assurance. Brothwell states that peer review can be advantageous in ensuring quality of service.

Forrest (1995) outlined the need for both self-assessment and peer review skills to be taught and practiced in dental hygiene schools. Their inclusion in a curriculum is especially important, as the American Dental Hygienists Association has adopted guidelines for peer review and standards of practice (American Dental Hygienists Association, 1985). She found that fewer than 44 percent of dental hygiene graduates
reported engaging in peer review activities, and fewer than 66 percent recalled being taught self-assessment skills while in school.

Waddell (2001) found that peer review and a systematic self-assessment incorporated into annual performance review provides nurses with the best opportunity to assess and improve their practice. Furthermore, she claims that self-assessment supports the concept of individual professional accountability for maintaining continued competence. Houle (1980) includes peer review and self-assessment as one of the three frames of reference for evaluating continuing professional learning.

Quality Assurance

Quality in health care has been defined as the extent to which health services meet the specified goals and standards of the accepted norm for good care and health service (Health Services Directorate, 1993). This definition implies that the level of quality care is not static, but changes as society’s norms change. It also situates professional competency within the practice setting. However, in her analysis of quality assurance programs for dental hygienists in Canada, Asadoorian (2001) states that until the 1950s, quality assurance programs were concerned only with structures, such as facilities and equipment. By 1980, most provinces and states had some kind of mandatory continuing education legislation in place to address the issue of quality assurance. Presently, most quality assurance programs focus primarily on process, as opposed to structures or outcomes, as an indicator of quality care. Applied to dental hygiene, processes would be the actual activities that dental hygienists perform, such as infection control, oral health
education or care planning. Quality would be measured by the appropriate application of a process, not on whether the clients’ oral health improved.

Asadoorian (2001) describes quality assurance programs as those activities that promote the advancement of the profession, as well as ensure competence. The importance of quality assurance in the dental hygiene profession cannot be underestimated. Asadoorian relates that consumers of dental hygiene care have limited ability to judge the quality of technical skills, and poor quality hygiene care can affect overall health. Pimlott et al. (1985) promote quality assurance programs as being meaningful for the dental hygiene profession, because such programs reflect a concern for the needs of consumers and demonstrate a commitment to providing quality care. Forrest (1995) states that quality assurance activities are inherent in a profession, and the field of dental hygiene should not be an exception.

In the United States, there are programs intended to promote competence in health care. Carlson and Kalkwarf (1997) suggest that without such programs, the dental profession could not assure society that members have contemporary knowledge and skills throughout their practicing life. Saporito et al. (1994) describe a program in New Jersey, where dentists who participated in a self-administered quality assessment felt that the exercise increased their awareness of the quality of their practice. They were then able to take appropriate measures to address the practice’s weaknesses. Carlson and Kalkwarf see continued competency as a responsibility of the profession and discuss several models, including written or oral exams, simulated clinical assessment, testing after continuing education programs, and in-office audit. Lau (1997) relates the actual experiences of the California Dental Association with their Quality Improvement through
Lifelong Learning Program (QUIL3). They discovered that dentists strenuously resisted any program that measured competency and was linked with licensure. The dentists felt that it was intrusive, and that a quality improvement program should focus on improvement of the profession as a whole and not concentrate on finding the “bad apples.” QUIL3 remains a program for dentists to use to voluntarily assess their practice. It includes a Clinical Practice Evaluation and a Knowledge Evaluation, but the results of the evaluations remain confidential. QUIL3 contrasts with proposed programs in the nursing profession. Exstrom (2001) outlined the state board’s role in continued competency to be that of regulating nursing practice, issuing licenses to qualified practitioners, reviewing qualifications and assuring competence. She describes competence as a partnership among nurses, educators, professional organizations and regulatory bodies.

Dental hygienists in Canada have formally discussed quality assurance since the development of the Clinical Practice Standards in 1985. In fact, the definition and application of practice standards by a profession are an essential part of quality care (Forgay, Wener, Feller, & Halowski, 1993). The initial publication of the practice standards coincided with a series of workshops across Canada to facilitate their application. Using a self-assessment tool, dental hygienists could investigate the structure, process and outcome of their individual practices, identify areas of improvement and formulate a plan to effect the improvement. However, Asadoorian (2001) found that the Practice Standards for dental hygienists in Canada are underutilized in quality assurance programming. Ontario is the only province where registrants are required to measure their practice against the (provincially modified) standards.
The studies referred to above have investigated various methods that professionals may use to continue their professional education and to ensure continuing clinical competency. Often, cost and accessibility influence the choices that dental hygienists make regarding activities in which to participate. Online learning can be evaluated with written tests. The opinions of peers are valuable in assessing practice. However, further research is required to ascertain how continuing education activities actually translate into improved practice.

Adult Education

The ability of a mandatory continuing education program to maintain the quality of care provided by its members of a profession may depend on the how closely the program follows the principles of adult education. An understanding of the characteristics of adult learners and how adults learn assisted in the interpretation of the research results.

Selman, Selman, Cooke and Dampier (1998) describe adult education as an intellectual process by which adults seek to learn new information. The term used to describe this process is andragogy. This description is an appropriate beginning for a discussion of adult education as it relates to continuing professional education for dental hygienists.

Andragogy is a term first used by M. Knowles to describe how adults learn (Merriam & Caffarella, 1999). It contrasts with pedagogy, the more traditional process of helping children learn (Knowles & Associates, 1984). The basic difference is that andragogy is centred on the learner and is learner-directed, while pedagogy concentrates
on the teacher and the teacher’s activities in the traditional classroom setting (Merriam & Caffarella).

Andragogy is based on several assumptions about adults and how they learn. First, adults have a self-concept of being responsible for their own learning (Knowles, Holton & Swanson, 1998). In their maturity, their self-concept has changed from dependence to self-directing (Knowles, Holton & Swanson). This self-direction means that adults can participate in their own needs assessment program planning and evaluation (Merriam & Caffarella, 1999). However, Collins (1987) states that mandatory continuing education policies diminish this principle by removing the self-directed aspect and making participation compulsory. Interestingly, the ability to be self-directed may also be responsible for those adults who have unsuccessful learning experiences, because many learning activities are based on the traditional pedagogical model, and the resulting conflict between the teacher-directed method and the self-directed learner can cause learners to drop out (Knowles, 1990). Alternatively, if an adult has poorly developed self-directing skills, a collaborative learning situation can be intimidating (Knowles, Holton & Swanson).

A second assumption is that adults have experiences, which, in many ways, comprise their self-identity, and cannot be ignored (Knowles, 1984). In an educational setting, these experiences should be used as the foundation on which to build programs, thus making them richer resources than the texts (Knowles, 1990). Using peer assessment as part of adult learning, however, may be a challenge since the experience that learners have also brings with it biases (Knowles, 1990). As well, there will be vast differences in preferred learning methods and learning environments.
The third assumption is that adults become ready to learn when confronted with a problem, which is usually an incident in their social or occupational role that cannot be solved within the adult’s current capabilities (Houle, 1980). Adults will undertake educational activities to address their needs and hence, to solve their problems. Cervero (1988) describes this problem-solving process as transforming an indeterminate situation into a determinate one – one that the practitioner knows how to solve. The third assumption, describing when an adult will learn, is closely linked with a fourth assumption - that adults have a problem-centred orientation to learning (Knowles, 1984). To be successful, an educational activity must assist adults in developing skills that they can use immediately and that will contribute to their positive self-image.

The last assumption, basically a summation of the previous four, states that the motivators for adults to learn are internal (Knowles, 1984, 1990). Some internal motivators are career advancement, self esteem or the desire for social relationships (Boshier & Collins, 1985). It therefore follows that these assumptions should be taken into consideration when planning continuing education for those in professional practice.

Continuing Professional Education

Houle (1980) defines continuing professional education (CPE) as all efforts to make learning available for active professionals. He differentiates between learning and education, by explaining that learning is an active process whereby people gain knowledge and skills through experience or study. Ultimately, CPE should facilitate the acquisition of knowledge or skills by adults. Like Knowles (1984), Houle says that adults will seek learning to help in solving problems, and will become involved in CPE to gain
more complex knowledge and become more sensitive to ethical problems encountered in work life.

Houle (1980) continues his discussion with an explanation of three modes of learning that may be utilized by professionals. The first mode, inquiry, is used to create new ideas and techniques. Instruction, the second mode, distributes established skills and knowledge within the professional community, whereas the third mode, performance, is used to apply the knowledge and skills in everyday practice until they become routine. Houle explains that all changes to professional practice occur via these three modes.

Houle (1980) then uses the three modes to discuss the achievement of goals of lifelong education in terms of a profession. He states that technological advances have an impact on the conceptualization of the profession by its members, and the three modes of learning are useful in facilitating the adoption of the new opinion. A second goal of lifelong education, which is sustaining proficient performance, can be addressed by applying practice to theory, resulting in a deeper understanding. Another goal, which is problem solving, can be reached by assisting practitioners to develop methods to apply evidence-based techniques to all situations. A fourth goal of CPE is to put the new knowledge and skills into everyday practice.

Cervero (1991) also discusses the connection between theory and practice. He outlines four possible relationships: 1) practice without theory; 2) theory as foundation for practice; 3) theory interpreting practice; and 4) theory and practice are indivisible. He concludes that the best relationship exists when theory and practice are indivisible because all knowledge comes from social relations. McAllister, Little and Pribe (1990) describe this relationship, praxis, as a state in which both theory and practice are
continually modified by the other so that knowledge is always incomplete, and both theoreticians and practitioners play a role in creating such knowledge. Stated another way, knowledge is not static, but is created according to the experiences and negotiation of the learners (Galbraith, 1991). Jarvis (1990) further explains that adult professionals bring a cognitive perspective that allows them to reflect on their experiences to make use of existing rules and categories. Additionally, Collins (1987) asserts that knowledge is acquired in action that incorporates critical thinking.

The concept of praxis underlies Cervero’s (1988) description of Schon’s model of professional practice in which continuing education should encourage participants to reflect on their own tacit theories. The model also describes ‘reflection in action’, as a skill possessed by a professional.

These descriptions lead into a discussion of constructivism, a learning process in which people use their experiences to construct their own meaning, and thereby make sense of those experiences (Merriam & Cafarella 1999). The social nature of this process is also of essence. Constructivists believe that because learners are the best judges of the gap between current and desired proficiencies, they should design their own curriculum, guaranteeing that it will be relevant to their needs, and enabling the reflective thinking that is essential to learning from the constructivist approach (Galbraith, 1991).

On a less rigorous note, Houle (1980) suggests that the need for self-enhancement of the members is important to relieve professional boredom. Skills and knowledge not related directly to the profession can help to reach new clients and offer relaxation by focusing on a less intellectual topic. Ultimately, though, continuing professional education should ensure the maintenance of ethical, intellectual and social standards. It is
important to be proficient in the current knowledge and skills but practitioners must also expect that they will be modified or replaced in his/her work career.

Summary of the Literature

The literature explores the theoretical foundation for this study: continuing education and competence, and the principles of adult education as they relate to program design and evaluation of adult learners. Continuing education that is provided for adults should reflect the principles of adult education.

The concept of competence is critical in the health care field. Products, materials and techniques change rapidly, requiring a practitioner to modify the knowledge and skills learned in their initial training with new knowledge and skills. Continuing education can enable practitioners to keep abreast of new products, instruments and techniques. The Saskatchewan Dental Hygienists' Association uses a mandatory continuing education policy to encourage members to keep their practice current and to maintain competency. However, a definition or description of competency as related to a dental hygienist does not accompany the guidelines.

_Dental Hygiene: Definition, Scope, and Practice Standards_ outlines the standard of care that should be maintained by practicing dental hygienists (CDHA, 2002). They are objective, measurable and can be used to assess one’s own practice or to assess the practice of a peer. They are based on the three dimensions of structure, process and outcomes (Pimlott et al., 1985).

The purpose of the Practice Standards, that of maintaining competency, fits with the principles of adult learning, in that adults should be involved in assessing, planning
and evaluating their own learning because they vary tremendously in their preferences and in their readiness to learn. Adults should be treated as partners in the learning process, and need to be involved in the design and delivery of programs.

Continuing education activities should be designed to make use of adults’ rich and varied experiences. Their experiences could be used as the building blocks of program development for enhanced professional practice. Through the opportunities for social discourses in continuing education, dental hygienists can construct new skills and knowledge. The profession of dental hygiene can evolve only when knowledge is applied to experience, which adds to the knowledge base of this relatively new profession. The next chapter describes the methodology used for conducting the study of the usefulness of continuing education activities.
CHAPTER 3
METHODOLOGY

In this study, I used a qualitative approach to examine the relationship between competence and continuing education of dental hygienists in Saskatchewan. I felt that this approach would elicit data that had not been obtained in previous surveys relating to continuing education in the dental field (Bateson, 1990; Sandilands, 1994; Young, 1988). I hoped that a description of dental hygienists’ thoughts and perceptions regarding competency and continuing education would be a useful complement to the previously obtained quantitative data on the issues. I felt that it was important to hear from the dental hygienists themselves how the Continuing Education Guidelines from SDHA were working for them, and what their suggestions for improvement would be. A survey would have been unable to capture various nuances that can allow for a better understanding of people’s feelings, thoughts and ideas regarding competency and maintaining that competency.

Two qualitative research genres, ethnography and phenomenology, are represented. The culture of dental hygiene influenced all aspects of the research, resulting in a partly ethnographic work. Phenomenology is also present in that the research explored the experiences of a small group of dental hygienists.

In this section, I discuss the qualitative research process used in this study. First, I highlight the features of qualitative research that made it useful to investigate the research problem. I discuss the specific design of the study, including sample selection, research instrument and data gathering techniques. I then examine the limitations and ethical considerations. I conclude by describing the methods used for analyzing the data.
Qualitative Research

Qualitative research, in contrast to quantitative research, does not start with a hypothesis. Rather, the hypothesis is emergent, in that the conceptual framework of the research is modified and refined throughout the life of the project (Rossman & Rallis, 1998).

Qualitative inquiry evolved because of dissatisfaction with the constraints of positivism, where knowledge is assumed to exist, but must be captured (Eisner, 1997). According to Eisner, qualitative research explores cognition and so broadens the traditional efforts of investigation that use statistical procedures. It is an approach to studying people and events that creates knowledge rather than describes it (Rossman & Rallis, 1998). Qualitative inquiry examines people in a real world setting in order to generate new understandings that can be used by that social world (Rossman & Rallis).

One criticism of qualitative research is that it lacks objective standards to guide improvements and gauge effectiveness. Objective standards are difficult to apply, because qualitative researchers use so many different methods in their quest to interpret experiences in terms of the meanings people bring to them, and these meanings are not intended to be expressed in amounts, quantities or frequencies (Denzin & Lincoln, 1998). Lackoff and Morgan (1997) suggest that quantitative characteristics such as reliability, validity and statistics be used to verify qualitative findings while others (Russo & McClure, 1996), state that problems develop when scientific experimental methods are used to explore human culture and interaction because rich stories become masked.

Qualitative research has been described as a dance (Denzin & Lincoln, 1998). Just as dance is interpretive, descriptive and evokes different feelings for everyone who
participates, so too does qualitative research. These different perceptions are desirable, and therefore distinguish qualitative from quantitative methods, which describe phenomena in more objective terms.

**Reflexivity**

In qualitative research, the personal perspective of the researcher shapes the research. This characteristic is termed reflexivity. It is necessary that the researcher be aware of personal paradigms and views on social change, the nature of knowing and the nature of reality (Rossman & Rallis, 1998). Once a research problem has been chosen, the researcher must identify his/her values, beliefs and attitudes about the issues to be investigated. Regardless of their individual philosophies, qualitative researchers must use scrupulous methods to ensure valid results by minimizing potential errors from biases that could affect dependability and conformability of the research.

The research is designed to be an interpretive process that is shaped by the researcher's personal history, gender and biography (Denzin & Lincoln, 1998). The product is a combination of both the researcher and participants' interpretation of the phenomenon under study (Denzin & Lincoln).

The first perspective to be addressed is my belief on the nature of knowing. Where did I feel that the knowledge regarding competency, continuing education and dental hygiene lie? From the literature, I found that there was very little research on the subject. In fact, even in the more mature health professions, such as nursing, the topic of measuring competency is just beginning to be addressed.

As a participant in the drive for self-regulation for dental hygiene, I observed that dental hygienists have the skills and ability to set and reach their own goals to further the
profession. As an educator in the field of dental hygiene, it is my responsibility to keep abreast of the advances in the dental hygiene knowledge base. I have noted that dental hygienists have made significant contributions to that knowledge base. Therefore, I felt that dental hygienists themselves would be the best source to find out what makes a dental hygienist ‘competent,’ and how the professional stays competent throughout a career. The knowledge regarding competency, continuing education and dental hygiene exists not in a book, but within dental hygienists themselves.

A second perspective that influenced my interpretation is my involvement with the Continuing Education Committee of the SDHA. I had been a member of the committee that drew up the original guidelines for mandatory continuing education. The guidelines varied little from those that had been in place before dental hygienists in Saskatchewan became self-regulating, but nevertheless, I had concurred with them. My experiences as an educator, however, have made me aware that there is more to learning than attending a lecture or reading an article. This awareness contributed to my curiosity about what dental hygienists really thought, because, as is characteristic of qualitative research, I entered the study with no firm hypothesis. I wanted to find out what dental hygienists learned in their practices, and how they maintained their proficiency.

Rigor

In qualitative studies, rigor is not obtained by ensuring reliability and validity, but by using other, more subjective methods. The first method of inspecting rigor examines the amount of data collected, which should be sufficient to provide saturation and variation (Denzin & Lincoln, 1998). In this study, I was the facilitator of the focus group interviews, and was able to ensure that the participants completed their discussions.
on each question. Denzin & Lincoln suggest that saturation may also be obtained by seeking negative cases, which was accomplished within the interviews. Having multiple participants that had graduated from different dental hygiene schools and practiced for varying years in different locations ensured variation.

An audit trail, another method of ensuring rigor, consists of thorough documentation of all facets of the research process, including conceptual development, data reduction, and data analysis (Denzin & Lincoln, 1998). The audit trail should be sufficient to enable others to reconstruct the investigation. In this study, I maintained an audit trail by keeping my notes, jottings and drafts in a chronological file.

The third method of ensuring rigor is to verify the study with the participants (Denzin & Lincoln, 1998). In this study, I transcribed the focus group interview and mailed copies to each participant within a week. They were asked to review the transcript and revise it as necessary to ensure that it was adequate and reflected their thoughts accurately. Most participants made small corrections to the original transcript, thereby verifying the data.

Research Methodology

The methodology is chosen according to the research questions to be asked and answered (Rossman & Rallis, 1998). Consideration of alternative methods and designs may alter the initial research questions. These changes to the questions and methodology happen concurrently but ultimately serve to clarify the direction and focus of the project (Rossman & Rallis).
The more carefully a question is chosen, the more likely it is that the project will succeed. Rossman and Rallis (1998) suggest three items that should be considered prior to initiating a research project. First, feasibility of the project: is there sufficient time, resources, knowledge and skills to conduct the study? Secondly, is there sufficient interest in the topic to explore it as fully as possible? Lastly, will a study in this area contribute to a better understanding of the value or the topic under investigation? Can the project be completed ethically? I found that I could answer all questions in the affirmative, so I felt confident to proceed with the research I had in mind.

Strategies of inquiry are the skills, assumptions and practices used by the researcher to translate research design into methods for collecting and analysing data (Denzin & Lincoln, 1998). One strategy is the case study, in which interviewing, observation, and document analysis are used to identify a process. A second, ethnography, chiefly uses observation to gather data. In a phenomenological approach, “the lived experience of a small group of people is investigated” (Rossman & Rallis, 1998, p. 72), and in-depth interviews are used to understand that lived experience. A fourth strategy, action research, involves participants using cooperative inquiry, participatory action research and action inquiry to change an aspect of their world (Denzin & Lincoln). As illustrated above, qualitative research is inherently multimethod (Denzin & Lincoln).

I employed a focus group interview with a relatively homogeneous group of dental hygienists to gather the data. The focus group format was chosen for several reasons. First, it is a qualitative research technique useful for gathering opinions and perceptions. Opinions and perceptions were the types of data I sought to answer the
questions in this study, to complement the quantitative data obtained in previous studies (Bateson, 1990; Sandilands, 1994; Young, 1988). Second, participants’ responses can be clarified and explored for further understanding (Rutherford, 2001). This would have been problematic with survey data. Third, it enabled me to hear more responses from more people than if individual interviews were done. Lastly, I thought that a discussion format with several people would elicit richer data than individual interviews. Because it is easier to communicate thoughts and opinions verbally than in writing, I hoped that the participants might be more forthcoming with their thoughts in a discussion format, where they could let their ideas flow without having to document them.

The participants received an agenda, including the main discussion topic areas, prior to the focus group meeting day. The focus group discussions were both taped and video recorded to ensure no data would be lost.

The date of the focus group was chosen to coincide with the Annual General Meeting of the Saskatchewan Dental Hygienists Association, June 8, 2002. For dental hygienists, continuing education events are plentiful in the spring, and I did not want to choose a date for the focus group interviews that conflicted with a previously planned activity. I also wanted to avoid the participants spending two or three Saturdays in a row on dental hygiene activities. Finally, in consultation with the participants, I settled on the day of SDHA’s Annual General Meeting. It made for a full day, but was the most efficient use of time, and prevented rural participants from having to make two trips to Regina in a short period of time. It was also hoped to make participation more attractive, as it would make efficient use of a Saturday. Appropriately, there was a continuing education activity scheduled for the afternoon following the meeting.
The site of the discussion was one of the dental hygiene classrooms at the new SIAST campus. For 27 years, the dental programs at SIAST had been housed in an old building, in an unsafe area of the city, with no parking. Many dental hygienists had not yet seen the new facility, or were still unfamiliar with the new surroundings and updated décor. As a member of the dental hygiene faculty, I have noticed that the new, modern surroundings have influenced our teaching. We are more aware of other health care practitioners, other methods of learning, and how the physical facilities influence learning. We are constantly reminded of the need to change with the times, and how positive change, while difficult during the process, is ultimately refreshing and renewing. It was with this in mind that I thought it was important that the focus group be situated in the new centre for dental hygiene learning. The participants were most agreeable that this facility should be used for our discussions.

Sample Selection

The decisions involved in choosing a topic and determining the methodology will influence the number of participants required for the study and the selection process, while the number of participants and how they are selected can influence the study in several ways. Many participants allow the researcher to address triangulation and reliability issues and assure continuation of the study should a participant be unable or unwilling to continue. Various types of sampling procedures can be used, depending on the particular context of the study. For example, participants may be asked to participate because of their knowledge or lack of knowledge about the research topic. Depending on the issue, views from both sides may be helpful. Participants may be asked to volunteer,
and occasionally, people are chosen simply because of convenience. In some situations, this method of selection may result in data that has low credibility (Glesne, 1999).

It is felt that interviewing several participants should result in data that provides more insight into the question being examined, while asking for volunteers would engage people who are interested, and would provide depth to the topic. Interviewing the entire population would provide breadth, but, in many instances, is impossible.

The sample for my study was chosen from those dental hygienists that 1) had completed a three-year reporting period on December 31, 2001, and 2) had five or more years of experience. It was thought that their reflections relating to continuing education would be more relevant if they had recently participated in some activities as would probably have occurred as they had just completed a reporting period. The experience was important in order to compare the competency that comes with practice to the competency required to graduate. I also felt that it was important to include dental hygienists from both rural and urban locations, since the distance that people must travel to attend continuing education activities has been cited as a factor that influences participation in those activities (Beatty, 2001; Covington & Craig, 1998; Hegge, et al., 2002).

I requested permission from the SDHA to contact its members for the study. Once permission was granted, I submitted an item in “The Cutting Edge,” the newsletter of the SDHA, informing members about the nature of the study. The Registrar provided me with mailing labels for those dental hygienists that had completed a three-year reporting period on December 31, 2001. From these, I separated the dental hygienists who had graduated fewer than five years ago. The sample was then divided into dental hygienists...
who practice in an urban setting, and those who practice in a rural setting. For the purposes of this study, and following the distribution of dental practices in Saskatchewan, a rural setting was defined as one that was outside Regina or Saskatoon. I then selected every fourth name from the 28 names in the rural group, and every sixth name from the 42 in the urban group, leaving me with seven names from each group.

Invitations to participate (see Appendix B) were mailed to these seven dental hygienists in each group giving them two weeks to notify me of their willingness to participate. I followed up both the acceptances and the declines with a phone call. For those who declined, I sent out an invitation to the next eligible person from the list. For those who declined in the two days prior to the deadline, I was unable to find replacements. The focus group, therefore, consisted of six dental hygienists. Four were from rural areas and two were from Regina and Saskatoon.

The small sample size initially was disappointing. I had hoped for ten participants, to be divided into rural and urban dental hygienists. Once I reviewed the data, however, I realized that this number contributed to a more focused discussion. I was able to keep them all in one group. It would have been difficult to keep the discussions of two groups organized and flowing. As well, upon analysis of the data, there was no difference in the two groups – at least in their opinions on the topics discussed in the interview. Whether their having just completed a three-year-reporting period made the discussion more relevant or not, the participants certainly held opinions on competency and continuing education. Because they seemed to share those opinions freely, the small number of participants in the sample proved to be beneficial.
Research Instrument

I chose to use a focus group interview to investigate the study questions. This proved to be a useful strategy for the purpose of this study. As Rutherford (2001) had described previously, it did indeed prove to be a "Powerful mechanism for learning the perceptions, experiences, values and beliefs of a group of people" (p. 11).

To provide structure for the focus group discussion, I developed questions relating to a description of competency, continued competency and the relationship between these concepts and continuing education (Appendix C). The questions were designed to elicit the participants' opinions, experiences and perceptions about clinical competency and continuing education activities. I pilot tested the questions with two dental hygienists. This pilot test resulted in a change in the order of the questions to enhance the flow of the discussion.

Data Gathering

I felt I did an appropriate amount of planning for the interview. As recommended, I followed a predetermined discussion guide and used open-ended questions (Rutherford, 2001). I found that the participants did motivate each other, resulting in richer data than I had anticipated. As the facilitator of the interview, I was able to change topics when I felt they had exhausted a subject. I was also able to clarify some responses and broaden a subject by asking additional questions.

On the day of the focus group meeting, I talked with each participant prior to the Annual General Meeting, to confirm the room and time of the interview. Once they were all present, I started with an explanation of my research and displayed the goals of the
session on an overhead transparency. I then presented them with the consent form, and reminded them that the session would be videotaped. The final introductory activity was for them to each choose a pseudonym, which was accompanied by much laughter as they suggested new personas to go with the new names.

Six dental hygienists participated in the focus group interview. I had divided the interview into three areas: 1) a description of a competent dental hygienist; 2) the differences between a new graduate and an experienced practitioner; 3) characteristics of useful continuing education activities. For each topic, I had follow up questions prepared. I also used some small group activities, including brainstorming, to make the interview more relaxing and stimulating. The sub questions and the activity for each question were displayed on overhead transparencies for reference. A summary of the answers to each question was posted on flip chart paper. On one occasion, I switched topics sooner than planned because the discussion lagged, but, for the most part, the participants were enthusiastic in their discussions. Once the areas identified had been discussed, we examined the flip charts to make connections between the data. Finally, we reviewed the flip chart data to ensure that the notes represented a true reflection of the discussion that took place. I thanked them for their participation, and reminded them that they would be asked to review the transcript and make any changes that they thought would be necessary for accuracy.

Immediately following the focus group interview, I recorded my thoughts and impressions in a journal, so as to preserve my initial impressions of the interaction. Then I transcribed the tapes, and sent each participant a copy of the transcript, with the instruction to make any changes they felt were necessary for clarification. I also sent...
participants a thank you card and informed them that they would receive a continuing education point for their participation. The Continuing Education Committee of SDHA had previously agreed to this, but I had not mentioned it to the participants to avoid the suggestion of coercion.

Researcher’s Background and Bias

As mentioned above, bias is inherent in qualitative research. In fact, it often drives the research (Denzin & Lincoln, 1998). I have been an instructor in the Dental Hygiene Program at SIAST for ten years, and have served as Acting Program Head. I know most of the 285 dental hygienists in the province, and, indeed, have taught most at one time or another – in the Dental Hygiene Program or at a continuing education course. I am a past president of the SDHA and a former Chair of the Continuing Education Guidelines Committee. Therefore I have a direct interest in the concept of competent dental hygiene practice, as well as in the effectiveness of continuing education as it contributes to competence.

I addressed my bias prior to the focus group interview. I composed the research questions carefully, so they did not appear to be ‘leading’ questions. I also included follow up questions, to be used if it seemed that discussion appeared to be going in a certain direction. During the interview, I limited my involvement to that of a facilitator, and not a participant.
Delimitations and Limitations of the Study

This study was delimited to a sample of six dental hygienists who: 1) had completed a three-year continuing education reporting period on December 31, 2001; and 2) had more than five years of experience as a dental hygienist. The results may not be transferable to dental hygienists with less experience or who are in the middle of a reporting period, or, indeed, to other hygienists in general.

The research findings rely on self-assessment, and the accuracy of self-assessment is not questioned, which may be a limiting factor. The participants did not have objective data on how their practices had changed, or on how they maintain competent practice, since learning at continuing education activities is not evaluated. The participants provided their thoughts and perceptions only.

Ethical Considerations

Qualitative research deals with individuals in their actual work and home settings. Therefore, it is essential that risks to the participants are minimized and rules for protection are observed (Denzin & Lincoln, 1998).

Rossman and Rallis (1998) discuss several considerations that must be addressed prior to conducting an ethical research study. The issues of privacy and confidentiality are crucial to assuring anonymity to the participants, for without this anonymity, participants may not be as forthcoming with their thoughts. In this study, each participant chose a pseudonym so that his or her identity would remain confidential.

The second issue involves deception and consent. Informed consent must be obtained from each participant, so that they understand the purpose of the research, what
their participation involves, that they are participating willingly, and that they can withdraw at any time (Rossman & Rallis, 1998). In this study, participants consented, in writing, to take part.

Prior to conducting the focus group, I sought and received approval from the University of Regina Research Ethics Board. This ensured that mechanisms were in place to make certain that the research would not place the participants at risk and that their anonymity would be assured. A copy of the ethics approval is at Appendix D.

Data Analysis

I used the transcribed focus group interview records to analyse the data. As soon as I had transcribed the interviews, I sent a copy to each participant and asked them to make any changes or corrections to ensure that their thoughts were represented accurately. At this time, I also asked them for their opinion as to what was the most interesting issue arising from the focus group discussions. I used this information to compile a master transcript.

I then reviewed this complete transcript and began the analysis by organizing the data into three broad categories that corresponded to the three issues that were discussed: competence; learning since graduation; and continuing education. This task served to sort the information into manageable units, and enabled me to become more familiar with it.

The next task was to further sort the data according to themes. I read the transcripts and marked what was interesting or what was unexpected, to see what themes emerged. I then reread the transcripts, and identified categories and recorded these in the
margins. I assigned codes for the categories, and then sorted the information into files based on the codes, which made it easily retrievable.

Following the coding process, I used inductive logic principles to search for recurring patterns and language. I then used deductive principles to reread the data and reduce it into recurring themes, and used these themes to further sort the information. I also reviewed the transcript to check for opposing views or alternative understandings that may have existed.

Two major themes emerged from the data. First, the skill of self-assessment is critical to competent dental hygiene practice. The dental hygienists in the study used self-assessment as a basis for all the focus group discussion topics. The second theme to emerge was that communication and client management skills are essential for quality dental hygiene care. The participants in the study rarely referred to technical and clinical proficiency, but rather determined that personal skills were important to develop and maintain.

Summary

Qualitative research methods can be used to study theories (concepts) that are not amenable to quantitative tools by gathering and analysing opinions, feelings and perceptions to provide an understanding of a concept. Phenomenology uses in-depth interviews to understand people’s experiences. In the absence of a hypothesis to guide the study, knowledge emerges from the data as it is collected.

Ultimately, I found that using a focus group interview served as a suitable method to investigate the study questions. Previous quantitative studies (Bateson, 1990;
Sandilands, 1994; Young, 1988) have investigated aspects of continuing education in the dental fields. However, in this study, I sought further information on the why’s and how’s of continuing education. Using a qualitative methodology allowed me to answer those questions.
CHAPTER 4

PRESENTATION OF FINDINGS

In this chapter, I present the findings of the study. I facilitated a focus group in which six experienced dental hygienists provided their perceptions on competent dental hygiene practice, maintaining that competence over time, and the contribution of continuing education to continued competence. The group of six consisted of dental hygienists from both rural and urban areas of Saskatchewan. I wanted to determine if there was a difference in opinions among those hygienists practicing in Regina and Saskatoon, and those who worked at a distance from those two centers, where most of the continuing education activities are offered.

Following is a brief description of the practice experiences of the dental hygienists who participated in the study.

Terry – graduated from the dental hygiene program at SIAST in 1986, practices in a community oral health setting in a small Saskatchewan city, and is also a dental therapist. Dental therapy is a diploma program that prepares individuals to provide basic restorative dental care services and oral health promotion.

Georgina – graduated from the dental hygiene program at SIAST in 1991 and has practice experience in both community oral health care settings and general practice dental offices in a small Saskatchewan city. Georgina is also a dental therapist.

Tina – graduated from the dental hygiene program at SIAST in 1980, practices in a general dental office setting in a small city, and is also a dental therapist.

Tiny – graduated from the dental hygiene program at SIAST in 1980, practices in a general dental office setting in a small city, and is also a dental therapist.
Carla - graduated from the dental hygiene program at the University of Alberta in 1975, and practices in a general dental office setting in Regina.

Lesley – also graduated from the dental hygiene program at the University of Alberta in 1975, has experience in both general and specialty dental office practices in both rural and urban locations.

I initiated the focus group discussion with a warm-up activity. I displayed two definitions of competency on an overhead. These definitions were taken from the nursing profession (Waddell, 2001), and highlighted clinical skills, organization ability, and interpersonal attributes as qualities desirable in a competent practitioner. As a group, the participants discussed the similarities and differences between the two. This activity was intended to help focus thoughts on the pertinent issues to come. Later, the group engaged in other activities, such as brainstorming and ranking. Data from the focus group discussion could be categorized into three major themes: competence, maintaining competence and continuing education.

Competence

The first activity in which the focus group engaged was designed to generate descriptions of a competent dental hygienist. The participants were supplied with paper and a pen, and were asked to say aloud a desired quality, write it down on the paper, and then pass the paper to the next person, who then did the same. This activity lasted for one minute. It served as a brainstorming activity, and also as an icebreaker. I felt it was necessary to set the climate so that the participants would feel a sense of comfort in sharing their very valuable information. I also wanted them to understand that I was
merely the recorder. The activity did result in documenting several qualities that the participants considered essential in a competent dental hygienist.

These qualities were very different from those identified in the two definitions of competence as described above. However, once the participants began brainstorming, they focused on values and attitudes. The characteristics of a competent dental hygienist that they suggested were:

- Confident
- Caring
- Mature
- Efficient
- Professional
- Sincere
- Problem-solver

In fact, both caring and confident were mentioned twice. It was not until approximately 45 seconds had elapsed that words referring to technical skills were mentioned, when Georgina said, "How about the actual work, here?" they laughed at the fact that clinical skills were the last thing to be mentioned!

Next, they separated the qualities into those that a dental hygienist should have on the first day of work, and those that are gained more or less through experience. The qualities were then written up on the flip chart as shown in Table 1.
Table 1

Initial and Acquired Qualities of a Competent Dental Hygienist

<table>
<thead>
<tr>
<th>Initial Qualities</th>
<th>Acquired Qualities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional appearance</td>
<td>Confidence</td>
</tr>
<tr>
<td>Sincere</td>
<td>Organization</td>
</tr>
<tr>
<td>Caring</td>
<td>Self assured</td>
</tr>
<tr>
<td>Professional clinical skills</td>
<td>Professional clinical skills</td>
</tr>
<tr>
<td>Professional conduct</td>
<td>Professional conduct</td>
</tr>
</tbody>
</table>

The final activity of the discussion on competence asked participants to describe how one could measure if the qualities were indeed present in a practicing dental hygienist. Immediately, Tiny said, “Aren’t we relying on our teaching staff to do that? To set the standards?” Lesley said that, as professionals, self-assessment is the ideal way to measure competence and that, “We should know, as professionals, what our standards are as dental hygienists.” The discussion then returned to dental hygiene students. Tina noted that, “Your selection process at the start is going to pick out some of those things that a person already has,” referring to those qualities that a dental hygienist requires to be successful.

The participants then discussed the question of measurement for the determined attribute of confidence. Tina suggested that, “They’ve taken a job – could that measure it?” Lesley proposed that, “Your results of your work will help you develop confidence that what you’re doing is appropriate and successful.” Terry said, “The measurement can also be the length of time you stay with the profession.” It was concluded that if one continues to practice, seeing positive results of his/her work would help develop
confidence that one’s efforts are appropriate and successful. The length of time that one
practices was also thought to have an impact on increased confidence.

Identifying strategies for the measurement of organizational skills proved to be
more challenging. The participants noted that in a team situation, as the dental office is,
others could have a significant impact on whether or not a dental hygienist is organized.
Terry expressed this concept, saying, “There are a lot of disorganized people out there
that are working in dentistry, but they have people who organize them.” For example,
clients are often scheduled to see the dentist directly before or after the hygiene
appointment, so all clinicians must operate according to the clock in order to make the
most efficient use of the client’s time and of their own time. An organized operator can
assist a disorganized coworker to maintain a schedule by having the client’s chart and
instruments prepared and by providing reminders that the client is ready.

Regarding the measurement of clinical skills, the participants determined that
dental hygienists could rely on the satisfaction of employers and coworkers and patients
to assess their own skill levels. Determining measurement tools for the other qualities
listed also seemed to be challenging, so we moved on to the issue of personal
competence.

Personal Competence

Participants were encouraged to describe how they personally keep their practice
current, and how they personally determine that they are competent. In keeping with the
general theme that had been established, the first comment from Tina was, “If you have a
soul, you care.” Tina went on to explain that one’s conscience tells you if you have lost a
tskill or neglected to learn something that might have helped you to help another person.

The discussion then moved to how one determines she/he has a need to learn or
relearn. Terry stated that, “You hear about it or you read something in a journal and talk
to other health professionals that this is the way the practice is going.” They felt that
reading current journal articles and participating in discussions with colleagues were
important as activities that may trigger a desire to learn, and supporting this are the
elements of enthusiasm and experience. One needs to be enthusiastic about the profession
to keep abreast with reading journal articles or getting together with colleagues to discuss
common problems and issues. Terry noted that careful thought and experience are
required to distinguish between new practices that are evidence-based and those that may
be experimental, or “you’re not going to jump on the bandwagon because it’s the latest
thing – you make sure it actually works and is accepted practice.”

At this point, Georgina noted that, “I believe our governing body has something
to do with it, too. We are required to have a certain number of continuing education
points.” The participants agreed that the SDHA continuing education requirements were
an incentive for dental hygienists to attend educational activities. However, Terry stated
that, “You also have to apply it,” indicating that it is the application of knowledge that
makes it effective and that the regulatory requirements are only a beginning to assisting
dental hygienists to keep current. Learning and application are required following simple
attendance at an activity in order for it to be considered useful in updating one's practice.
The discussion on competence concluded with the participants discovering that they all asked themselves the same question, “Would I want this done in my mouth?” If it could be answered affirmatively, then that becomes each individual’s standard of care.

Continued Competence

Addressing continued competence, the participants were asked to describe how their dental hygiene practice had changed since they graduated. First, I wondered if they could actually identify changes. Also, I wanted to know whether those changes occurred in the technical area of dental hygiene practice, or in the affective areas.

It was by now not surprising that the first change mentioned by the participants was not the ability to remove calculus more quickly or to sharpen instruments more effectively. Indeed, the first change referred to was an ability to remember personal details about their patients, and how those seemingly insignificant details can have an effect on the results of dental hygiene care. Lesley explained that, “All clients are not created equal; you don’t put people into slots and you tailor the treatment to the reality of their situation. For example, there are financial barriers to ideal treatment.” The participants agreed that knowing more about the client’s home care situation and oral health values allows the clinician to formulate a care plan that has a greater chance of success. In addition, clients usually have more confidence in an operator who appears to be familiar with their specific cases. Tina expressed this by saying, “When you see a patient and you can remember what happened the last time, people really like that.”

The next change mentioned was the perceived notion of perfectionism in dental hygiene practice. “There are limits to what you can influence,” and “You don’t have to
"be perfect" are two comments contributing to this viewpoint. Georgina stated that, at graduation, "... You think you've got the world by the tail," but you learn that, "You can't satisfy everybody." These thoughts refer to the contradictions inherent in dental hygiene care. On one hand, debridement, or 'cleaning' is an objective procedure that is accomplished using well-established armamentaria and instrumentation techniques. On the other hand, the procedure has little chance of success without equivalent but different manual procedures that must be followed by the client. In school, it is easy for the students to focus on the technical aspect of dental hygiene care, because it is the one element that they can control. In the dental office, however, it quickly becomes apparent that the attitudes and actions of coworkers and clients can affect the outcome of dental hygiene care as much as exceptional technical skills of the dental hygienist.

Technological changes in clinical dental hygiene practice prompted the next changes in practice that were mentioned. Advances in powered instrumentation and contributions to the dental hygiene knowledge base have required dental hygienists to learn to use techniques that are different from those they learned in school. For example, Carla noted that when she was in school, each student had only one opportunity to use an ultrasonic scaler, or "one kick at the cavitron, so I had to learn by doing" once she graduated. None of the participants implied that this 'learning by doing' was difficult, unavoidable or exceptional.

The last change that the participants discussed was in their personal perceptions of dental hygiene practice. Carla reflected that, "When I graduated, I don't think I had a picture of our profession being part of a larger health picture." The other participants agreed that when they graduated, they limited their focus to the oral cavity. However,
changes in dental hygiene practice and in the expectations of the oral health care consumer have changed their views of themselves. They now see dental hygienists as part of a team that contributes to the overall general health of the population. The participants recorded these changes on flip chart paper as illustrated in Table 2.

Table 2

Changes in Dental Hygiene Practice since Graduation

<table>
<thead>
<tr>
<th>Changes</th>
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<tbody>
<tr>
<td>- Personal knowledge of clients</td>
</tr>
<tr>
<td>- People skills</td>
</tr>
<tr>
<td>- Can't satisfy everyone</td>
</tr>
<tr>
<td>- Don't have to be perfect</td>
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<tr>
<td>- Interpersonal skills</td>
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<tr>
<td>- Clinical</td>
</tr>
<tr>
<td>- Treatment planning</td>
</tr>
<tr>
<td>- Office skills - staff relations, employee/employer, computer</td>
</tr>
<tr>
<td>- Part of a team</td>
</tr>
</tbody>
</table>

Continuing Education

From the discussion of how their practices had changed, participants went on to discuss the role of continuing education. I wondered if the mandatory continuing education policy had played a role in the changes that they had identified.

I asked each of them to describe a ‘good’ continuing education activity, and explain what made it ‘good.’ The first activity described had taken place in March, with the topic of diagnosing periodontal disease, presented in a problem-solving format. Carla and Lesley had both attended that activity, and identified several items that made it an
excellent learning experience. Carla explained that, "It was extremely organized and hands on . . . You had to diagnose and you learned an awful lot." They identified working within a group, the fact that the workshop was extremely organized, hands on, participative and applicable as reasons for its usefulness.

Other activities were considered useful because of new knowledge gained, the presentation skills of the facilitator, or the suitability of the topic and its application. The participants differed in the amount of weight given to each descriptor of satisfaction. Some felt that the activity was satisfying if the speaker was good, even though the topic was not one that they could relate directly to. The comment, "A good speaker is important to keep people on track – it doesn’t always matter what the topic is," is an indication of this opinion. Others felt that the application of the information was more important than the quality of the presentation. Tina mentioned, "If it’s related to your profession, you will sit through a lot of things." Ultimately, they agreed that it was most beneficial if the topic was something one can relate to on a personal or professional level, even if it was not directly related to clinical dental hygiene practice. They felt that each hygienist differs as to what knowledge and skills are applicable for him/her at different points in his/her practice. Lesley then related this back to the importance of self-assessment, in that conscientious self-assessment will help to identify what knowledge and skills each dental hygienist will find useful at various stages in a career.

With regard to the idea of having to pass an evaluation on a continuing education activity prior to receiving credit, they said that it would make no difference to the usefulness of that activity. Carla expressed this thought as, "I don’t think that testing is an essential part of continuing education. You’ll go if you need something." If an activity
is on a topic that a dental hygienist wants to learn about, then she/he will attend, will learn and will apply the new knowledge, if it has been presented effectively.

The participants listed the desirable qualities in a good continuing education activity on flip chart paper as illustrated in Table 3.

Table 3

Qualities of a Good Continuing Education Activity

<table>
<thead>
<tr>
<th>Continuing Education Activity</th>
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</thead>
<tbody>
<tr>
<td>1. Like the Perio workshop – hands on, applicable, organized, participation</td>
</tr>
<tr>
<td>2. Good speaker – short presentation, relevant</td>
</tr>
<tr>
<td>3. Personal – carry forward, apply at home or at work</td>
</tr>
<tr>
<td>4. Dynamic speaking skills, applicable, know audience</td>
</tr>
<tr>
<td>5. Testing not relevant to learning</td>
</tr>
</tbody>
</table>

The last part of the interview focused on determining if a relationship existed between acquired qualities, personal changes in dental hygiene practice and continuing education activities. Participants reviewed: 1) their description of the qualities that dental hygienists acquire through experience and; 2) the changes in their personal practice and; 3) the qualities of good continuing education activities to see if these were connected.

They hung all the flip chart pages on the wall, and examined them together.

They began by investigating “Personal knowledge of clients.” Was this acquired with experience? The participants observed that some are more gifted than
others in relating interpersonally. They also said that making notes in a client’s chart about interests or number of children would be helpful for everyone in the office. This strategy could easily be implemented as office policy, and is therefore something that could be taught. However, they were adamant that people skills were critical to being a good dental hygienist, Carla stressed that if one didn’t have those skills, "people wouldn’t come back to you because half the time you’re doing something that they’re not real thrilled about having done.” Again, they mentioned that the faculty of the dental hygiene program, as experienced dental hygienists, are in the best position to identify students who are weak in this area and assist them to become stronger, because it is important that dental hygienists develop those skills early. There was a feeling that people skills could be taught within the dental hygiene program’s curriculum.

Evaluation of those interpersonal skills was the next issue raised. They wondered how dental hygiene educators evaluate the soft skills, and if students should be encouraged to find another profession if unable to adopt the values and attitudes of a competent dental hygienist. Two of the participants mentioned that problems had arisen in their offices, caused by clinicians that had acceptable clinical skills, but lacked the ability to interact with clients and co-workers.

I asked if it would be possible for a dental hygienist not to have developed those skills. “Yes,” they said, it was definitely possible. One suggested that family background plays a role in whether or not one could develop people skills. The others agreed, illustrating this argument by describing a dental hygienist who did not respect older adults. Apparently, the hygienist neglected to move the dental stool out of the way when seating the client, which demonstrated a lack of respect. It was suggested that maybe
they’ve never been around elderly people before. Terry added, “Maybe the older people that they’ve been around have been pretty spry, so I think there are some things that can be taught.”

Terry then related these skills to other interpersonal skills, such as cross-cultural awareness, and noted that even with training, some people “will take it in and some will never get it.” However, the participants suggested that people skills are something that should be an integral part of the education process and not left to each dental hygienist to develop on his/her own. Education in that area can help people to identify situations requiring certain skills, and to choose an appropriate response. It can also facilitate the collaborative approach that is required to obtain a client’s informed consent to a dental hygiene care plan.

The discussion then returned to the responsibility of the dental hygiene faculty in identifying whether or not a student was ready for entry to the profession. They agreed that no matter how well developed students’ clinical skills are, “You should not graduate if you cannot treat people with respect.” They related those values to the previous discussion on length of time in practice, concluding that if good people skills are lacking, they probably will find the profession unsuitable. Also, their employer would be unhappy with their work.

This led to a discussion on the types of continuing education courses that have been offered recently. While there have been many with a technical focus, few have focused on affective skills. Tiny suggested that this lack could be partly due to the requirement of having to obtain half the continuing education points from areas relating to clinical dental hygiene. As well, Tina mentioned that, “They sent out that continuing
education survey, so the people that answered must have wanted more clinical stuff.”

The participants noted that the area of behaviour modification would be useful for dental hygiene, but articulate and informed facilitators may be expensive for a small organization, like the SDHA, to contract.

This discussion concluded the focus group interview. I thanked them for their participation, and reminded them that I would still need them to read the completed transcript to correct and revise as necessary for accuracy. We were amused that, should the dental hygiene students become aware of our discussions, they would probably be aghast that clinical skills, which they tend to focus on exclusively, had been mentioned briefly and then only as an afterthought in terms of competency of dental hygienists.

Rural/Urban Differences

During the discussion about competency, there seemed to be no differences in the opinions of those dental hygienists who practiced in the urban areas of Regina and Saskatoon, and those who practiced in smaller rural centers. All participated equally and shared the same kinds of experiences, opinions and suggestions. Both rural and urban participants emphasized the importance of professionalism, and the ability to self-assess.

Regarding the activities that individual dental hygienists pursue to maintain competence, again there were no differences between the rural and urban groups in the activities suggested. The time or expense involved in traveling to Regina or Saskatoon was not mentioned by any of the rural participants, nor was isolation from other dental hygienists a factor in determining individual competency. In fact, when discussing
quality continuing education activities, it was an urban participant who first mentioned the importance of having courses on topics that are relevant to one’s individual practice.

Conclusion

In conclusion, the focus group participants discussed several issues relating to competence, maintaining competence and continuing education. They stipulated that a confident and caring attitude was essential to competent dental hygiene practice, in fact, declaring that attitudes and values were more important than exceptional clinical skills. They maintained that their individual practices had changed the most in the areas of interpersonal skills, as well as in their own attitude towards their profession. They explained that they once believed that their instrumentation skills would dazzle their clients and employers, and would result in good oral health for their clients. Now they believe that functioning effectively as part of a team contributes to the client’s and ultimately to society’s general health as well.

Finally, the participants discussed the contribution of continuing education to their dental hygiene practice. They determined that an accurate self-assessment is the first step to maintaining competency and that, as professionals, dental hygienists should select their learning activities based on their individual needs. The participants felt that for continuing education activities to maintain competent practice, they should include exploring improved interpersonal skills and attitudes to the profession. There was no difference in the opinions of dental hygienists who practiced in either rural or urban areas. In the next chapter, these findings will be analyzed and discussed in relation to the relevant literature.
CHAPTER 5

DISCUSSION OF FINDINGS, IMPLICATIONS AND RECOMMENDATIONS

The purpose of this study was to explore the role of continuing education in maintaining clinical competency in dental hygienists. To achieve this purpose, I facilitated a focus group interview of six dental hygienists. In the interview, I sought to determine the perceptions of experienced dental hygienists on three issues: 1) the characteristics of a competent dental hygienist, separated into those which should be present initially, and those that can only be acquired through experience; 2) how individual dental hygienists maintain competency, and how their practices had changed since graduation; and 3) the features of continuing education activities that facilitate learning and application of that learning to practice. I also invited participants from both rural and urban areas to see if the traveling required to participate in continuing education activities affected their participation in those activities.

In this chapter I analyze the findings and compare them to current literature relating to competence and continuing education and then discuss them in terms of the questions I had raised at the beginning of the study, as described in Chapter 1. I then draw conclusions based on the findings, and suggest implications for dental hygiene practice. I conclude by making recommendations for further study.

Discussion of Findings

In this section, I identify findings of the study and discuss them in terms of relevant literature. I begin with an examination of the issue of competence in the health, and particularly, dental fields, and relate it to quality assurance programs. Next, I discuss
the activities that experienced dental hygienists engage in to maintain proficient practice. Finally, I compare the features of useful continuing education activities with the principles of adult education.

Professional Competence

The participants repeatedly emphasized that professional values and attitudes are extremely important in a competent dental hygienist. Initially, when they were asked to describe the qualities of a competent dental hygienist, the qualities of caring, confidence, maturity, efficiency and sincerity were all mentioned before adequate psychomotor skills.

In the dental field, several definitions of competence, highlighting knowledge and skills, have been proposed (Carlson & Kalkwarf, 1997; Low & Kalkwarf, 1996; Pimlott, Chambers, Feller, & Scherer, 1985). Low and Kalkwarf's (1996) definition of competency referred to dentists, and added the element of judgment to an ability to use knowledge and skills to perform effectively. However, while citing efficiency, the dental hygienists in this study seemed to emphasize caring and confidence rather than knowledge and skills as important for a dental hygienist. The definition of a competent dental hygienist suggested by Pimlott et al. (1985) refers to an ability to perform technical tasks, such as scaling and polishing, skillfully. This difference, perhaps, illustrates the significant changes that have taken place in the field of dental hygiene as it has grown into a profession. The focus of dental hygiene care has shifted from the application of technical skills to the selection of skills, tools and techniques that are appropriate for each particular client. Here, the element of judgment does apply. It is interesting that the dental hygienists in this study received their training at a time when the narrow definition of competence was in effect. However, it appears that, with time
and experience, the focus of their practice has shifted from simply using the psychomotor
skills they perfected at school to applying these skills appropriately in various situations.
The participants appear to think that the attitude of a dental hygienist contributes as
much, if not more, to competent practice than knowledge of the field and psychomotor
skills. Ultimately, the definition of competent practice that coincides most closely with
the participants’ own thoughts comes from the field of nursing. In this definition,
Exstrom (2001) says that interpersonal and decision-making skills are ranked equally
with knowledge and psychomotor skills.

Some definitions of competency have a situational element, which considers the
practice setting (Waddell, 2001). The focus group participants discussed this element,
deciding that productivity and the transfer of knowledge and skills from school to
practice were necessary before a dental hygienist could be judged as competent. As the
participants have experience practicing in general, specialty, rural, urban, private and
community settings, it can be assumed that they feel that competence is specific to a
practice setting. This assumption is in agreement with del Bueno (1997) who noted that it
is difficult to measure competence without considering the practice setting.

Regarding psychomotor skills, the participants explained that, once dental
hygiene students had learned the basics in school, the skills would naturally develop over
time. However, there appears to be little supporting data. Murphy (2002) suggested that it
takes ten years for a novice practitioner to develop into an expert. The development does
not come effortlessly, but requires critical reflection and day-to-day practice. Perhaps it is
the judicious application of skills that requires critical reflection in order to improve, but
the psychomotor skills themselves remain as routine practices.
Continuing Competence

Continuing competence, the maintenance of skills and knowledge over time, has become important in the science-based professions because the knowledge base continues to change rapidly (Nash, 1992). In addition, a recent survey of practicing dental hygienists in Saskatchewan found that greater than 50 percent had more than seven years of experience (Survey Results, 2001). Therefore, in the years of practice since graduation, the majority of dental hygienists have been challenged by changes in methods, materials and dental products. The dental hygienists in the focus group were no different.

Carla gave an example using the growth of ultrasonic scalers to assist in debridement. When she was in school, she used one only once. Now, she uses the device on most clients. This ability involved reading about it, talking to others with experience, attending a course, experimenting with it and evaluating its effect on client care. Lesley cited care planning as another area that has changed significantly since she graduated. The dental hygienists thought that modifying one’s practice was a normal occurrence, and again cited ‘professionalism’ as the impetus behind making changes.

A significant portion of the literature on continuing competence cited measurement of competence as an issue that has not yet been resolved (Low & Kalkwarf, 1996; Waddell, 2001). The difficulties involved in measuring competence were apparent in the focus group interviews also. Following Waddell’s (2001) guidelines for measuring continued competence in the nursing profession, the participants identified the constructs to be measured, but not the paradigm, measurement tool and how the data would be interpreted. The participants were adamant that interpersonal relations and professional conduct should be present in a practitioner, but were challenged to identify valid and
reliable tools to measure those qualities. The focus group interview questions did not include identifying measurement instruments and interpreting the meaning of the measurement data.

There was agreement by the participants that the dental hygiene faculties were responsible for ensuring that graduating dental hygienists were competent to practice. They also agreed that experienced dental hygienists should have developed sufficient self-assessment abilities so as to be aware of ineffective practice, and felt that clients also were capable of assessing a clinician’s skills. This view differs from that of Asadoorian (2001) who states that consumers have a limited ability to assess technical dental hygiene skills. The participants felt that satisfactory professional values and attitudes could be measured by the years spent in practice. The participants explained that dental hygienists who were not competent would not be content in their professions, and would leave early to find a new profession.

In agreement with the literature, the participants relied on self-assessment to measure competency (Fried, Devore & Dailey, 2001; Saporito, Feldman, Stewart, Echoldt & Buchanan, 1994). Although Forrest (1995) found that many dental hygiene schools did not teach self-assessment skills, the dental hygienists in this study did not mention this lack as a problem. Perhaps this can be explained by Murphy (2002), who stated that that expert practitioners internalize standards so well that they automatically self assess. Similar to the nursing profession (Waddell, 2001), the participants stressed professional accountability for maintaining competence. None of the participants broached peer review as a measurement tool.
Quality Assurance

In this study, the participants discussed competency as an individual responsibility. They did not continue the discussion to consider the effect of that individual competence on the profession of dental hygiene as a whole. However, Houle (1980) cites advancement of the profession as a goal that can be attained by continuing education. In the health professions, continuing competency is a component of a quality assurance program (Asadoorian, 2001). More specifically, with dental hygiene in Canada, Asadoorian states that quality assurance activities should promote the profession as well as ensure competence.

Daley and Mott (2000) discussed this discrepancy between individual and collective views. They suggested that a new model of learning, using a constructivist-transformative approach, would encourage adoption of new knowledge and skills into professional practice. Incorporating new knowledge and skills into the practice of dental hygiene would then transform the knowledge and skill base of the profession as a whole. This transformation a vital component of a quality assurance program, which should reflect the surroundings in which dental professionals practice, and be a dynamic and ongoing process (Crall, 1991).

A second aspect of a quality assurance program is protection of the public. Several participants addressed this issue in the focus group discussion. It was mentioned that it is important to evaluate one’s treatment to ensure it was appropriate and successful. It was also explained that being able to help people effectively is the main reason to maintain one’s competent practice. Participants noted the effect of oral health on overall health and how dental hygienists can ensure that this effect is a positive one for
their clients. So, although the issue of protecting the public was not specified, the
participants, in a less direct way, did refer to it as an element of competent practice.

In the literature, there are several examples of quality assurance programs
(Carlson & Kalkwarf, 1997; Exstrom, 2001; Lau, 1997; Saporito et al., 1994). Continuing
c ompetency is the major focus of each program, although conflicts arise when it is
suggested that continuing competence be linked to licensure. Cervero (2000) states that
continuing education is being used more frequently to regulate a professional’s practice.
For example, forty-seven states in the United States now require pharmacists to have
continuing education as a basis for relicensure (Cervero), which compares to dental
hygiene in Canada, where the five self-regulated provinces have mandatory continuing
education requirements for relicensing. Exstrom (2001) states that one duty of a
regulatory body in nursing is to assure competence. However, Lau (1997) describes a
situation where the members of the dental profession in California have in place a
mechanism to measure both clinical skills and knowledge but have refused to link this
competency assessment with relicensure. Woolf (1993) proposed that competence in
health professions be kept separate from disciplinary measures. Yet, the dental hygienists
in this study seemed to agree with the position of Exstrom. The participants suggest that
the dental hygiene regulatory body has a role in measuring competency. They also note
that the mandatory continuing education policy is partly responsible for motivating dental
hygienists in Saskatchewan to attend educational activities, and agree that this is a start to
keeping current in their practices.
Assessing Competent Practice

As previously found in the literature, the focus group participants identified self-assessment as the most common tool used to measure maintenance of personal competence. In fact, the group continuously mentioned the importance of self-assessment to competent dental hygiene practice. The use of self-assessment skills was evident when they discussed measuring competence, growth in personal practice and continuing learning experiences.

Exstrom (2001) suggested that individual nurses were accountable for assessing their own practices and learning needs, and for then implementing activities for improvement and development. The dental hygienists in this study seemed to agree with this perspective. In the discussion on measuring competence, Lesley declared that, as professionals, “Self assessment is the ideal way.” This opinion supports Waddell’s (2001) assertion that self-assessment contributes to individual professional accountability. Later, Lesley expanded on this theme, and explained that the results of one’s work will help one to develop confidence that what is being done is appropriate and successful. Another participant described reading recent journal articles and discussing dental hygiene practice with colleagues as some of the tools used for self-assessment. These are similar to methods used by dental hygienists in British Columbia to determine which activities to engage in to enable them to maintain competency (Covington & Craig, 1998).

Whereas Forrest (1995) found that self-assessment skills are not being taught adequately in many dental hygiene schools, the dental hygienists in the study seemed to take it for granted that every practitioner engaged in accurate self-assessment. This
thinking concurs with Woolf (1993) who suggested that doctors should build a habit of reflecting and criticizing their practice and that this reflection should be encouraged by continuing education activities. Engaging in self-assessment could avoid the uneasy situation described by Crall (1991) when members of a profession felt that quality assurance activities were being imposed by the ‘outside,’ and not by the members of the profession. It is assumed that self-assessment would reveal, to the individual practitioner, areas of practice that could be enhanced by participating in a learning activity. As a result, the members of the profession themselves would identify the usefulness of a quality assurance program.

The dental hygienists in this study did not mention using the Clinical Practice Standards of Dental Hygienists in Canada (1995) to assist in their self-assessment activities. This lack had been identified previously by Asadoorian (2001), who reported that the standards are underutilized by dental hygienists in Canada. Perhaps if continuing competence were assessed more formally in Saskatchewan, the participants would find the standards helpful in measuring such competence and diagnosing learning needs. Furthermore, Knox (2000) discovered that over 50 percent of continuing education in the professions is self-directed, therefore professionals need to be able to self-assess in order to choose the direction of their continuing education activities. The Clinical Practice Standards could provide a framework for engaging in activities that would contribute to maintaining proficient practice. As previously noted by Forgay et al. (1993), using the standards as a self-assessment tool also contributes to each individual’s motivation to seek out useful activities.
The Saskatchewan Dental Hygienists’ Association (1999) uses a mandatory continuing education policy to “assist hygienists to remain current in their roles as clinicians, educators, and client advocates” (p. 1). The dental hygienists in this study discussed the regulatory requirements and their influence on participation in the activities, the types of activities offered and their usefulness in maintaining proficient practice.

First, the mandatory continuing education policy was cited as a reason that some dental hygienists attend continuing education activities. The participants in the study added that the knowledge and skills learned through the activities have to be applied for the activity to be deemed successful in keeping practice current. However, Georgina stated, “But that is where it begins – with the requirement.” The participants did not seem to feel that the requirement produced resistance, as had been noted by Woolf (1993) in his discussion of global continuing health professional education. The mandatory requirement was also mentioned as a reason that the continuing education activities offered lately have focused on psychomotor skills. It was assumed that because members must collect half of the required points from areas relating to clinical dental hygiene, the SDHA Continuing Education Committee focused on sponsoring workshops on these kinds of topics. Activities that focused on other topics, such as communication and personal development may be better sponsored by larger organizations with larger budgets that are able to bring in experienced facilitators from outside of the province.

The participants did not mention online continuing education activities. In fact, when asked to describe a useful activity, the first one mentioned was one that featured a
group discussion, rather than a lecture. Other useful activities involved qualified speakers and participatory activities. Perhaps because dental hygienists practice individually and on their own, they seek group activities, as opposed to individual activities to affirm their current clinical practices. This conclusion concurs with Dreher (1987) who found that dental hygienists use continuing education activities to reflect on their practice with their peers.

Regarding the usefulness of continuing education activities, the participants seemed to feel that application of new knowledge and skills was the determining factor in preferring one activity to another. Unlike the studies cited in the review of the literature, neither the travel nor costs associated with educational activities were mentioned as considerations when choosing an activity to attend. This was somewhat surprising as the majority of the dental hygienists in the focus group live outside of Regina and Saskatoon, where most of the continuing education activities are held. The opinions of the participants in this study also differed from those of dentists in Alberta (Sandilands, 1994) in that the dental hygienists seemed to feel that there is a relationship between continuing education and changing practice, while, in Alberta, the findings indicated that dentists found this link unclear.

Adult and Continuing Education

What was clear from the focus group discussions was that the participants definitely are self-directed learners, similar to the adult learners described by Knowles (1990). They are also self-motivating, which was clearly illustrated by Lesley, who said, when describing a 'good' course, “It goes back to what your (weak) areas are, and then it's more pertinent . . . You should have identified what your weaknesses are.” This self-
directing ability also appeared when the participants were explaining how they kept their personal practices current. They identified that listening to their conscience, discussing their work with peers and reading current journal articles enable them to reflect on their practice and detect areas that could use improvement. They all agreed that by asking "Would I want this in my mouth?" they could best assess their competence. In a less visual or objective profession, this method of assessing one's own work may not be as easy, or even be possible. However, the participants did agree with Merriam and Caffarella (1999), who noted that adults are capable of assessing, planning, implementing and evaluating their own learning.

Throughout the focus group interview, it was evident that previous experiences influenced each participant's thoughts and views. This influence typifies another characteristic of adult learners, who will be more heterogeneous than a comparable group of younger learners (Knowles, 1984). The participants constantly cited examples of particular clients, coworkers, and continuing education speakers to illustrate their points.

Even though the participants were all female, live and work in the same province under the same regulations, and have similar education, as a result of each person's different experiences, their thoughts and views differed in several areas. Several participants felt that they can learn about any topic, as long as what the speaker has to say is interesting and is presented in an upbeat format. Others explained that the topic must be directly applicable to their lives, and were less critical about the capabilities of the speaker. They gave both good and bad examples of courses and speakers. A course was good if they learned something new, even if the information was presented in an unengaging manner. On the other hand, a course was described as good if the speaker
kept them interested in the topic, even if the topic did not relate directly to dental hygiene practice.

It was not clear that the dental hygienists in this study became ready to learn when confronted with a problem, because in response to a query regarding readiness to learn, they did not specifically state that they seek information to solve a problem they had encountered at work. This motivation to learn when confronted by a problem is a third assumption about adult learners (Houle, 1980). Daley and Mott (2000) also discuss challenges in the workplace as being a stimulus to participate in continuing education activities. Though the study participants did not relate specific examples of clinical problems, perhaps when they talk to colleagues or read journal articles, and identify a need for learning, they are picturing a case where the learning could be applied. In other words, the learning will solve a problem that they have encountered.

The last assumption about adult learners identified in the literature was that the motivation for adults to learn is internal (Knowles, 1984, 1990). The participants in the study again proved to be typical adult learners. When it was suggested that the mandatory continuing education requirements were one reason for attending courses, they quickly explained that the requirement was only a beginning. They were attending the courses most often because they felt that the application of the learning was the most important element of continuing education.

The findings of the study may also be compared to the features of continuing professional education, as outlined by Houle (1980), who explained that learning is an active process where people gain knowledge or skills, and the role of continuing education activities is to facilitate this acquisition. The participants felt that the
application of learning was essential for a continuing education activity. Both Houle and the participants agreed that in order to learn, learners must be actively engaged with the subject material. In a study on nurses in Kentucky, however, Slusher, Logsdon, Johnson, Parker, Rice and Hawkins (2001) found that fewer than half the respondents were able to implement changes to their practices following continuing education activities. The nurses said that the material was not related to their practice or that they were not in a position to implement changes. However, a majority of the nurses felt that the information might be useful at a later date.

Houle (1980) also states that adults seek education to gain more complex knowledge and to become more sensitive to ethical problems. Feherenbach, Baker-Eveleth and Bell (2001) explain that the desire to practice to the highest standards validates one’s ethics. The complexity of dental hygiene practice was revealed repeatedly in the focus group interview. The initial discussion centred on self-assurance, confidence, and problem-solving abilities as essential components of a competent dental hygienist. Further, the importance of individualizing care for each client and instilling the values and attitudes of the profession in new practitioners were discussed as being essential to proficient dental hygiene practice. The last discussion summarized these complexities and the participants expressed an interest in having more continuing education activities that focused on such skills as motivating clients and changing clients’ behaviours.

The participants did not refer directly to ethical problems that they have encountered. However, from the perspective of the profession of dental hygiene, doing what is right professionally is the ethical way of acting (Darby & Walsh, 1995). The preferred way of acting must be agreed upon by the profession and by society. The focus
group participants mentioned professional conduct as an important feature of a competent practitioner. Therefore, according to the definition by Darby and Walsh, professional conduct is an ethical issue. The focus group participants discussed the measuring and learning of professional conduct at great length. Ultimately, their discussion illustrates Houle’s (1980) idea that adults use continuing education activities to assist in dealing with ethical problems.

Houle (1980) described three modes of learning that may be utilized by professionals: 1) inquiry, or creating new policies; 2) instruction, or dissemination of skills and knowledge; and 3) performance, or the application of the new method. The focus group interview participants illustrated two of the three modes. The participants view continuing education activities as a way to learn new methods and to use new products. This is an example of the second mode, instruction. The third mode, performance, applies the new knowledge and skills until they become integrated into everyday dental hygiene practice. The dental hygienists in the study illustrated this third mode, by emphasizing that the application of new knowledge and skills was the most important part of a continuing education activity.

In his discussion of continuing professional education Houle (1980) explained how the modes of learning contribute to the achievement of the profession’s goals. In this study, the dental hygienists stressed the importance of practicing professionally. One goal of the profession of dental hygiene is to provide high quality oral care. Practicing professionally, following the code of ethics, keeping abreast of new developments in knowledge and skills should result in high quality care for dental hygiene clients. Unintentionally, the focus group participants delineated the work towards this goal. They
also addressed the achievement of the goals of problem solving and application of new knowledge explaining that self-assessment skills are used to identify problems encountered in practice, and that a continuing education activity has to be applicable to be useful.

The subject of praxis was addressed throughout the focus group interview. The participants concur with Galbraith (1991) when they discuss their learning since graduation, speaking of ‘tailoring the treatment’ and finding the limits to what you can influence. These statements illustrate Galbraith’s claim that knowledge is created according to the experiences of the learners (1991). In the same vein, Cervero (1988) describes Schon’s model of professional practice as ‘reflection in action.’ The focus group participants identified self-assessment and examining one’s conscience as two means of diagnosing areas requiring further learning.

One of the most exciting findings of the research was the continual emphasis of the importance of social relations to theory and practice. This relationship fits with the findings of Cervero (1991) who concluded that the best relationship between theory and practice exists when they are indivisible, and this amalgamation occurs through social relations. In the first discussion with the participants, effectiveness in social relations was considered as being one of the essential qualities of a competent hygienist. It was mentioned again as an element that contributed towards an effective self-assessment. Seven of the eight changes that the participants had identified in their practices were in the area of social relations. Ultimately, the focus group participants provided strong support for Cervero’s theory, that knowledge and skills were not useful until put into
practice, and that their relations with their clients, colleagues and coworkers ultimately mediated the application of that knowledge and skills.

Summary

In this section, I compare the results of the focus group interview to the specific questions I had raised at the beginning of the study. I draw conclusions and discuss the implications the study has for dental hygiene practice in Saskatchewan. Finally, I make recommendations for further study and research.

Using a focus group interview, I sought answers to questions relating to competent dental hygiene practice, maintaining competency over time, changes in dental hygiene practice over time, and the contribution of continuing education activities to maintaining competence.

What constitutes continued competency within the dental hygienist context? The focus group participants suggested that a competent dental hygienist should possess confidence, organizational ability, efficiency, professionalism and effective psychomotor skills.

Is it different than the competency demonstrated in order to graduate? How is it different and how can it be measured? A novice practitioner must demonstrate a professional appearance, sincerity and empathy before the additional qualities can be acquired, but measuring these qualities presents a challenge. Self-assessment was suggested as the primary method for measuring competency. Reports from clients and coworkers and length of time an individual remains active in the profession were also cited as indicators of competence.
What Continuing Education activities are preferred? Why? The participants preferred learning activities that were relevant to their personal or professional lives, featured group discussions and problem solving, and were conducted by competent facilitators. They noted that integration into practice was the critical factor in determining which activities are preferred, stating that the above features enabled the transfer of learning to their individual practices.

What activities lead to a change in practice? Why? The dental hygienists in the study agreed that self-assessment is the factor that drives change, because it identifies critical clinical areas requiring attention. The enthusiasm that one has for the profession then guides the practitioner to seek appropriate learning opportunities to rectify the weak areas. Other activities leading to a change in practice include discussion with colleagues and reading recent journal articles. An examination of one’s conscience also can contribute to making a change in practice. As preventive oral health professionals, dental hygienists collaborate with individuals and groups to enable them to attain and maintain oral health. Careful attention to conscience will reveal if these collaborations are not being carried out with dignity and respect for others.

How do skills change following graduation? In this study, the dental hygienists identified three areas of practice that had changed since graduation. First, they highlighted interpersonal skills as the area where they had developed the most. These skills included improved relationships with coworkers and an enhanced ability to remember details about each client from appointment to appointment. They also noticed being more selective when choosing dental hygiene interventions. This selectivity can be explained as the change from strictly applying techniques learned in school to the ability
to modify methods and techniques to solve problems (Murphy, 2002). The ability to modify one’s practice illustrates the growth in a practitioner from novice to expert. Thirdly, they noted change in their perspectives on the outcome of dental hygiene care. Where once they strove for perfection in their clinical interventions, they now appreciate that perfection does not always lead to a better result for the client.

What prompts change? As mentioned previously, the focus group interview participants identified that critical reflection and self-assessment of one’s practices prompt change in that practice.

Conclusions

This study sought the perceptions of experienced dental hygienists regarding maintaining proficient practice. The questions raised in the study related to definitions of competence, quality assurance programs in the health professions, continuing professional education and adult learning principles. In a focus group interview, questions were posed regarding competent dental hygiene practice and the relationship of continuing education activities to that competence. There were no differences in opinions between dental hygienists who practice in urban or rural areas.

The dental hygienists in this study identified interpersonal and self-assessment skills as being critical components of a competent dental hygiene practice. As for continuing education activities, the participants observed that the new knowledge and skills must be applied before declaring the activity successful. The participants also noted that if facilitators of continuing education activities follow the principles of andragogy, the likelihood that the new knowledge and skills will be incorporated into everyday
practice is enhanced. The opinions of the dental hygienists in this study did not differ greatly from those of nurses summarized in the review of the recent literature in Chapter 2.

The effect of improved everyday practice on the profession of dental hygiene as a whole was not mentioned. The participants discussed continuing education and maintaining proficient practice as an individual issue, not as a collective issue.

Implications

This study has implications for dental hygiene educators, the SDHA Continuing Education Committee and for facilitators of continuing education activities.

1. Self-assessment skills for dental hygienists should be developed during their preprofessional education. Providing adequate, effective, and safe dental hygiene care throughout one’s career relies on continuous assessment of one’s own practice. Asadoorian (2001) described the importance of an accurate self-assessment by explaining that individuals cannot apply learning if they do not appreciate the need, and that education has little value if it is considered irrelevant. Maintaining proficient dental hygiene practice depends on self-assessment skills.

2. Continuing education activities should include strategies to integrate the content into practice. Currently, facilitators ask participants to evaluate the activity immediately after the end of the session. Perhaps asking participants to evaluate it three months later would encourage application of the new knowledge and skills. This feedback would also be useful for the facilitator. If the skill were not being applied, the deficiency could be addressed immediately.
3. The Clinical Practice Standards should be used as a basis for a quality assurance program. Their use would ensure that perceived as well as educational needs are being identified and met (Woolf, 1993). Because the standards are maintained, applied and evaluated by dental hygienists they would be viewed as a valid and reliable assessment tool.

4. As well as continuing to sponsor activities relating to technical skills and techniques, the Continuing Education Committee should consider sponsoring activities relating to interpersonal communication skills, professional values and attitudes.

5. Applying principles of adult learning is critical to the success of a continuing education activity. Such activities should include group discussions, problem solving and an opportunity to apply the knowledge or skills to a practice situation.

6. Since the policies and strategies regarding continuing education and competence in the profession of nursing are often applicable to the dental hygiene profession as well, dental hygienists can look to nursing for guidelines until the dental hygiene profession has constructed its own.

Recommendations for Further Study

The findings of this study and the review of the literature reveal several areas requiring further research and investigation. For example, the lack of research by dental hygienists relating to dental hygiene practice was apparent.

1. More research is needed to determine the effects of continuing education on the outcomes of client care. This research should use valid and reliable tools, and should be specific to dental hygiene practice.
2. Information on the maintenance or deterioration of dental hygiene psychomotor skills over time would assist in developing a quality assurance program.

3. Tools to measure interpersonal communication skills in the context of dental hygiene practice must be developed.

4. The accuracy of self-assessment skills should be investigated.

5. The perceptions of a more representative group of dental hygienists should be elicited regarding the issues of competence and continuing education.

With the gradual shift to self-regulation in the dental hygiene profession across Canada, dental hygienists will be able to take more responsibility for their own practice. Hopefully, this will result in the development of practices that are specific to the profession, leading to professional growth and pride.
REFERENCES


SDHA CONTINUING EDUCATION GUIDELINES

INTRODUCTION

As preventive oral health care professionals, it is incumbent for dental hygienists to remain informed of changes in oral health care delivery methods, clinical procedures and technological advances in the attainment and maintenance of oral health. The Saskatchewan Dental Hygienists' Association has determined that continuing education, or educational and informational renewal, will assist hygienists to remain current in their roles as clinicians, educators, and client advocates.

CONTINUING EDUCATION COMPONENTS

All continuing education programs, courses or equivalent must have significant intellectual or practical content related to the practice of dental hygiene or to the professional responsibility or ethical obligations of the member. Members may be asked to submit additional information about activities, including an explanation of the relationship of the course content to the member’s practice.

The following categories have been designed to allow members to receive credit for courses that meet their individual needs.

A.) DENTAL HYGIENE PRACTICE
Courses that relate to the practice of dental hygiene in the areas of clinical dental hygiene, health promotion, research and education are eligible for credit with a minimum requirement of 18 credits per 3 year period.

B.) PRACTICE MANAGEMENT
Courses that relate to the administration or management of the dental hygienist’s practice of dental hygiene.

C.) PROFESSIONAL INVOLVEMENT
Promoting the advancement of dental hygiene through SDHA/CDHA.

D.) PERSONAL ENHANCEMENT
Programs that enhance personal health and well-being and contribute to a healthy dental hygiene work environment.

CREDITS

Credit Requirements

Members will require 36 continuing education credits in a 3 year period.

New Graduates: -the 3 year reporting period will begin in January following graduation.
New Registrants:  
- If registered prior to July 1, the 3 year reporting period will begin the previous January 1.  
- If registered after July 1, the 3 year reporting period will begin the following January 1.

Credit hours in excess of those required in a 3 year cycle cannot be carried forward to a subsequent period.

Local anesthesia courses taken as a requirement for full licensure are not eligible for credit.

Members holding a nonpractising licence must maintain their continuing education credits.

Those who do not meet continuing education requirements will be subject to Section 52 of the Saskatchewan Dental Hygienists' Association's Regulatory Bylaws.

Reporting of Credits

Members are responsible for keeping track of their own continuing education hours and for reporting those hours to the registrar's office. If a sign-in sheet is provided at a course, confirm with the facilitator that the sheet will be forwarded for credit.

Continuing education courses or professional development activities sponsored by SDHA will be pre-approved. Members must provide proof of attendance at such courses or activities.

Members may be granted credits for courses or activities not sponsored by SDHA, however, will be asked to provide further information to the registrar. If members are unsure if courses will qualify for credit, prior approval should be obtained.

For conventions or conferences with a variety of sessions, members must clearly indicate which session(s) were attended. Submissions must include the subject and content of each session for which credit is requested.

Submissions for credits may also be made on group forms. Group submissions must include all necessary information as well as the member's signature.

Records

It is the member's personal responsibility to ensure that continuing education credits are reported on a regular basis.
The registrar will provide all members with a transcript annually. Members will receive notice of their status in July.

It is each member's responsibility to maintain a continuing education file containing detailed information on each course activity attended.

In the event of a discrepancy between the records of the member and the records of the registrar, the member will be required to produce evidence to the satisfaction of council that he/she has obtained the required continuing education credits.

**Guidelines**
Continuing education credits will be granted for continuing education courses or professional development activities according to policies approved by council.

Courses or activities will generally be accepted at hour for hour credit, unless otherwise stated. Only actual hours of lecture, instruction and/or practicum time are eligible for credit. Dental hygienists must provide proof of attendance at each course or activity. Such verification would be a certificate, receipt, summary of activities and a forwarded sign-in sheet.

**Miscellaneous**
Members are responsible for any costs incurred with acquiring continuing education credits. (i.e., registration fees, tuition fees, meals, travel, etc.)

**CONTINUING EDUCATION ACTIVITIES**

1. **Courses/Workshops**
   - Hour for hour credit for actual lecture and/or practicum time up to a maximum of 7 per day.
   - Courses may be offered by a variety of providers, in a variety of formats.

2. **Conventions/Conferences**
   - 5 credits for convention/conference registration in a single or multi-day dental, dental hygiene, or other health discipline, including provincial, national, international or interdisciplinary meetings or their equivalent. Additionally, members may submit for hour for hour credit for individual sessions, under Heading 1. Courses/Workshops.

3. **Study Clubs**
   - Hour for hour credit. Study clubs must be registered annually with the registrar.

4. **Individual Initiatives**
   - Hour for hour credit for self study courses with:
     - clearly defined objectives
Examples of such courses would include viewing educational tapes, completing courses in journals/newsletters or from the internet, as long as they meet the above criteria.

5. **Lecturers/Presenters/Facilitators/Mentors**
   - Lecturers, presenters, facilitators and mentors who provide dental hygiene presentations or instruction to study groups, health groups or educational programs, outside their regular duties, qualify for hour for hour credit. Such programs include special sessions, table clinics, guest lectures, workshops, courses, clinical or didactic portions of study clubs and presentations to dental or other health professionals.

6. **Preparation Time for Lecturers/Presenters/Facilitators**
   - Hour per course hour credit for preparation time for development of a new continuing education course or presentation.

7. **Faculty**
   - 10 credits per year acting as full time academic instructor in a program of Dental Hygiene.
   - 5 credits per year acting as a part time academic instructor or tutor/mentor in a program of Dental Hygiene.
   - 5 credits acting as an instructor in a program related to Dental Hygiene.

8. **Professional Involvement**
   - 4 credits per year for serving in an executive capacity of SDHA/CDHA.
   - Hour for hour credit for attending formal SDHA/CDHA annual, general, and/or standing committee meetings or for carrying out special projects as directed by the executive.
   - Hour for hour credit for acting as an official representative of SDHA.

9. **Advanced Study**
   - Members successfully completing programs applicable to dental hygiene practice that lead to a Bachelor, Master or Doctorate degree, from a recognized education institution, will qualify for 9 credits per 3 credit course of 35(or more) hours, or equivalent. A copy of the registrant’s transcript must be submitted.

10. **Dental Publications**
    - 3 credits per article related to dental hygiene practice (minimum of 500 words) published in a provincial newsletter.
    - 5 credits per article published in a national journal.
DELEGATION AND APPEAL - Section 21 (4-7) of the Dental Disciplines Act.

4) A registrant who is aggrieved by a decision of the registrar made pursuant to delegated power may apply to council to review that decision.

5) On a review pursuant to subsection (4), the council shall hear the review and may:
   a) direct the registrar to exercise the power in a manner that the council considers appropriate; or
   b) confirm the registrar’s decision.

6) On a review pursuant to subsection (4), the person aggrieved by the decision of the registrar has the right to appear in person before the council in support of the application.

7) A council shall cause the applicant to be informed in writing of its decision regarding the review.
INVITATION TO PARTICIPATE

You are invited to participate in a research study to learn more about what activities contribute the most to maintaining clinical competency. Your participation will assist me in writing a thesis for ED 901, and will contribute to the completion of a Masters degree in Human Resource Development. Your name was randomly selected from a list of dental hygienists who completed a three-year Continuing Education reporting period as of December 31, 2001.

Health Professions Acts in several provinces are requiring regulatory authorities to develop quality assurance programs. Dental hygienists are in the best position to determine what helps them to continue to provide quality dental hygiene care beyond graduation. I’d like to get dental hygienists’ views on:

- What is competency?
- How do dental hygienists maintain clinical competency?
- Why are some activities preferred over others? Are they the same for each hygienist?
- How does practice change once you graduate?
- What skills change the most? Physical? Social? Critical thinking skills?

In a focus group setting I would like 5 dental hygienists from rural practices and 5 from urban areas to discuss the above questions. There are no right or wrong answers to the questions, as I am looking for your opinions and perceptions. The discussion should take about two hours. The focus group will take place in Regina, on Saturday June 8, 2002, at SIAST. Fuel expenses will be paid for out-of-town participants.

I will videotape the discussion, transcribe the data, mail you a copy, and ask you to read the transcription to make sure it represents your thoughts accurately. You will not be identified by your real name on the transcript.

Please notify me by May 29, 2002

1) which time would be most convenient
   □ 8 AM – 10 AM (before the meeting)
   □ 10 AM – 12 noon (during the meeting – this is an option only if unanimous)
   □ 4 PM – 6 PM (following the presentation)
2) if you are unable to participate

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FOCUS GROUP QUESTIONS

Competence
1. List the characteristics of a proficient dental hygienist.
2. Sort into beginning and on-the-job acquired characteristics.
3. Explain how they could be measured.

Personal Competence
1. How do you determine if you’re competent?
2. What do you use to measure?
3. How often do you think about it?

Dental Hygiene Practice
1. Describe 1 thing that you know now that you didn’t know when you graduated.
2. Sort into 1) clinical skills; 2) critical thinking skills; 3) social skills.
3. Describe the events that contributed to this development.

Continuing Education
1. Describe a ‘good’ continuing education activity.
2. Why was it good?
3. How did it affect your clinical practice?
4. Describe the ideal continuing education activity.

Summary
1. Description of competent dental hygienist
2. Identify changes in practice
3. List of activities that contribute to proficiency
APPENDIX D – ETHICS APPROVAL
DATE: February 21, 2002

TO: Ms. Brenda Udahl
6 Rawlinson Crescent
Regina, SK
S4S 6G3

FROM: K. McNaughton
Chair, Research Ethics Board

Re: Sustaining Proficient Practice: Dental Hygienists' Perspectives.

Please be advised that the University of Regina Research Ethics Board has reviewed your proposal and found it to be:

1. ACCEPTABLE AS SUBMITTED. Only applicants with this designation have ethical approval to proceed with their research as described in their applications. The Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans requires the researcher to send the Chair of the REB annual reports and notice of project conclusion for research lasting more than one year (Section 1F). ETHICAL CLEARANCE MUST BE RENEWED BY SUBMITTING A BRIEF STATUS REPORT EVERY TWELVE MONTHS. CLEARANCE WILL BE REVOKED UNLESS A SATISFACTORY STATUS REPORT IS RECEIVED.

2. ACCEPTABLE SUBJECT TO CHANGES AND PRECAUTIONS (SEE ATTACHED). Changes must be submitted to the REB and subsequently approved prior to beginning research. Please address the concerns raised by the reviewer(s) by means of a supplementary memo to the Chair of the REB. Do not submit a new application. Once changes are deemed acceptable, approval will be granted.

3. UNACCEPTABLE AS SUBMITTED. Please contact the Chair of the REB for advice on how the project proposal might be revised.

K. McNaughton

Dr. R. Khalideen, supervisor