Summer 1994

Regulation of Dental Hygienists: Its Effect on Disciplinary Action and Opinions of Regulatory Board Members in the United States and Canada

Jodie A. Mueller
Old Dominion University

REGULATION OF DENTAL HYGIENISTS: ITS EFFECT ON DISCIPLINARY ACTION AND OPINIONS OF REGULATORY BOARD MEMBERS IN THE UNITED STATES AND CANADA

by

Jodie A. Mueller
B.S. December 1989, Marquette University

A Thesis Submitted to the Faculty
of Old Dominion University in Partial Fulfillment
of the Requirements for the Degree of

MASTER OF SCIENCE

DENTAL HYGIENE

OLD DOMINION UNIVERSITY
August, 1994

Approved by:

_____
Michele L. Darby (Director)

_____
Deborah B. Bauman

_____
JoAnn R. Gurenlian

ABSTRACT

REGULATION OF DENTAL HYGIENISTS: ITS EFFECT ON DISCIPLINARY ACTION AND OPINIONS OF REGULATORY BOARD MEMBERS IN THE UNITED STATES AND CANADA

Jodie A. Mueller
Old Dominion University, 1994
Director: Michele L. Darby

The purpose of this study was two-fold. The first was to examine the effect of regulatory status (dentist versus dental hygienist control) on disciplinary sanctions for dental hygiene practitioners. The second was to assess the opinions of board members concerning the regulation of the practice of dental hygiene. Regulatory bodies from jurisdictions with and without dental hygiene self-regulation in both Canada and the United States respectively were examined to determine if differences exist in opinions and sanctions exercised by the two. A self-designed questionnaire titled the Mueller-Dental Hygiene Regulatory Questionnaire was used to obtain descriptive data on a sample of 44 members of boards regulating dental hygiene.

The questionnaire was divided into three sections, "Disciplinary Sanctions," "Opinions," and "Demographics." Data obtained in the "Disciplinary Sanctions" portion of the study were from dentist controlled boards only. Members of dental hygienist controlled boards were unable to complete information concerning disciplinary sanctions, as they were newly formed and had not yet exercised disciplinary sanctions against dental hygiene practitioners. Data from the dentist controlled boards showed a great variability and no set

standard for exercising disciplinary sanctions against dental hygiene practitioners was observed. Data obtained in the "Opinions" portion of the study were analyzed using the Kendall Tau b measure of association. The results suggest wide variability in the opinions of both dentist and dental hygienist controlled boards concerning the regulation of the practice of dental hygiene. The Board members' opinions regarding the right of the dental hygiene profession to be self-regulated, whether dental hygiene should have regulatory autonomy from dentistry, whether self-regulation would benefit dental hygiene as a profession and whether dental hygienists on separate regulatory boards can more accurately monitor themselves are all strongly associated with the type of board the respondent was from. The two areas with the weakest association related to dental hygienists being educated enough to become self-regulated and dental hygiene self-regulation leading to independent practice.

ACKNOWLEDGEMENTS

The author wishes to express sincere gratitude to the following persons for their invaluable contributions to this investigation.

The Procter & Gamble Oral Health/American Dental Hygienists' Association Institute Fellowship program for helping to fund my graduate education and this investigation.

Michele L. Darby, BSDH, MS, Eminent Professor and thesis director, School of Dental Hygiene, Old Dominion University, Norfolk, Virginia, for continual direction, assistance, professional expertise, and guidance throughout this investigation and my graduate education.

Deborah B. Bauman, BSDH, MS, Associate Professor and thesis committee member, School of Dental Hygiene, Old Dominion University, Norfolk, Virginia, for her time, moral support, encouragement, and, assistance while writing this manuscript and throughout my graduate education.

JoAnn Gurenlian, PhD, President, Gurenlian and Associates and thesis committee member, for her expertise, time and critical review of this manuscript.

Linda Armacost, and the American Dental Hygienists' Association, for their assistance in obtaining information regarding the current structure of dental hygiene regulatory boards in the United States, policy statements and for keeping me informed about on going legislative information throughout this investigation.

The Canadian Dental Hygienists' Association, for their assistance in obtaining information regarding dental hygienist controlled boards in Canada, practice act information and for keeping me informed about on going legislative information throughout this investigation.

Michael Doviak, PhD, Old Dominion University, Norfolk, Virginia, for his consultation and assistance during statistical analysis.

John and Sharon Mueller, my parents, for their unending love, support and guidance throughout all my endeavors.

Julie A. Dunphy, BSDH, for her friendship, encouragement and moral support throughout this investigation and my graduate education.

Juliana J. Kim, BSDH, for her friendship, support, sense of humour and computer assistance during this investigation and throughout my graduate education.

Paul Schloemer, BA, MS, for his assistance in statistical analysis, computer assistance in the construction of the statistical figures and for his patience.

My family, Bob, Kristy, Kim and Michael Jahner, Paul and Lorraine Trapp, Anita Mueller, Dan Mueller and Peggy and Brandon Biscobing for their love, support and encouragement throughout my education.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

Professional regulation is the controlling or governing of a profession according to the statutes established by lawmakers of a legal jurisdiction (ADHA, 1992A; ADHA, 1992B; Woodward, 1992A). The purpose of regulating a profession is to assure the availability of qualified practitioners for meeting the healthcare needs of society. Regulation protects the welfare of the public by keeping unlicensed, unqualified personnel from performing services they are not competent to render (ADHA, 1992B; ADA, 1988B; Glover, 1989; Morris, 1989).

Self-regulation is the transfer of power from the government to the profession itself. Under the aegis of self-regulation, a profession maintains the authority within a legal jurisdiction, to discipline practitioners, set requirements for licensure, perform administrative responsibilities and determine educational standards within the practice act (ADHA, 1992B; Gurenlian, 1991A).

The concept of self-regulation is not new. As professions develop they often are given the power to govern their occupation in terms of licensure, practice and education (ADHA, 1992B). Professions are accorded self-regulatory status by virtue of "expertise and specialized knowledge, credibility and the agency relationship that exists between

practitioner and their clients" (Johnson, 1989). Put simply, this means that when a profession has a unique body of knowledge, public acknowledgement of its expertise, and societal trust, it is given rights and privileges to ensure that it serves in the best interest of the public. The governing body that is granted self-regulation is then held accountable by society for its own actions as well as the actions of its members (Johnson, 1989).

In most of United States and some parts of Canada, dental hygienists are under the legal purview of dentist controlled regulatory boards, meaning that the majority of the board is comprised of dentists, for example, boards of dentistry or boards of dental examiners. This situation is unique because most occupations, such as nursing, physical therapy, medicine and dietetics are self-regulated, that is, not regulated by another profession (ADHA, 1992B).

Dental hygiene self-regulation is a controversial topic between organized dental hygiene and organized dentistry. Self-regulation has been the goal of organized dental hygiene for years, but until recently had not been actively pursued or publicized (Berry, 1992A; Berry, 1992C). Through self-regulation, dental hygienists purport the desire to strengthen professional standards and advance the profession (Berry, 1992A). In its policy manual, "The American Dental Hygienists' Association supports self-regulation for the profession of dental hygiene (ADHA, 1992C)." And the ADHA

has, as one of its goals, to promote the self-regulation of dental hygiene (ADHA, 1992C). Furthermore, organized dental hygiene has expressed dissatisfaction with regulation by boards of dentistry, citing concerns such as: lack of representation, lack of voting privileges and economic self-interest on the part of the dentist. In contrast, dentists express the opinion that dental hygienists lack the education and training to become self-regulated (Berry, 1992A; Berry, 1992B; Berry, 1992C). Whatever the underlying reason for the opposing viewpoint, "turf wars" exist between the two professions.

Although the literature is replete with opinions on both sides, no studies could be found on the regulation of dental hygiene. Therefore, this study examined disciplinary sanctions for dental hygiene practitioners as well as opinions of board members concerning the regulation of the practice of dental hygiene. Regulatory bodies in jurisdictions with and without dental hygiene self-regulation were surveyed and results were analyzed and compared.

Statement of the Problem

This study focused on the following questions:

1. Is there a difference in the disciplinary sanctions exercised against those practicing dental hygiene by regulatory bodies in legal jurisdictions with dental hygiene self-regulation as compared to legal jurisdictions without

dental hygiene self-regulation?

2. Is there a difference in the opinions of board members regarding the value of self-regulation by members of boards in jurisdictions with dental hygiene self-regulation as compared to jurisdictions without self-regulation?

Significance of the Problem

The key purpose of a regulatory board is to protect the health and welfare of the public (ADHA 1992A; ADHA, 1992B; Woodward, 1992A). One way boards accomplish this is by disciplining the practitioners it regulates. When complaints are filed, the board investigates and holds hearings. If the complaint is substantiated, the board may impose disciplinary sanctions against the practitioner guilty of these wrongdoings.

Dental hygienists in the majority of the United States are regulated by boards of dentistry, comprised mostly of dentists, giving dental hygienists little if any say in how their profession is regulated (Gurenlian, 1991A; Reveal, 1989). Hence, complaint investigations and disciplinary decisions against dental hygienists are determined primarily by dentists. One question that arises is whether dental boards are adequately monitoring the practice of dental hygiene so that violations are identified and adjudicated promptly. Another asks if dental boards are sufficiently disciplining dental hygienists who do not comply with the

rules and regulations that regulate their practice. Licensing fees are collected from both dental hygienists and dentists to support the activities of the board. Therefore it is important to ensure that dental hygiene issues associated with consumer safety are being properly addressed.

Dental hygienists must be licensed in each jurisdiction in which they practice. This licensure requirement, because the licensure process may take up to one year, puts artificial restrictions on licensure, preventing a dental hygienist from working (Gurenlian, 1991A). Furthermore, the licensure process limits manpower and reduces public access to care. For these reasons, dental hygienists, who have expressed these concerns, may be more sensitive to fabricated restraints; therefore, promulgating rules and regulations that facilitate the licensure process and access to care rather than creating barriers to dental hygiene care.

The literature is abundant with opinions from both dentistry's and dental hygiene's perspective of the dental hygiene regulation issue. Unfortunately, established and documented facts regarding dental hygiene self-regulation could not be found in the literature. Therefore, informed decision making by legislators, oral healthcare providers and the public is contingent on data that support public policy and legislation which are in the best interest of the consumer.

This study investigated the concept of dental hygiene

regulation via regulatory boards. An attempt was made to determine and document how opinions and disciplinary action are affected in jurisdictions with and without dental hygiene self-regulation. Hopefully, the study's outcomes will facilitate future decision making on the regulation of dental hygienists that is based on fact rather than emotion.

Definition of Terms

Terms significant to this study are defined as follows:

1. Dental Hygiene Self-Regulation. A legal status that refers to dental hygienists regulating themselves, having the power to discipline, the authority to make rules and regulations that put legislation into practice and performing administrative activities such as carrying out the procedures for licensure and relicensure (ADHA, 1992A; ADHA 1992B; Gervasi, 1990; Lyons; 1992; Terhune-Alty, 1992; Woodward, 1992A). Self-Regulation was a non-manipulated independent variable under study.

2. Disciplinary Sanctions. Standardized procedures for the enforcement of laws to insure the public of the adequacy of professional competence and conduct (Washington, 1990). The authority is given to regulating bodies of a profession or occupation to penalize and impose retribution to individuals in violation of the practice act. Disciplinary sanctions may include, but are not limited to, reprimand, remedial or continuing education, reexamination, office inspection,

community service, monetary penalty, cease and desist, probation with terms and conditions, suspension, and revocation. Disciplinary sanctions was a dependant variable under study, measured by the Mueller-Dental Hygiene Regulatory Questionnaire.

3. Legal Jurisdiction. The territory or boundary which sets the range of authority for the regulating body. For this study, states, districts and provinces were used to denote a legal jurisdiction.

4. Opinions. Personal interpretations and beliefs of members of regulatory boards concerning the regulation of dental hygiene. Opinions were reflected by one's position about a statement as measured by a Likert scale of strongly agree, agree, no opinion, disagree and strongly disagree. Opinion on dental hygiene regulation was a dependant variable under study, measured by the Mueller-Dental Hygiene Regulatory Questionnaire.

5. Licensure Requirements. The requirements set forth by state statutes and regulatory boards within a particular legal jurisdiction which regulate the standards for receiving a dental hygiene license, allowing only those who meet minimal qualifications to practice.

6. Professional Regulation. The controlling of practice domains and qualifications for practitioners providing care to insure the protection of the public, so that safe, quality services are provided to each individual (ADHA, 1992A; ADHA,

1992B; Johnson, 1989; Lyons, 1992; Ontario, 1988; Woodward, 1992A).

7. Unsupervised Practice. Dental hygiene services planned and provided by a licensed dental hygienist without the supervision or permission of a licensed dentist (ADA,1975; Lyons, 1992). Unsupervised practice of specifically delineated dental hygiene services is legal in the state of Colorado and in some public health settings of Washington.

Assumptions

The following assumptions were made for this study:

1. Disciplinary actions by and opinions of regulatory bodies in legal jurisdictions with and without dental hygiene self-regulation can be measured through a self-designed questionnaire titled, the Mueller-Dental Hygiene Regulatory Questionnaire (See Appendix A).

2. Content validity was established by submitting the Mueller-Dental Hygiene Regulatory Questionnaire to a committee of dental hygiene experts and staff from the American Dental Hygienists' Association's Professional Development Division for critical review and subsequent revision.

3. Members of regulatory boards are knowledgeable about the interpretations of the laws regarding disciplinary sanctions in their jurisdictions. It is the board's interpretation, not personal interpretation, that is reflected in the responses to the questionnaire, with the exception of

the data collected in the "Opinions" section of the instrument.

4. At the time the research was conducted, there were no states within the United States with dental hygiene self-regulation. Since that time the state of New Mexico has become self-regulated (ADHA, 1994).

Limitations

The investigation was limited by the following factors:

1. The questions might have been misinterpreted by the respondent. To control for this, a pilot study was conducted, and pilot data were utilized to revise the questionnaire.

2. The environment in which the survey was taken could not be controlled; therefore, the respondents received specific directions via cover letter and were informed of the approximate time it would take to complete the questionnaire.

3. A low response rate could have biased the results. To control for this outcome, nonrespondents were mailed a second questionnaire to try and establish an acceptable return rate. Eleven nonrespondents were called on the telephone to further encourage their participation.

4. Respondents might have had strong opinions regarding dental hygiene self-regulation, and therefore, chosen to forgo participation in the survey, resulting in subject selection bias and a poor response rate.

5. Dental hygiene self-regulation is a controversial

issue between dentistry and dental hygiene. This controversy might have accounted for the low response rate from dentist controlled boards and the high response rate from dental hygienist controlled regulatory boards.

6. At the time of the study, the Canadian provinces of Alberta, Ontario and Quebec were the only jurisdictions within the United States and Canada that were truly self-regulated. This fact limited the use of a jurisdiction with self-regulation in the pilot study. Furthermore, jurisdictions with self-regulation could not be chosen randomly.

Methodology

The purpose of this study was to (1) examine the effect of self-regulation on disciplinary sanctions exercised by regulatory boards toward practitioners of dental hygiene, and (2) explore the opinions of members of dentist controlled boards as compared to dental hygienist controlled boards on the regulation of dental hygiene. Governing bodies from legal jurisdictions with dental hygiene self-regulation: Alberta, Ontario and Quebec, and jurisdictions without dental hygiene self-regulation: Maine, Wyoming and Georgia, were surveyed and an attempt was made to measure differences between the two forms of regulatory control.

The Mueller-Dental Hygiene Regulatory Questionnaire was pilot-tested using a sample which consisted of board members from Louisiana. Once validated, the questionnaire was sent to

the sample population. All participants in the study received a packet containing a cover letter, the Mueller-Dental Hygiene Regulatory Questionnaire, a return postcard and a postage paid return envelope (See Appendices A, B, C and D). Non-respondents received a second packet. Data were then analyzed using the Kendall Tau b measurement of association and frequency distributions.

CHAPTER 2

REVIEW OF THE LITERATURE

The purpose of this review is to analyze literature related to the self-regulation of dental hygiene practice. Areas examined include: history of self-regulation, self-regulation and licensure, self-regulation and disciplinary sanctions, self-regulation and the consumer, the controversy between dental regulation and dental hygiene self-regulation, the Washington state model for the regulation of dental hygiene and Canadian self-regulation of dental hygiene practice.

History of Self-Regulation

Regulation of a licensed profession is a government function. In the 1850's regulatory authority was given to the leaders of professional groups based on the need to distinguish between those who had training and those who did not. What followed was the formation of professional associations with strict guidelines for admittance based upon educational standards of practice and codes of ethics. However, these associations had no legal authority. Unqualified practitioners could be withheld from the organization, but could not be kept from practicing (ADHA, 1992B; Francis, 1993; Woodward, 1992A).

Physicians were among the first professionals to recognize the need for self-regulation. Formally educated medical practitioners, frustrated with the aforementioned lack of standards sought legislation to ensure that unqualified practitioners would be legally restricted from practice. This trend was perceived to be in the best interest of the public and the profession. Legislators agreed that incompetent "doctors" were harmful to the health, safety and welfare of the consumer and anxiously passed laws to protect the public. In essence, legislators adopted the requirements, practice standards and codes of conduct already established by the associations and codified them into law. Regulatory boards, that is, committees made up of professional practitioners in good standing, were charged with the implementation and regulation of these new statutes, as legislators did not possess the expertise to oversee them. Hence the birth of self-regulation in the United States. As other disciplines sought formal recognition, self-regulation was sought and usually granted by the legislatures (ADHA, 1992B; Woodward, 1992A).

Self-Regulation and Licensure

Licensing of a profession is a means by which a governmental agency grants permission to persons meeting minimal requirements to engage in that particular occupation (Woodall, 1987). Regulating licensure not only controls how people practice, but also denies the privilege of licensure to

those who do not meet particular requirements set forth by the regulatory board. Anyone who has not earned licensure may not practice that profession legally. Boards regulating the practice of dental hygiene control the number and type of licenses issued and also the scope of services the dental hygienist is allowed to perform (Allukian, 1991).

The jurisdiction's lawmaking body determines appropriate areas of legal control for the licensure of a particular profession. In general, there are five areas that can be included under a legal jurisdiction's control of a licensed profession via the practice act and/or rules and regulations made by the regulatory board. The first of these areas of control involve determining requirements for licensure including minimal educational preparation and types of examinations necessary to demonstrate adequate competence. Second, the law defines the "scope of practice," prohibiting those without a license from rendering care. This area of control attempts to keep unqualified persons from performing procedures beyond their ability and training. Third, the law may set requirements for day to day practice and guidelines for what is considered unprofessional conduct. The law also may dictate what the licensure process is and whether a fee is involved. Lastly, the law may outline the disciplinary process, removing, suspending or limiting licenses and levying fines (ADHA, 1992B; Woodward, 1992A). Each legal jurisdiction has its own distinct statutes, which may or may not include

all of the aforementioned areas.

In 1915, a scope of dental hygiene pr
defined by the laws of the state of Conne
Motley, 1983; Woodward, 1992A). The first den
was licensed on July 1, 1917 (Motley, 1993). However, the laws and regulations that govern dental hygiene in the United States were and still continue to be, a subset of the statutes that regulate dentistry (ADHA, 1992B; Woodward, 1992A).

To become a licensed dental hygienist in the United States, one must first graduate from an accredited school. Currently, the only accrediting agency for formal dental hygiene education is the American Dental Association (ADA) Commission on Dental Accreditation (CODA). A dental hygienist must receive a passing score on the ADA Joint Commission National Board Dental Hygiene Examination or a written test administered by a state regulating board (Reveal, 1989). The jurisdiction also may require that in addition to the National Board, a state or regional practical examination administered by a regulatory testing agency be taken.

The exception to this aforementioned procedure for becoming a licensed dental hygienist in the United States occurs in the state of Alabama in which the majority of dental hygienists are trained on-the-job by the dentist (Reveal, 1989). Although these preceptor-trained hygienists are required to complete some limited didactic course work, they

are barred from taking the National Board Dental Hygiene Examination since eligibility is contingent upon graduation from an accredited school of dental hygiene, which these students have not accomplished.

The National Board Dental Hygiene Examination is under the control of organized dentistry. Although many questions on the examination are written by dental hygienists, the Joint Commission on National Dental Examinations that oversees test construction and administration is controlled by the ADA (ADHA, 1992A; ADHA, 1992B; Berry, 1992A; Woodward, 1992A).

Dental hygienists must be licensed in each jurisdiction in which they wish to practice, thus creating a potential barrier to employment. For example, "when relocating it may take between three months to one year for the hygienist to receive a new license (Gurenlian, 1991A)." The lost wages that result are not due to incompetence or lack of training on the part of the hygienist, but are consequences of artificial and restrictive policies on licensure requirements (Gurenlian, 1991A).

Under dental hygiene self-regulation, dental hygienists could design, implement and evaluate national regulations for dental hygienists. National regulations could standardize education and scope of practice for dental hygienists. It might also allow dental hygienists to move from state to state without the constraint of taking additional examinations. In addition, the appropriateness of clinical examinations would

be determined by dental hygienists (Gurenlian 1991A; Berry, 1992A; TDHA, 1993). The results would enable dental hygienists to modify or eliminate poorly validated examinations for licensure. Perhaps most important, decisions about dental hygiene licensure renewal would be made by dental hygienists whose primary concern is the competence of their peers (ADHA, 1992A; ADHA, 1992B; Woodward, 1992A). Continuing education policies, periodic testing and assessment procedures could be established, allowing relicensure for those who comply with regulations and standards, and denying relicensure to those who fail to demonstrate continued competence.

Self-Regulation and Disciplinary Sanctions

Consumer protection is achieved, in part by granting regulatory boards the authority to discipline practitioners for substandard care and unprofessional conduct (ADHA, 1992B; ADA, 1988B; Darby, 1983; Glover, 1989; Morris, 1989; Romary, 1989). Regulatory boards act as prosecutor, judge and jury because of their responsibility for disciplining licensed professionals (Allukian, 1991). Therefore, it is essential that regulatory boards invest adequate time monitoring the profession they are charged to control. Dental hygienists are subject to disciplinary action by licensing boards in the same way as are dentists. In jurisdictions without dental hygiene self-regulation the majority of the practitioners making the decisions regarding dental hygiene disciplinary cases

involving dental hygienists are dentists, thus, giving less attention to dental hygiene issues (Gervasi, 1990A; Terhune-Alty, 1992). Currently, organized dental hygiene believes that dental hygiene issues are getting lost among all the other issues dental boards are responsible for (ADHA, 1992A; ADHA, 1992B; Woodward, 1992A).

Under separate dental and dental hygiene regulation, it is speculated that each board would have more time to monitor their own issues (ADHA, 1992A; ADHA, 1992B; Woodward, 1992A). Dental hygienists would be able to establish quality assurance programs and take action against their members for illegal or unethical practices. Under separate board control, it is anticipated that both dentistry and dental hygiene would have more time and autonomy to investigate disciplinary cases within their own area. Complaints would be analyzed more completely than under the dental board system, keeping incompetent practitioners from providing oral health services.

Licensing boards, in recent years, have been held accountable for taking disciplinary action against the members they regulate (Romary, 1989). Most states now have a sunset review process, the purpose of which is to evaluate the necessity of regulatory boards. The boards' performance is evaluated making it accountable to the public through its actions (Lyons, 1992). If through the sunset review process, the board is found delinquent in its responsibilities, the board can be dissolved. For example, in 1992, the Maryland

Board of Dentistry was subject to a sunset review. As a result, the review panel of the Maryland legislature found a severe backlog of disciplinary cases, practicing oral surgeons with expired general anesthesia licenses and misuse of funds. The head of the Maryland Department of Health, the Governor and the Attorney General introduced a bill which passed the state legislature firing the members of the Board of Dentistry. In October, 1994, new Board members will be seated (Armacost, 1994).

Self-Regulation and the Consumer

Elected officials are given the power to regulate licensed professions. In the United States and Canada, this power is transferred from the state or provincial government to the profession itself, because, it is the profession which possesses the expertise to oversee licensing laws (ADHA, 1992A). The profession then has the responsibility to protect the health, safety and general welfare of the citizens through their police powers (Lyons, 1992; Morris, 1989). It is for this same reason that consumers should have representation on regulatory boards. Consumer interests are not necessarily served by boards whose majority membership is comprised of persons from the licensed profession (Romary, 1989). Consumers voice concern that they need greater representation on state boards since it is their interest the Board is charged to protect (ADHA, 1992B; Gervasi, 1991A; Glover, 1989; Gurenlian, 1991A; Lyons, 1992; Morris, 1989; Romary, 1989;

Reveal, 1989; TDHA, 1993). Consumer members provide the opportunity for the board to hear the public's opinions. These opinions may influence licensure, education and disciplinary policies, and affect regulatory reform (Reveal, 1989). The addition of public members on all healthcare boards can give both the state (or province) and the public assurances of accountability and confidence (Washington, 1990).

Clients in most cases cannot assess their own oral healthcare needs or quality of professional services delivered. "The client's subordination to professional authority invests the professional with a monopoly of judgement" (Gurenlian, 1991A). For this reason, the regulatory board must protect the public by monitoring practitioner competence which may include disciplinary action when needed (Allukian, 1991). With board members, it is expected that decisions will be made with the health and welfare of the public in mind. All other groups' interest/self-interest should be secondary (Gurenlian, 1991A).

Regulation that is carried out by a balance of practitioners and citizens is the best venture according to the American Dental Hygienists' Association, the Institute of Medicine, as well as the Federal Trade Commission (ADHA, 1992B; FTC, 1980; Gervasi, 1990A; Gervasi, 1990B; Gurenlian, 1991A; IOM, 1988; Woodward, 1992A). In 1987 the Institute of Medicine criticized boards for relying on professional associations for accreditation standards, costing too much,

limiting mobility of practitioners, and ineffectively handling disciplinary procedures (IOM, 1988; Gervasi, 1991A). The Federal Trade Commission has observed that dentist members on regulatory boards have an economic self-interest in regulating and controlling dental hygiene practice, and has recommended either appropriate representation of dental hygienists on boards, or dental hygiene governing boards that are completely separate from dental boards (FTC, 1980; Gervasi, 1991A). Consumers have input on issues that affect them; practitioners provide a professional expertise. Integrating the groups on one board would create an equilibrium between two directly interested parties (ADHA, 1992B; Woodward, 1992A).

Controversy Between Dental Regulation And Dental Hygiene Self-Regulation

Hundreds of licensed professionals are self-regulatory. Included in this list are: physicians, nurses, dentists, physical therapists, cosmetologists and real estate brokers. Dental hygiene is a licensed profession which has not been self-regulated in the United States (ADHA, 1992B; Woodward, 1992A).

In the United States, dental regulatory boards, usually comprised primarily of dentists, regulate both dentistry and dental hygiene. As shown in Table 1, the number of dental hygienists currently maintaining positions on most dental boards in the United States is disproportionate to the number

Table 1

Boards Regulating the Practice of Dental Hygiene in the United States: Number of Board Members and Division of Representation Between Dental Hygienists, Dentists and Consumers.

LEGAL JURISDICTION	TOTAL # BOARD MEMBERS	TOTAL # DENTISTS BOARD MEMBERS	TOTAL # HYGIENIST BOARD MEMBERS	TOTAL # CONSUMER BOARD MEMBERS
ALABAMA	6	5	1	0
ALASKA	9	6	2	1
ARIZONA	11	6	2	3
ARKANSAS	9	6	1	2
CALIFORNIA	14	8	1	4 + 1 RDA
COLORADO	9	4	2	3
CONNECTICUT	11	5	2	4
DELAWARE	9	5	1	3
FLORIDA	11	7	2	2
GEORGIA	11	9	1	1
HAWAII	11	8	1	2
IDAHO	8	5	2	1
ILLINOIS	10	8	1	1
INDIANA	11	9	1	1
IOWA	9	5	2	2
KANSAS	5	3	1	1
KENTUCKY	9	7	1	1
LOUISIANA	14	13	1	0
MAINE	7	5	1	1
MARYLAND	14	9	3	2
MASSACHUSETTS	8	6	1	1
MICHIGAN	13	7	2	2 + 2 RDA
MINNESOTA	9	5	1	2 + 1 RDA
MISSISSIPPI	8	7	1	0
MISSOURI	7	5	1	1
MONTANA	10	6	1	2 + 1 OTHER
NEBRASKA	8	6	1	1
NEVADA	10	7	2	1

Table 1
(Continued)

LEGAL JURISDICTION	TOTAL # OF BOARD MEMBERS	TOTAL # DENTISTS BOARD MEMBERS	TOTAL # HYGIENISTS BOARD MEMBERS	TOTAL # CONSUMERS BOARD MEMBERS
NEW HAMPSHIRE	9	6	2	1
NEW JERSEY	13	9	1	2 + 1 OTHER
NEW MEXICO*	9	5	2	2
NEW YORK	19	13	3	3
NORTH CAROLINA	8	6	1	1
NORTH DAKOTA	6	5	1	1
OHIO	7	5	1	1
OKLAHOMA	11	8	1	2
OREGON	8	5	2	1
PENNSYLVANIA	13	7	1	2 + 3 OTHER
RHODE ISLAND	13	7	2	4
SOUTH CAROLINA	9	7	1	1
SOUTH DAKOTA	7	5	1	1
TENNESSEE	7	6	1	0
TEXAS	15	10	2	3
UTAH	7	5	1	1
VERMONT	9	5	2	2
VIRGINIA	10	7	2	1
WASHINGTON (STATE)#	6 DDB 10 DEB 4 DHC	5 9 0	0 0 3	1 1 1
WASHINGTON D.C.	7	5	1	1
WEST VIRGINIA	7	5	1	1
WISCONSIN	8	5	1	2
WYOMING	6	5	1	0

Source: American Association of Dental Examiners, Composite. Chicago, IL, 1992, (19-20).

*New Mexico became self-regulated in 1994 so the Board Composition is expected to change.

# DDB= Dental Disciplinary Board
# DEB= Dental Examining Board
# DHC= Dental Hygiene Committee
RDA= Registered Dental Assistant

of dentists. Historically, the composition of these boards has not provided for adequate dental hygiene representation (Reveal 1989; Grady, 1988; Terhune-Alty, 1992; Witherspoon, 1992; Woodall, 1991). The Canadian provinces of Alberta, Quebec and Ontario, which have dental hygiene self-regulation, reflect more dental hygiene representation (See Table 2).

Another area of controversy between dental and dental hygiene focuses on the voting rights of regulatory board members. Representation on a dental board does not guarantee the dental hygiene representative full voting privileges. In some legal jurisdictions without dental hygiene self-regulation, dental hygienists, as board members, may vote only on those issues concerning the scope of dental hygiene. In some cases, consumers have more voting power than do dental hygienists (Gurenlian, 1991A) (See Table 3).

When considering dental hygiene issues, it is the dental profession, not the dental hygiene profession, which determines how various factors influence dental hygiene practice. Dentists are both employers and competing providers of dental hygiene services. Dentistry is able to dictate how, where, when and for whom a dental hygienist may perform care. Dentistry alone is determining the good of public welfare, defining employment conditions for dental hygienists, and also controlling the economic interest of the dentist. Therefore, it is difficult for dentistry to view dental hygiene from an unbiased point of view. The issue of finances makes bias an

Table 2

Regulatory Boards in Canada that have Self-Regulation for the Practice of Dental Hygiene: Number of Board Members and Division of Representation Between Dental Hygienist, Dentists and Consumers.

LEGAL JURISDICTION	TOTAL # OF BOARD MEMBERS	# OF DENTIST BOARD MEMBERS	# OF HYGIENIST BOARD MEMBERS	# OF CONSUMER BOARD MEMBERS
ALBERTA	12	(1 OBSERVING ONLY)	8 (AND 1 OBSERVING ONLY)	2
ONTARIO	12	0	6	6
QUEBEC	16	0	13	3

Table 3

Voting Power of Members of Boards Regulating the Practice of Dental Hygiene in the United States.

LEGAL JURISDICTION	VOTING POWER OF THE DENTIST	VOTING POWER OF THE HYGIENIST	VOTING POWER OF THE CONSUMER
ALABAMA	FULL	NONE	--
ALASKA	FULL	FULL	FULL
ARIZONA	FULL	FULL	FULL
ARKANSAS	FULL	FULL	FULL
CALIFORNIA	FULL	FULL	FULL
COLORADO	FULL	FULL	FULL
CONNECTICUT	FULL	FULL	FULL
DELAWARE	FULL	FULL	FULL
FLORIDA	FULL	FULL	FULL
GEORGIA	FULL	FULL	FULL
HAWAII	FULL	FULL	FULL
IDAHO	FULL	RESTRICTED	RESTRICTED
ILLINOIS	FULL	FULL	FULL
INDIANA	FULL	FULL	FULL
IOWA	FULL	FULL	FULL
KANSAS	FULL	FULL	FULL
KENTUCKY	FULL	FULL	FULL
LOUISIANA	FULL	FULL	FULL
MAINE	FULL	FULL	FULL
MARYLAND	FULL	FULL	FULL
MASSACHUSETTS	FULL	FULL	FULL
MICHIGAN	FULL	RESTRICTED	RESTRICTED
MINNESOTA	FULL	FULL	FULL
MISSISSIPPI	FULL	RESTRICTED	--
MISSOURI	FULL	RESTRICTED	FULL
MONTANA	1 DENTIST IS NON VOTING	FULL	FULL
NEBRASKA	FULL	FULL	FULL
NEVADA	FULL	RESTRICTED	RESTRICTED

Table 3
(Continued)

LEGAL JURISDICTION	VOTING POWER OF THE DENTIST	VOTING POWER OF THE HYGIENIST	VOTING POWER OF THE CONSUMER
NEW HAMPSHIRE	FULL	FULL	FULL
NEW JERSEY	FULL	FULL	FULL
NEW MEXICO*	FULL	FULL	FULL
NEW YORK	FULL	FULL	FULL
NORTH CAROLINA	FULL	RESTRICTED	RESTRICTED
NORTH DAKOTA	FULL	RESTRICTED	--
OHIO	FULL	FULL	FULL
OKLAHOMA	FULL	FULL	FULL
OREGON	FULL	FULL	FULL
PENNSYLVANIA	FULL	FULL	FULL
RHODE ISLAND	FULL	RESTRICTED	FULL
SOUTH CAROLINA	FULL	RESTRICTED	RESTRICTED
SOUTH DAKOTA	FULL	FULL	FULL
TENNESSEE	FULL	FULL	--
TEXAS	FULL	FULL	FULL
UTAH	FULL	FULL	FULL
VERMONT	FULL	FULL	FULL
VIRGINIA	FULL	FULL	FULL
WASHINGTON (STATE)	FULL	FULL	FULL
WASHINGTON D.C.	FULL	FULL	FULL
WEST VIRGINIA	FULL	FULL	FULL
WISCONSIN	FULL	FULL	FULL
WYOMING	FULL	RESTRICTED	FULL

-- The Board has no current members in this area.

*New Mexico became self-regulated in 1994.

Source: American Association of Dental Examiners, Composite. Chicago, IL, 1992, (2-3).

inescapable matter (ADHA, 1992B; Brutvan, 1990; Gervasi, 1990A; Gervasi, 1990B; Gurenlian, 1991A; Lyons, 1992; Terhune-Alty, 1992; TDHA, 1993; Woodward, 1992A).

Dental hygienists are experts in the provision of dental hygiene care and therefore, are the most qualified to prepare and evaluate other dental hygienists for practice (ADHA, 1992B; Gurenlian, 1991B). This perspective is supported when examining the curricula taken by dental and dental hygiene students. Dental students spend the majority of their professional education performing and perfecting restorative procedures while little time is spent learning preventive oral healthcare. In comparison, dental hygiene students devote the majority of their education, approximately three times as many classroom and clinic hours, executing and refining preventive oral healthcare procedures (ADHA, 1992B; Darby, 1983).

Length of an appropriate education is also a controversial issue between the ADA and the ADHA. The ADA policy states that a two year education is adequate preparation to practice dental hygiene (ADA, 1988A). In contrast, ADHA policy states that a baccalaureate degree is necessary to practice dental hygiene in the future (ADHA, 1992C; Reveal, 1989). Being self-regulated would allow dental hygienists to determine educational standards appropriate to practice dental hygiene and then, if necessary, work with dental hygiene educators to establish curricula that meet

these standards.

Organized dentistry views the dentist and dental hygienist, not as separate professionals, but as members of a comprehensive dental care team. Creating a separate board of dentistry, they feel, would fragment this team (Stifter, 1993; Berry, 1992B). Furthermore, organized dentistry believes that a new board of dental hygiene would run counter to government efforts to eliminate unnecessary and duplicative bureaucracy, and that it would force the consumer to seek satisfaction from two boards, creating opportunities for wasteful duplication (Stifter, 1993). "The [American Dental] Association supports the concept of a single state board of dentistry in each state as the sole licensing and regulating authority for the practice of all dental care including the practice of dental hygiene (ADA, 1988)."

Organized dental hygiene views self-regulation and supervision as two separate issues. Regulation refers to how a profession is educated, licensed and disciplined. Supervision refers to where, when and with whom dental hygiene care can be provided. From the literature, it appears that most dental hygienists are not interested in fragmenting the oral health team. Most dental hygienists believe that self-regulation would not break up the dental team within the practice setting because it does not affect the employer-employee relationship (ADHA, 1992B).

Having a dental hygiene and a dental regulatory board

reflects the fact that while dentists and dental hygienists still work in close proximity, they are separate professions. Dental hygiene has evolved to the point where the issue of autonomy from dentistry and self-governance should be explored. Organized dental hygiene sees self-regulation as a legal means of securing the responsibility to make rules pertaining to licensure, educational requirements and disciplinary sanctions (Gervasi, 1992A; Lyons, 1992; Terhune-Alty, 1992). For dental hygiene, self-regulation would be an opportunity for growth and development as a profession (Gurenlian, 1991B). Self-regulation would make dental hygienists responsible for themselves, accountable to the public and allow them to make autonomous decisions pertaining to their regulation.

The Washington State Model for the Regulation of Dental Hygiene

Dental hygiene and dentistry always had separate practice acts in the state of Washington. Although a dental board regulated dental hygiene in the past, it had no statutory authority to administer the dental hygiene practice act. Therefore, the Washington Dental Hygiene Examining Committee was established in 1983 (Gervasi, 1990A; Grady, 1988). The practice of dental hygiene in Washington is advised by the Dental Hygiene Examining Committee which operates under the Secretary of the Department of Health (Lewis, 1994; Teachman, 1994). This committee has the authority to advise the

secretary regarding laws and rules pertaining to dental hygiene, and is comprised of three licensed, practicing dental hygienists and one consumer member. The consumer member cannot be in any practice or business related to dental hygiene and no member can be connected with any dental hygiene school. This committee and its operations constituted the closest model of dental hygiene self-regulation in the United States, until March 1994, when New Mexico dental hygienists achieved self-regulatory status (ADHA, 1994).

The Washington Dental Hygiene Committee acts in an advisory capacity to the Secretary of the Department of Health. The Secretary then has the authority of final rule making. There are five objectives which guide the Dental Hygiene Examining Committee. The first of these is to adopt rules necessary to prepare and conduct licensure examinations. The committee also must determine the content and scope of these written and practical examinations, set standards for passage of these examinations, administer at least two examinations each year and establish rules and procedures for an appeal of examination failure. In addition, the Secretary of the Department of Health has the authority to issue dental hygiene licenses to applicants who have not met the established criteria for licensure, employ clerical staff, maintain records of all applicants and licensees, establish minimal education standards for licensure, approve and evaluate educational programs and establish and implement, by

rule, a continuing education program (Washington, 1994).

In Washington, a separate Dentistry Examining Board is responsible for the licensure and educational standards for dental practitioners. The Dental Disciplinary Board, another separate board, also is under the direction of the Department of Health. Neither of these boards have any jurisdiction over the practice of dental hygiene (See Figure 1). The Secretary of the Department of Health is charged with investigating all complaints of unprofessional conduct, holding hearings, issuing subpoenas, taking depositions, conducting practice reviews, imposing sanctions against dental hygiene practitioners and adopting standards of professional conduct (Washington, 1994).

In Washington, dentistry still controls the ability of a dental hygienist to make a living due to some supervision restraints. However, dental hygienists are governed by a separate practice act, are responsible for their own actions and control their own licensing process.

Canadian Self-Regulation

Self-regulation of dental hygienists exists in Quebec, Ontario and Alberta, three provinces of Canada. This regulatory status accounts for 75% of all dental hygienists in Canada (Johnson, 1989).

Dental hygiene self-regulation developed in Canada because of politico-economic and sociocultural reasons that differ from those in the United States. In Canada, the

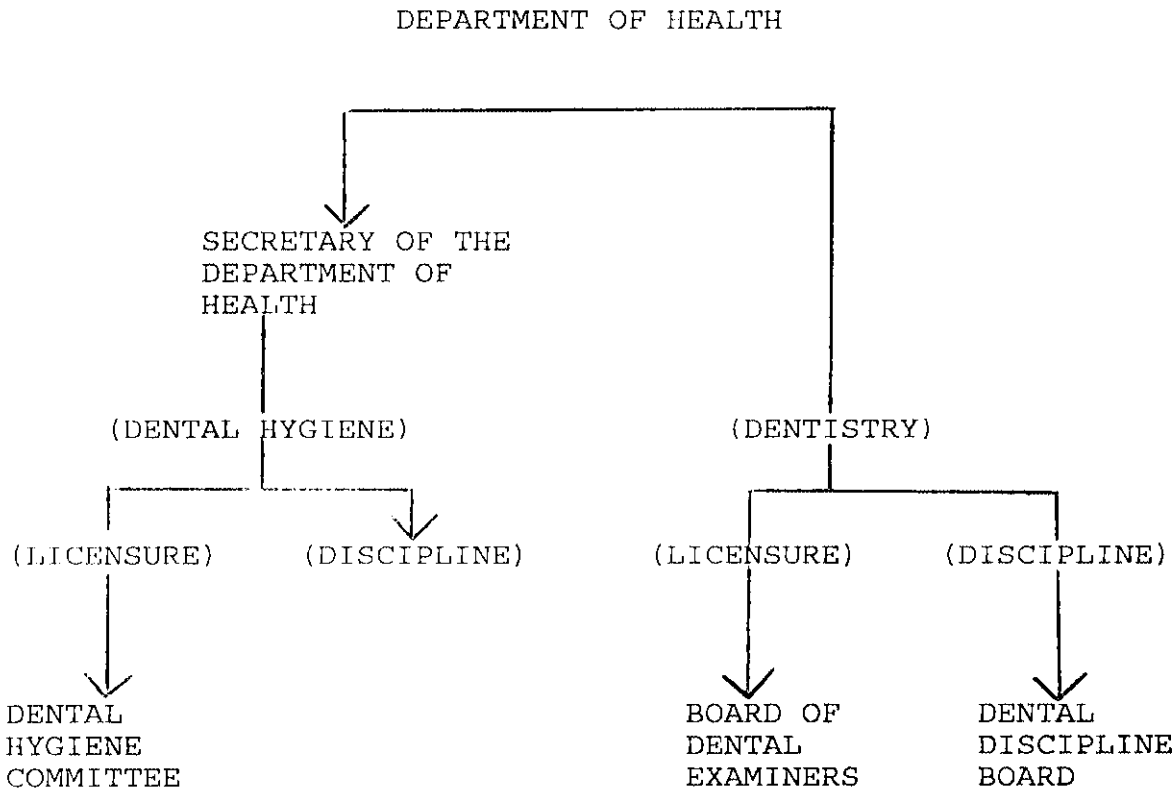


Figure 1.

The Washington State Model for the Regulation of Dental Hygiene and Dentistry.

healthcare system is organized differently than in the United States in that Canadians have publicly funded, universal healthcare. Healthcare accounts for 8.5% of Canada's Gross National Product (Johnson, 1989). In contrast, the United States presents a more competitive model where, at this time, government interference is minimal. (This may change if the Health Security Act of 1993 becomes law.) Although the Canadian dental health sector is not publicly funded, self-regulation of dental hygiene evolved from the ideas characteristic of the healthcare system as a whole.

In the political system of Canada, the legislature is the arena for political action and change. This system makes it easier for major changes such as self-regulation to occur. Most of Canada's legislature bills are initiated by the government not the private sector, making bills more resistant to lobbying. There is usually very little opposition once a bill is passed by the legislature.

In the United States, the sharing of power between the executive, legislative and judicial branches of government allows more opportunity for vetos and lobbying. Also, bills are replaced and amended readily. In contrast to Canada, United States dental hygienists, not the United States government, are initiating the idea of self-regulation to lawmakers. This leaves the concept vulnerable to opposition from organized dentistry.

Quebec

Dental hygienists in Quebec became self-regulating in 1973 (Johnson, 1989). At that time there was a major reform in Quebec's health and social service system which included revisions of the Quebec regulatory system for all professions.

Quebec's health and social service system is divided into five elements with the ministers of the provincial government having overall responsibility. The Office of Professions, a supervisory agency, has the authority and responsibility to make sure professional corporations meet their social responsibilities. The Interprofessional Council advises the corporations and is made up of representatives of each profession. Professional corporations, composed of legally appointed members of the profession it represents, maintain responsibility for supervising the practice of its members. There are 40 professional corporations, 20 of which are in the health sector. Professional corporations are separate from professional organizations. Finally, appointed directors, chosen from the public, are appointed to the bureaus of the corporations by the Office of Professions (Johnson, 1989).

The responsibilities and scope of practice for individual professional corporations are defined in the Professional Code of Quebec. Dental hygienists have "reserved title status." This means that dental hygienists have authority over title but not scope of practice. In contrast, dentists have "exclusive status," meaning that they have control over both

title and scope of practice. They also have the power to define the scope of practice of dental hygienists; however, the state may intervene in the division of labor to improve efficiency (Johnson, 1989).

The Corporation Professionnelle des Hygienistes Dentaires du Quebec (CPHDQ) is the governing body for dental hygienists. CPHDQ is administered by a board of 13 regional directors elected from the general membership known as the Bureau. It is the responsibility of these directors to enforce the rules and regulations in the Professional Code.

The Discipline Committee is chaired by a government appointed lawyer. This committee receives formal complaints and makes recommendations to the Bureau concerning suitable action. If convicted of a violation of the Professional Code, a practitioner can be subject to punishment ranging from a fine to revocation of the license to practice. The CPHDQ has standing committees on education, member services, elections and admissions. Ad hoc committees are appointed as deemed necessary by the COHDQ (Johnson, 1989).

The self-regulation of professions in Quebec serves as a landmark for dental hygiene. It has set a legal precedent for dental hygiene self-regulation in North America (Johnson, 1989).

Alberta

The Dental Disciplines Act was proclaimed in Alberta on

November 1, 1990 (discipline meaning occupation or profession, not punishment). This act included dental hygienists, dental assistants and dental technicians and was written to ensure independent and autonomous functioning of each professional association. As a self-governing profession, the Alberta Dental Hygienists' Association (Alberta DHA) gained public credibility and respect (Walker, 1993).

The Alberta DHA has power to regulate those who practice dental hygiene, and in order to practice dental hygiene, a practitioner must be registered with the Alberta DHA. As stated in section 1, subsection F, of the Dental Disciplines Act," 'Dental Hygienist' means a person who is registered as a member of the Alberta Dental Hygienists' Association (Alberta, 1990)."

The Alberta DHA has a governing body known as the Council. The Council is charged with conducting the business and affairs of the Association on the Association's behalf. A Registrar is appointed by the Council; it is the Registrar's duty to approve registration, refuse registration and defer the approval of applicants not meeting all of the set requirements for registration. The Council also appoints a Practice Review Board that advises the Council in respect to assessment and development of educational standards, evaluation of levels of competence of the membership of the Association, and the overall practice of dental hygiene.

A Discipline Committee is appointed by the Alberta DHA.

This Committee is responsible for hearing complaints, conducting hearings and reporting their findings to the Registrar. The Discipline Committee makes decisions on the validity of the complaints, determines if there is appropriate and sufficient evidence to warrant investigation and makes decisions on disciplinary sanctions (Alberta, 1990).

In Alberta, one goal of self-regulation was to enhance the relationship between the Alberta DHA and the Alberta Dental Association. As a result of self-regulation, members from the Alberta DHA and Alberta Dental Association sit on each others Board in a nonvoting manner. This structure facilitates direct dialogue and improves trust and harmony between the two groups (Walker, 1993).

Ontario

On January 1, 1994, the College of Dental Hygienists of Ontario (CDHO) began regulating the profession of dental hygiene within the province. Before this time dental hygiene in Ontario, was controlled by the Royal College of Dental Surgeons (RCDS) (Lyons, 1994).

In Ontario, all self-regulated health professions are governed by an umbrella act known as the Regulated Health Professions Act. Dental hygiene is one of 24 professions which this act regulates (Lyons, 1994). The uniform Act provides organizational, procedural and legal provisions that apply to every profession. In addition, each profession has

a separate Professional Act which outline specific provisions dealing with composition of councils and committees as well as each profession's scope of practice, licensure acts, requirements or regulations unique to that profession.

Although dental hygienists in Ontario are self-regulated, supervision of dental hygiene practice is controlled by dentists. In order for dental hygiene care to be rendered, it must be ordered by a member of the Royal College of Dental Surgeons (CDHO, 1993).

Dental hygiene self-regulation in Ontario had been in the making for ten years, before it became law. However, dental hygienists in Ontario will continue to challenge legislation and seek amendments so that they are able to provide services without written consent from dentists, thus making dental hygiene care directly accessible to the public (Lyons, 1994).

Self-regulation in Canada is believed to provide public protection by making professions more accountable for the action of their members and opening them up to public scrutiny. Accountability is enhanced by having an increased number of public members on regulatory boards, having open meetings and disciplinary hearings and requiring annual reports to be filed with the government. The Canadian model of self-regulation is a landmark in the history of dental hygiene, establishing a legal precedent for North America and the world (Johnson, 1989).

Summary

"The ultimate challenge for the dental hygiene profession is achieving self-regulation--having the authority to govern itself, to determine who is qualified to practice and what those qualifications are (Terhune-Alty, 1992)." Since founded in 1915, dental hygiene has developed and matured. Dental hygienists have come to recognize their responsibility, as a maturing profession, to be accountable to society for its members and the services they provide.

Being under the regulatory control of dental boards, dental hygienists have found themselves under represented, and with limited voting power on issues that affect them. Having separate regulating boards from dentistry might allow both professions more time to police themselves and meet societal obligation to protect the public's health and welfare. Enhanced consumer protection could be achieved through increased monitoring of practitioners, reevaluating licensure requirements and exploring issues of continuing education and competence.

If granted self-regulatory status, dental hygienists would determine disciplinary measures on cases that pertain to dental hygiene. Dental hygienists also would establish licensure and education requirements within their jurisdiction and exercise greater influence over accreditation standards for dental hygiene programs.

Organized dental hygiene and organized dentistry possess

opposing perspectives related to the regulation of dental hygiene. Both dental hygienists and dentists express that they are seeking to protect the public and advance their professions. Dental hygienists want control over education and licensure as well as disciplinary sanctions. Dentistry expresses the opinion that dental hygienists lack the proper training to be self-regulated. These various perspectives on the issue of professional regulation have created conflict between the two professions, and hinders dental hygiene in the promotion of it's goals and in becoming a true profession.

In Washington state, dental hygienists are able to control licensure, relicensure and education standards. Self-regulation in Canada has provided dental hygiene with professional identity and organizational structure (Johnson, 1989). Recent legislation on self-regulation for dental hygiene in New Mexico is an achievement which should set the pace for other jurisdictions to emulate (ADHA, 1994). All of these examples serve as models for organized dental hygiene in legal jurisdictions currently under the control of boards of dentistry.

Although conflicting perspectives on the advantages and disadvantages of the regulation of dental hygienists emanate from both dentistry and dental hygiene, no research reports could be found that support the claims of either dentistry or dental hygiene. This obvious void in the literature served as a major stimulus for this research.

CHAPTER 3

METHODS AND MATERIALS

Sample Description

Boards regulating the practice of dental hygiene were the population under study. Three governing bodies were chosen randomly from jurisdictions in the United States without dental hygiene self-regulation; all three Canadian jurisdictions with dental hygiene self-regulation were used in the sample (Alberta, Ontario and Quebec). These Canadian provinces were chosen purposefully as they were the only jurisdictions within the United States and Canada that are truly self-regulated at the time of the study. The sample chosen to represent jurisdictions without dental hygiene self-regulation were the states of Maine, Wyoming and Georgia. These jurisdictions were chosen randomly from a list including the 50 states and the District of Columbia. The legal jurisdictions, and representation and voting power of the respective board members selected to participate in the survey, are reflected in Tables 4 and 5.

A total of 44 questionnaires were sent to the board members in the sample, 20 to the Canadian provinces and 24 to the United States. The overall response rate was 55%. Responses from dental hygienist controlled boards was 80%

Table 4

Boards Regulating the Practice of Dental hygiene Used in the Research Sample: Number of Board Members and Division of Representation Between Dentists, Dental Hygienists and Consumers.

LEGAL JURISDICTION	TOTAL # OF BOARD MEMBERS	# OF DENTIST BOARD MEMBERS	# OF HYGIENIST BOARD MEMBERS	# OF CONSUMER BOARD MEMBERS
GEORGIA	11	9	1	1
MAINE	8	6	1	1
WYOMING	6	5	1	0
ALBERTA*	10	(1 OBSERVING ONLY)	8 (AND 1 OBSERVING ONLY)	2
ONTARIO*	12	0	6	6
QUEBEC*	16	0	13	3

* Denotes jurisdictions with dental hygiene self-regulation

Table 5

Voting Power of Members of Boards Regulating the Practice of Dental Hygiene Used in the Research Sample.

LEGAL JURISDICTION	VOTING POWER OF THE DENTIST	VOTING POWER OF THE DENTAL HYGIENIST	VOTING POWER OF THE CONSUMER
GEORGIA	FULL	FULL	FULL
MAINE	FULL	FULL	FULL
WYOMING	FULL	RESTRICTED	--
ALBERTA*	NO	8 FULL 1 NO	FULL
ONTARIO*	--	FULL	FULL
QUEBEC*	--	FULL	FULL

* Denotes legal jurisdictions with dental hygiene self-regulation

--Denotes no Board membership this area

(16 questionnaires). Regulatory boards controlled by dentists accounted for a 33% response rate (8 questionnaires). The majority of the respondents (63%) were female; males made up 33% of the respondents. Dental hygienists accounted for 50% of the respondents, while dentists made up 25% percent, followed by consumer members at 21%. One respondent did not furnish information regarding gender or occupation.

Research Design

Figure 2 represents the research paradigm used to determine disciplinary sanctions exercised against dental hygiene practitioners and opinions of board members regulating the practice of dental hygiene. This design was chosen because the sample was distributed throughout the United States and Canada and because the sample groups already differed on the nonmanipulated independent variable under study--regulatory status. The major disadvantages of this design were that: the researcher was not present to answer questions, the questions may have been misinterpreted by the respondent and, the environment could not be controlled. To minimize these design limitations, a pilot study was conducted to identify and clarify misunderstood questions and a cover letter was enclosed explaining the questionnaire.

The results were analyzed, using the Kendall Tau b measure of association, and an attempt was made to determine if any differences existed between jurisdictions with dental

	Non-Manipulated Independent Variable	Dependant Variable
Group I: Members of Boards Regulating Dental Hygiene from Legal Jurisdictions **Without** Dental Hygiene Self-Regulation (Georgia, Maine and Wyoming)	Dental Controlled Regulatory Boards	Disciplinary Sanctions and Opinions
Group II: Members of Boards Regulating Dental Hygiene from Legal Jurisdictions **With** Dental Hygiene Self-Regulation (Alberta, Ontario and Quebec)	Dental Hygiene Controlled Boards	Disciplinary Sanctions and Opinions

Figure 2.

Research Design Paradigm. Ex Post Facto Design

hygiene self-regulation as compared to jurisdictions without dental hygiene self-regulation.

Methodology

A self-designed questionnaire was submitted to members of the dental hygiene faculty at Old Dominion University and a distinguished authority on self-regulation outside the university for critical review. Staff from the American Dental Hygienists' Association, Professional Development Division also were asked to evaluate the survey instrument. Comments received were used to revise the Mueller-Dental Hygiene Regulatory Questionnaire and establish its content validity. Basic changes made in the questionnaire as a result of the review included deletion of questions concerning licensure requirements, clarifying questions in the "Opinions" section and adding situations in the "Disciplinary Sanctions" section. After final revisions were made, the instrument was pilot tested on a randomly selected U.S. board of dentistry to establish clarity. The pilot sample consisted of regulatory board members from the state of Louisiana, a state in which dental hygiene is regulated by a board of dentistry. A jurisdiction with dental hygiene self-regulation could not be used in the pilot study, as all three of the possible provinces were used in the actual investigation.

The questionnaire packet was mailed to the participants in the pilot sample. Each packet contained:

1) a cover letter (See Appendix B)

2) the Mueller-Dental Hygiene Regulatory Questionnaire (See Appendix A)

3) a pre-addressed, postage paid return envelope

4) a pre-addressed, postage paid return postcard

Changes made in the questionnaire as a result of the pilot study included clarification in the directions, simplification in questionnaire language, modification of questionnaire layout and expansion in the "Disciplinary Sanctions" responses to include: reexamination, office inspection, cease and desist, probation with terms and conditions and a space for comments. An item also was added asking the respondent to identify the main source of dental hygiene complaints.

To insure anonymity of subjects in the actual study as well as the pilot study, the envelopes and questionnaires did not require respondent identification. The postcard provided was returned separately from the survey, enabling the researcher to identify non-respondents in an anonymous manner.

On July 15, 1993, final questionnaire packets were mailed to the dental regulatory board members in the states of Georgia, Maine and Wyoming and to the dental hygiene regulatory board members in the provinces of Alberta, Ontario and Quebec.

After eight weeks, nonrespondents were identified and mailed a second questionnaire packet. Initially, it was suspected that the low response rate coincided with the

summer season; however, the response rate from the second mailing was again unsatisfactory. At this point telephone calls were placed to nonrespondents from the second mailing who were asked if they would complete the questionnaire. Three respondents replied that they would not complete the survey. Of the participants who agreed to respond, none returned the questionnaires.

Protection of Human Subjects

1. Subject Population-The subjects were members of boards which regulate dental hygiene in legal jurisdictions from the United States and Canada. The states randomly chosen were: Georgia, Maine and Wyoming; the provinces were: Alberta, Ontario and Quebec. Therefore, the sample represented both dentist controlled regulatory boards and dental hygienist controlled regulatory boards.

2. Potential Risks-The research is descriptive in nature, therefore no potential risks to the participant existed. Each participant was asked to complete the questionnaire designed to measure disciplinary practices and opinions. A study of this type may create anxiety; therefore, all responses remained anonymous and confidential. Results are reported in group form only.

3. Consent-Participation in the study was voluntary. By completing and returning the questionnaire, respondents were giving their informed consent to participate.

4. Protection of Subjects Rights-All responses were kept confidential and anonymous. No attempt to identify participants from or within a particular jurisdiction were made except to classify them as members of boards with dental hygiene self-regulation or boards without dental hygiene self-regulation. Also, return postcards were utilized and returned separately from the actual survey to maintain anonymity of respondents. Furthermore, information was reported in group form only.

5. Benefits-No direct personal benefits were received by participants in this study. However, potential benefits to dental hygiene as a profession, such as documented literature on dental hygiene regulation resulted. Results of this study included some research data on the opinions regarding dental hygiene self-regulation.

6. Risk Benefit Ratio-The subjects risk were minor compared to the potential benefit this study had for the profession of dental hygiene.

Instrumentation

The Mueller- Dental Hygiene Regulatory Questionnaire, a self-designed instrument, was used to determine the disciplinary sanctions used by regulatory boards and the opinions of board members regarding the practice of dental hygiene. A mail questionnaire was the instrument of choice because the sample population was distributed throughout the

United States and Canada. The survey instrument was reviewed by a committee of dental hygiene experts as well as staff members from the American Dental Hygienists' Association Professional Development Division to establish it's content validity. A pilot test was conducted using members of the dental board in the state of Louisiana. A jurisdiction with dental hygiene self-regulation was not used in the pilot study, as all three provinces were used in the actual investigation.

The questionnaire was divided into three sections. The first section contained 22 questions which queried respondents about disciplinary sanctions exercised by the board against persons practicing dental hygiene. Each of the first 17 items presented situations of which a dental hygienist may be accused, for example, practicing without a license, performing duties not allowed under the practice act, obtaining or using controlled substances, practicing dental hygiene while ability of practitioner was impaired, harassing a patient, inadequate record keeping, substandard care and fraud. A list of 10 options were given, and the respondent was to circle the most likely disciplinary sanction administered within their particular jurisdiction. Possible responses included reprimand, remedial education, reexamination, office inspection, community service, monetary penalty, cease and desist, probation of license, suspension of license, revocation of license, other and not applicable. If a fine

was given, a space was provided for the respondent to specify the monetary amount. Space also was provided for comments from the respondent. Questions 18 and 19 asked the number of dental hygiene cases brought before the board during a specific time frame, and the number of these cases that actually received disciplinary sanctions. Question 20 asked the average amount of time it took the board to address a complaint. The last two questions dealt with the complaints most frequently filed against dental hygienists and the main source of these complaints.

In the second portion of the questionnaire, the participants were asked to express their attitudes toward 18 statements concerning dental hygiene self-regulation. These items were Likert in design, allowing respondents to express the following opinion levels: strongly agree, agree, no opinion, disagree and strongly disagree. The items addressed whether dental hygiene has the right to be self-regulated, whether dental hygiene is mature enough as a profession to be self-regulated, who benefits from self-regulation, quality standards under self-regulation, representation of dental hygienists on boards of dentistry and how self-regulation affects the monitoring of dental hygiene practice.

The third section addressed demographic information to facilitate the comparison between subgroups. In this section, seven of the questions asked simple information on gender, age, position on the board, type of board, number of dental

hygienists regulated, powers of the board and years of experience on the board. The other two questions, for dentist and dental hygienist board members only, were to collect data on their educational credentials and years of professional experience.

Statistical Treatment

The Kendall Tau b measure of association was the treatment chosen to analyze the results in the "Opinion" section of the questionnaire. Kendall Tau b requires no algebraic manipulations, only counts, and is preferred over the Spearman rho correlation procedure when there are numerous tied ranks. The Kendall Tau b procedure is restricted to data from two groups and yields a slightly lower correlation coefficient than would be obtained if a Spearman rho was used. Kendall Tau b is used for data which are at least ordinal scaled; the data obtained was nominal and ordinal. After consultation with a statistician, it was decided that the Kendall Tau b analysis was appropriate.

Each question in the "Opinion" section was analyzed to determine the degree of association between the type of regulatory board and the opinion of the board member. The data from the "Disciplinary Sanctions" section and the demographics section of the questionnaire were analyzed using frequency distributions. Only the eight questionnaires from dentist controlled boards were utilized when analyzing the

data in the disciplinary sanctions portion of the instrument.

CHAPTER 4

RESULTS AND DISCUSSION

A self-designed questionnaire was used to determine (1) the effect of self-regulation on disciplinary sanctions exercised by regulatory boards toward practitioners of dental hygiene, and (2) the opinions of members of dentist controlled boards as compared to dental hygienist controlled boards concerning the regulation of dental hygiene. Twenty-four questionnaires out of 44 were returned resulting in a 55% response rate. Sixteen of the questionnaires were returned from dental hygiene controlled boards (80%); eight questionnaires were returned from dentist controlled boards (33%) (See Table 6 and Figure 3).

Data from the "Opinions" section were analyzed using the Kendall Tau b measure of association. Data from the section titled "Disciplinary Sanctions" were analyzed using frequency distributions. Data from the "Demographics" section were analyzed using frequency distributions and percentages. Results are presented and discussed in relation to the research questions addressed in the section on statement of the problem.

Table 6

Response Rate of Members of Boards of Dentistry and Dental Hygiene to the Mueller-Dental Hygiene Regulatory Questionnaire.

	# SENT	# RETURNED	RESPONSE RATE
DENTAL HYGIENIST CONTROLLED BOARD	20	16	80%
DENTIST CONTROLLED BOARD	24	8	33%
TOTAL RESPONSE RATE	44	24	55%

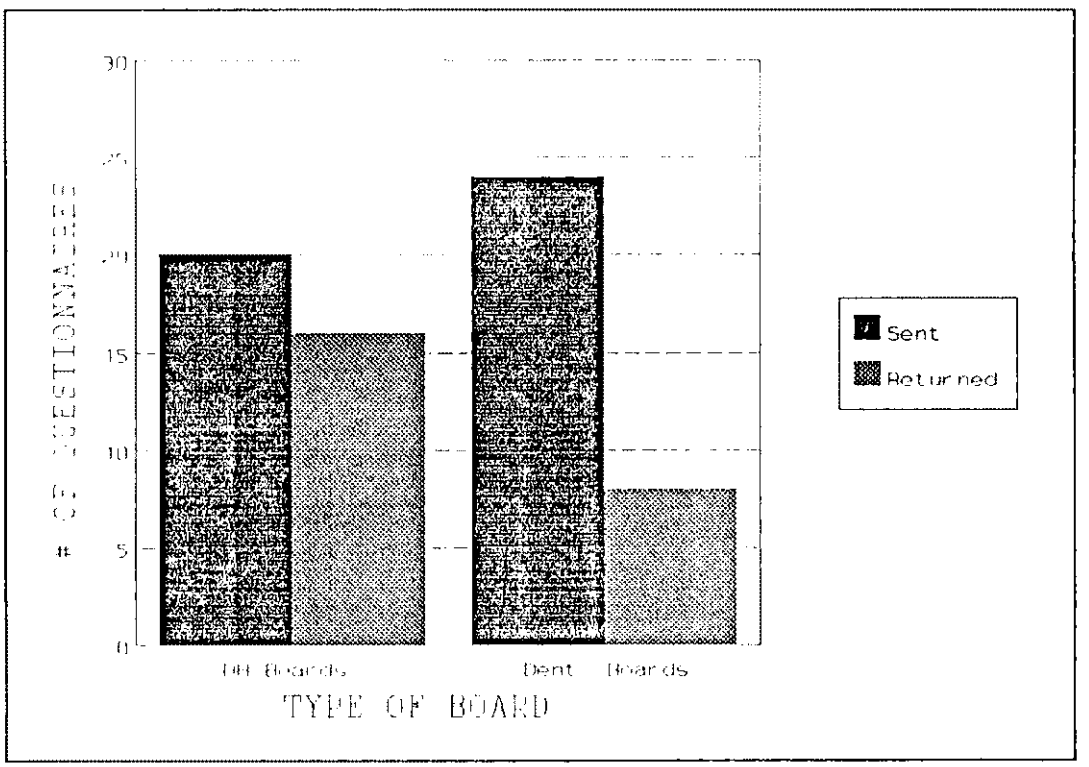


Figure 3

Response Rate of Members of Boards of Dentistry and Dental Hygiene to the Mueller-Dental Hygiene Regulatory Questionnaire.

Results

Demographics

Demographic data were obtained from the last portion of the questionnaire. The respondents were asked to indicate their gender, age, position on the board, educational credentials and years of experience in their current profession. All of the respondents completed the demographics section, with the exception of one.

Fifteen of the respondents were female (65%), with eight of the respondents being male (35%). Six of the respondents were dentists (26%), twelve of the respondents were dental hygienists (52%), and five respondents were public members (22%) (See Table 7 and Figure 4). Of the dental hygienists, all were female; all of the dentists were male. Two of the public members were male, while three were female (See Table 8 and Figure 5).

Item 2 asked respondents to indicate their age, from the following increments: 18-23, 24-29, 30-35, 36-41, 42-47, 48-53, 54-59, and 60+. Of the respondents, 43% (n=10) were between the ages of 42 and 47. This predominant range was followed by 17% (n=4) between the ages of 36-41. Thirteen percent (n=3) were between the ages of 30 and 35, and 13% (n=3) were age 60 and above. Nine percent of the respondents (n=2) were ages 48 to 53, and one respondent (4%) was between the age of 54 and 59 (See Table 9 and Figure 6).

Item 5 requested those respondents who were dental

Table 7

Professions of Board Members Who Responded to the Mueller-Dental Hygiene Regulatory Questionnaire.

	DENTIST		DENTAL HYGIENIST		OTHER	
	#	%	#	%	#	%
DENTAL HYGIENIST CONTROLLED BOARDS	0	0%	10	42%	5	21%
DENTIST CONTROLLED BOARDS	6	25%	2	8%	0	0%
*TOTAL	6	25%	12	50%	5	21%

*Total excludes one respondent who did not reply to demographic information.

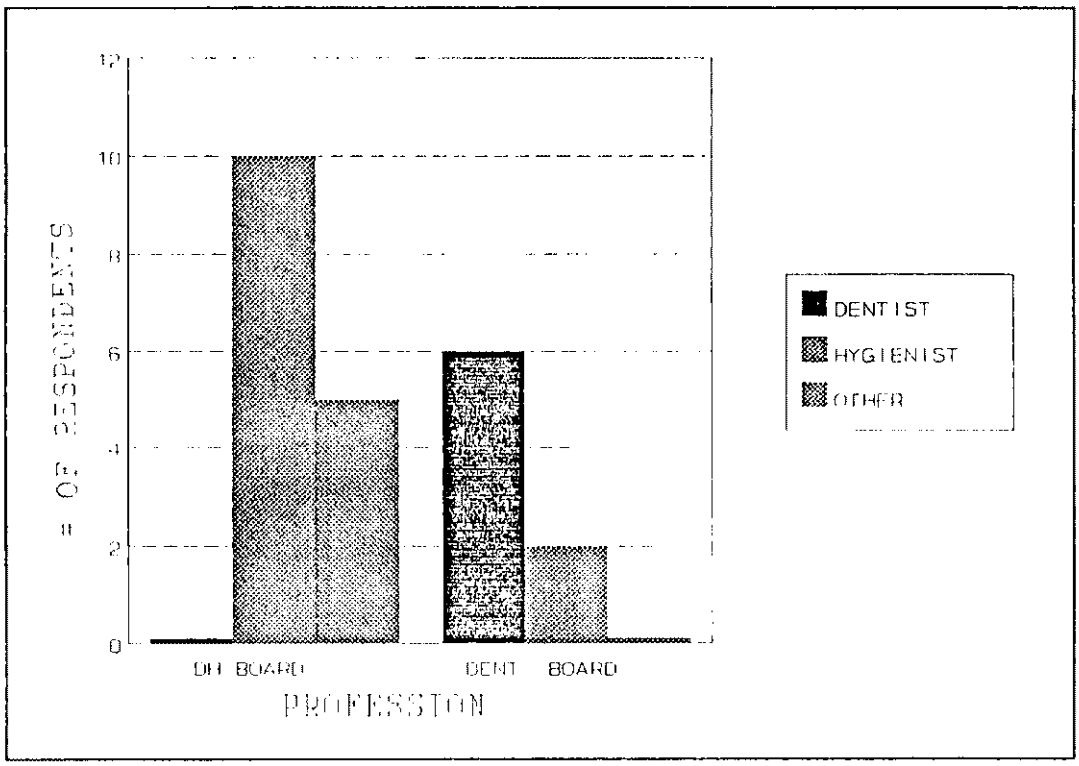


Figure 4

Professions of Board Members Who Responded to the Mueller-Dental Hygiene Regulatory Questionniare.

Table 8

Profession and Gender Characteristics of Respondents on the Mueller-Dental Hygiene Regulatory Questionnaire.

GENDER/ PROFESSION	MALE #	%	FEMALE #	%	TOTAL #	%
DENTAL HYGIENIST	0	0%	12	52%	12	52%
DENTIST	6	26%	0	0%	6	26%
OTHER	2	9%	3	13%	5	22%
*TOTAL	8	35%	15	65%	23	100%

*Total excludes one respondent who did not reply to demographic information.

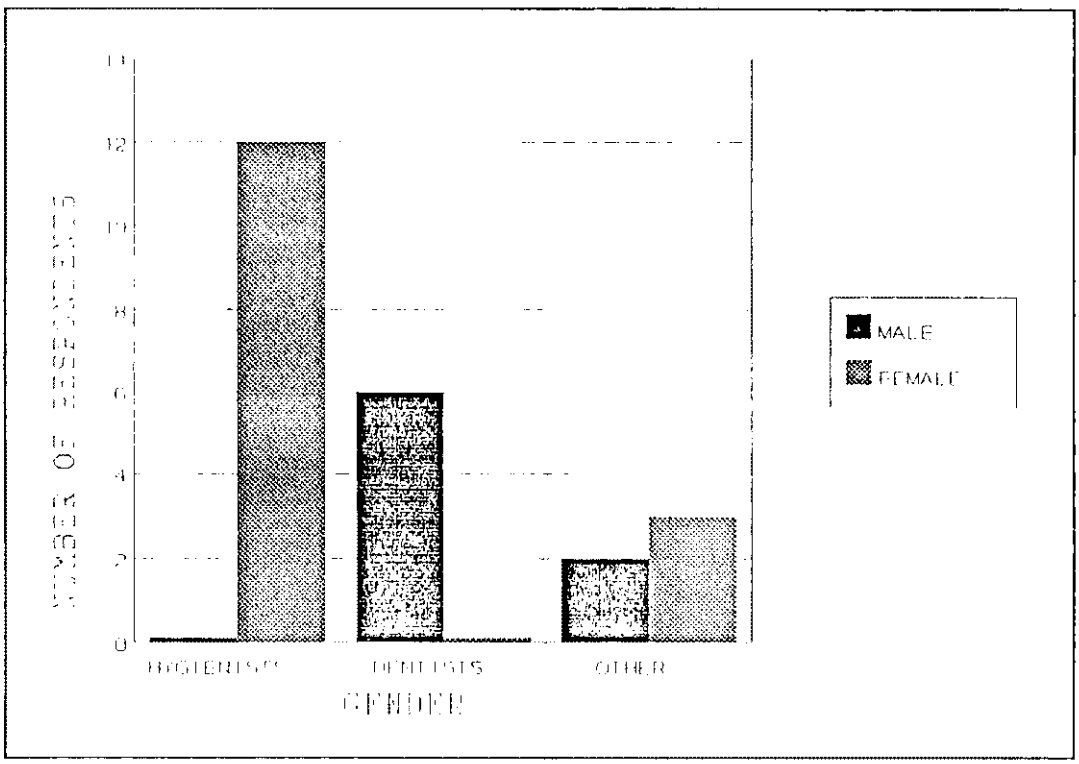


Figure 5

Profession and Gender Characteristics of Board Members Who Responded to the Mueller-Dental Hygiene Regulatory Questionnaire.

Table 9

Age of Respondents as Indicated on the Mueller-Dental Hygiene Regulatory Questionnaire.

AGE	NUMBER OF RESPONDENTS	PERCENT
18-23	0	0%
24-29	0	0%
30-35	3	13%
36-41	4	17%
42-47	10	43%
48-53	2	9%
54-59	1	4%
60+	3	13%
*TOTAL	23	100%

*Total excludes one respondent who did not reply to demographic information.

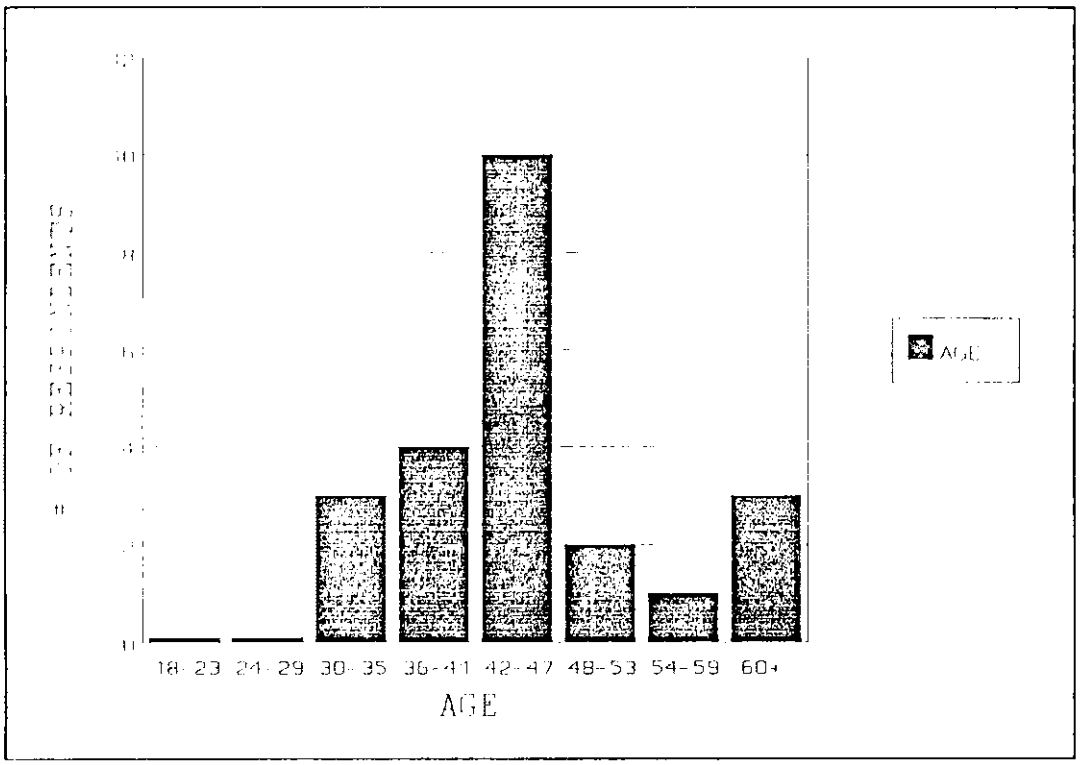


Figure 6

Age of Board Members Who Responded to the Mueller-Dental Hygiene Regulatory Questionnaire.

hygienists or dentists to indicate the number of years they have been in their current profession from the following increments: 0-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, and, 45 or more. Forty-two percent of the respondents (n=8) had been in their current profession for 15 to 19 years. This finding was followed by 32% (n=6) of the respondents being in their careers for 10 to 14 years. Twenty-one percent (n=4) answered that they had been in their profession for 20 to 24 years. Only one person (6%) had been in his or her profession for 25 to 29 years (See Table 10 and Figure 7).

Item 4 asked the dental hygienist and dentist respondents to indicate the highest educational credential they had earned. The selections included: diploma, certificate, associates degree, bachelors degree, masters degree, or doctoral degree. Thirty-two percent (n=6) of the respondents held doctoral degrees. Eleven percent (n=2) of the respondents held a masters degree. Twenty-six percent (n=5) held a bachelors degree, followed by, eleven percent (n=2) who held an associates degree, fifteen percent (n=3) held a diploma and five percent (n=1) held a certificate (See Table 11 and Figure 8).

Research Question One

Is there a difference in the disciplinary sanctions exercised against those practicing dental hygiene by regulating bodies in legal jurisdictions with dental hygiene

Table 10

Number of Years in the Current Profession as Indicated by Dental and Dental Hygiene Board Members Who Responded to the Mueller-Dental Hygiene Regulatory Questionnaire.

NUMBER OF YEARS IN PRACTICE	NUMBER OF RESPONDENTS	PERCENT
0-4	0	0%
5-9	0	0%
10-14	6	32%
15-19	8	42%
20-24	4	21%
25-29	1	5%
30-34	0	0%
35-39	0	0%
40-44	0	0%
45+	0	0%
*TOTAL	19	100%

*Total excludes consumer board members who were not asked to respond to this item.

Figure 7

Number of Years in the Current Profession as Indicated by Dental and Dental Hygiene Board Members Who Responded to the Mueller-Dental Hygiene Regulatory Questionnaire.

Table 11

Highest Educational Credential Earned by Dental and Dental Hygiene Respondents as Indicated on the Mueller-Dental Hygiene Regulatory Questionnaire.

LEVEL OF EDUCATION	NUMBER OF RESPONDENTS	PERCENT
DOCTORAL DEGREE	6	32%
MASTERS DEGREE	2	11%
BACHELORS DEGREE	5	26%
ASSOCIATES DEGREE	2	11%
DIPLOMA	3	15%
CERTIFICATE	1	5%
*TOTAL	19	100%

*Total excludes consumer board members who were not asked to respond to this item.

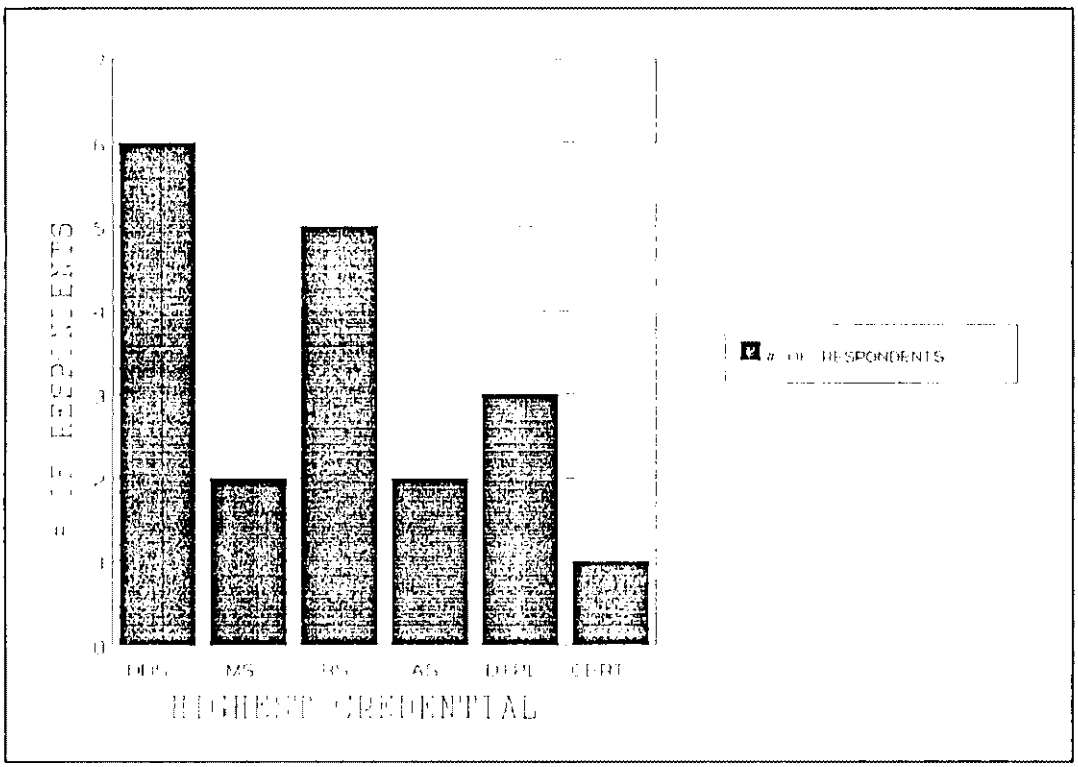


Figure 8

Highest Educational Credential Obtained by Dental and Dental Hygiene Board Members Who Responded to the Mueller-Dental Hygiene Regulatory Questionnaire.

self-regulation as compared to legal jurisdictions without dental hygiene self-regulation?

In the first section of the Mueller-Dental Hygiene Regulatory Questionnaire titled, "Disciplinary Sanctions," only nine respondents answered the questions. Eight of the respondents were from dentist controlled boards and one respondent was from a dental hygienist controlled board.

The respondent from the dental hygienist controlled board noted that the answers given were based purely on personal opinion, as the regulatory board was newly formed and had not yet exercised disciplinary sanctions at the time of the survey. Other comments received from respondents on dental hygienist controlled boards included: not having any dental hygiene complaints brought before the body since its formation, and the board not yet being trained in disciplinary hearings because it was just formed. Therefore, only the data obtained from the dentist controlled board were analyzed.

Respondents were asked to identify the disciplinary sanctions that were most likely to be administered in their particular jurisdiction in relation to the 17 situations that were given. The options listed included: reprimand, remedial or continuing education, reexamination, office inspection, community service, monetary penalty, cease and desist, probation with terms and conditions, suspension, revocation, other, and not applicable. More than one answer could have been provided (See Table 12). Moreover, it was requested that

Table 12

Disciplinary Sanctions Most Likely to be Administered for Various Offences as Reported by Members of Boards of Dentistry.

Sanction

Offence	Reprimand	Education	Assessment	Specific undertaking	Community service	$	Grade & defer	Probation	Suspension	Revocation	Other	N
Practising without a licence	1	-	-	-	-	4	6	1	1	1	-	-
Practising with an invalid licence	1	-	-	-	-	4	3	-	-	2	-	-
Practising while ability was professionally impaired	1	1	1	-	-	-	2	2	1	2	-	-
Practising while ability was impaired by alcohol or drugs	1	1	1	-	-	-	1	1	5	5	-	-
Possessing controlled substances through an unauthorized source	1	-	-	-	-	-	1	1	5	5	-	-
Self-administering narcotics to point of impairment	2	-	-	-	-	-	2	1	4	5	-	-
Failure to maintain adequate records	3	1	-	1	-	-	1	1	1	1	-	1
Performing duties not allowed by the practice act	3	1	1	-	-	1	4	2	4	3	-	1
Harassing a patient verbally	3	-	-	-	-	-	3	3	1	-	-	1
Harassing a patient physically	2	-	-	-	-	-	3	2	1	2	-	1

Table 12
Continued

Sanction

SITUATION	REPRIMAND	EDUCATION	REHABILITATION	OFFICE INSPECTION	COMMUNITY SERVICE	$	MONEY & FINE	PROBATION	SUSPENSION	REVOCATION	OTHER	N A
Failure to maintain med. rec. standard	1	4	-	-	-	-	2	-	-	-	-	3
Failure to comply with CPC guidelines	4	2	1	-	-	-	1	1	2	1	-	-
Failure to obtain genet. disease	1	3	-	-	-	-	1	1	-	-	-	3
Forgery of a prescription	1	-	-	-	-	-	1	1	3	5	-	1
Unprofessional conduct	3	-	-	-	-	-	1	1	4	2	1	-
Influence of medical treat.	1	-	1	-	-	1	1	1	3	4	-	1
Providing [illegible]	1	1	-	-	-	-	3	3	2	1	-	1

the amount of monetary fine be noted, and a section also was available to encourage comments.

The first two items addressed a dental hygienist practicing without a license. Six respondents answered that cease and desist would be the appropriate sanction. This response was followed by four respondents indicating that a monetary fine would be imposed, two respondents answering that a reprimand would be in order, and one response each for a reexamination, probation, suspension and revocation. Two monetary fines, both of $1000 were noted for the offense of practicing without a dental hygiene license. Also, it was mentioned in the comments section that the practitioner could receive up to two years in prison. Practicing with an expired license received five responses for cease and desist, four for monetary fine, two for revocation and one each for reprimand, reexamination, probation and suspension. One monetary fine of $1000 was noted.

Items 3 and 4 concerned the capability of the dental hygienist. Practicing or attempting to practice dental hygiene while ability was impaired by a mental or emotional disorder received three responses for license suspension, and two responses each for reexamination, cease and desist, probation, and revocation. One response was given for reprimand and remedial education. Practicing or attempting to practice dental hygiene while the practitioners ability was impaired by alcohol received five responses each for

suspension and revocation, three responses for cease and desist, and one each for reprimand, remedial education, reexamination and probation.

Items 5, 6 and 14 addressed the illegal use of controlled substances by dental hygienists. Situation five asked the board member to identify the disciplinary sanction that would be used against a dental hygienist for obtaining a controlled substance through the use of an unauthorized prescription. This item received six responses for license suspension, five responses for revocation of the dental hygiene license and one each for probation, cease and desist and reprimand.

For self-administering schedule II or III controlled substances, five respondents answered that the dental hygiene practitioner's license would be revoked; four indicated that suspension would be the dental hygienist's punishment. Reprimand and cease and desist was answered by two respondents, and one respondent answered that probation would be in order.

Situation 14 asked the disciplinary sanction for forgery of a prescription by a dental hygienist. Five respondents answered that the practitioner would have his or her license revoked. Three respondents stated that the practitioner would be reexamined and one respondent each answered that there could be a reprimand, probation or cease and desist.

Item 7 queried board members about the penalty for a dental hygienist for failing to maintain adequate records.

Reprimand received three responses. Probation and suspension each received two responses, followed by remedial education, office inspection, cease and desist, and revocation of the dental hygiene license each receiving one response.

If a practitioner was found to be practicing duties not allowed in the practice act, cease and desist, and suspension were both recommended penalties by four respondents. Revocation received three responses, followed by reprimand and probation with two, and remedial education, reexamination and monetary penalty with one each. No monetary fine was suggested by any of the board members who responded.

Situations 9 and 10 asked board members to indicate the likely penalty against a dental hygienist for abusing a patient. For harassing or abusing a patient verbally, three board members chose a reprimand, cease and desist, and probation. Suspension of the dental hygiene license received one vote. For harassing or abusing a patient physically, three board members suggested the penalty cease and desist, two each suggested reprimand, probation and revocation. Suspension of the dental hygiene license received one vote from a board member.

Situations 11, 12, 13 and 17 queried respondents on the penalty they would most likely exercise against a dental hygienist for failing to provide adequate dental hygiene care. Failing to recognize the need for treatment received four responses in favor of a remedial or continuing education

penalty, two responses for cease and desist, and one response for reprimand. Three board members who responded stated that this situation was not applicable because recognizing the need for treatment was the responsibility of the dentist. Failing to comply with Center for Disease Control guidelines received four responses for reprimand, three responses for cease and desist, two responses each for remedial education and suspension. Reexamination, probation and revocation received one response each. Failure to detect periodontal disease received three responses for remedial education, and one response each for reprimand, cease and desist, and probation. Three respondents answered that this was not applicable, again stating that this was the responsibility of the dentist not the dental hygienist. Providing substandard dental hygiene care received three responses each for cease and desist, and probation. Two responses were received for remedial education and suspension. Reprimand and revocation received one response each. Two respondents answered that this situation was not applicable; however, no comment on the rationale were given.

Unprofessional conduct was reflected in situation 15. Four respondents answered that suspension would be the disciplinary sanction. Reprimand received three responses; probation and revocation received two responses, while cease and desist received one response.

The likely penalty against a dental hygienist for

insurance and medical fraud was addressed in situation 16. Four board members who responded indicated that the dental hygiene practitioner's license would be revoked; three answered that there would be a suspension of the dental hygiene license. Reprimand, reexamination, monetary penalty, cease and desist, and probation each received one response. The monetary fine noted was $1000, with an additional board member commenting that there could be a two year prison sentence. Two respondents stated that this situation was not applicable to dental hygienists, with no comment or explanation.

Item 18 asked the respondent to report on the number of dental hygienists brought before the board and as well as the number who received disciplinary sanctions in the years 1991 and 1992. Of the five board members who answered the question, four respondents stated that there were zero complaints brought before the board concerning dental hygiene practitioners, and thus, zero received disciplinary sanctions. One respondent replied that there were two dental hygienists in 1992, and three dental hygienists in 1991 which were brought before the board. Moreover, all five dental hygienists received disciplinary sanctions.

The final item in the "Disciplinary Sanctions," section asked board members to identify the main sources of complaints against dental hygienists. Board members could choose one or more from the following categories: patients, dental

hygienists, dentists or "other." Patients received five responses, dental hygienists and dentists received four responses, and the "other" category received two responses. As noted on one of the questionnaires, "other" referred to dental assistants.

Research Question Two

Is there a difference in the opinions of board members regarding the value of self-regulation by members of boards in jurisdictions with dental hygiene self-regulation as compared to jurisdictions without dental hygiene self-regulation?

Twenty-four respondents from the states of Georgia, Maine and Wyoming and the provinces of Alberta, Ontario and Quebec, completed the "opinions" section of the questionnaire, which were analyzed using the Kendall Tau b measure of association. The measure of association calculates a number between 1 and -1. The closer the number is to 1 or -1 the stronger the association between the following two factors: a) the type of board the respondent is a member of, for example, a dental or dental hygiene board, and b) the way he or she responded, for example, strongly agree to strongly disagree. The closer the calculated number is to zero, the weaker the association between the type of board the respondent is a member of, and the way he or she responded. A calculated number of zero indicates no association between these two factors.

In this section, 18 statements on dental hygiene

regulation were given in order to elicit the opinions of members from dentist and dental hygienist controlled boards regarding self-regulation for dental hygienists. The respondents were asked to reflect their opinion about each statement in terms of: strongly agree, agree, no opinion, disagree or strongly disagree.

Items 1, 9, 10 and 17, addressed the right of dental hygiene to be self-regulated. Specifically, item 1 stated, "It is the right of the dental hygiene profession to be self-regulated." For this statement, the relationship between type of board membership and type of response had a 0.872 measure of association. Five members of dentist controlled boards answered strongly disagree, two disagreed and one agreed. One member of the dental hygiene controlled board disagreed, and fifteen strongly agreed (See Table 13 and Figure 9). Therefore, ones opinion on the right of the dental hygiene profession to be self-regulated is strongly associated with the type of board membership.

Item number 9 stated that dental hygiene should have autonomy from dentistry in terms of the regulatory process. Analysis of data from this statement resulted in a 0.744 measure of association between type of board member and type of response. Six respondents on dentist controlled boards answered strongly disagree and one agreed to the statement. Individuals on dental hygienists controlled boards answered no opinion 1 time, agree 5 times and strongly agree 10

Table 13

Frequency of Responses to Item 1 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 1 statement, "It is the right of the dental hygiene profession to be self-regulated."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	5	2	0	1	0	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	0	1	0	0	15	16 67%
TOTAL #	5	3	0	1	15	24
%	21%	12%	0%	4%	63%	100%

Kendall Tau b = 0.872

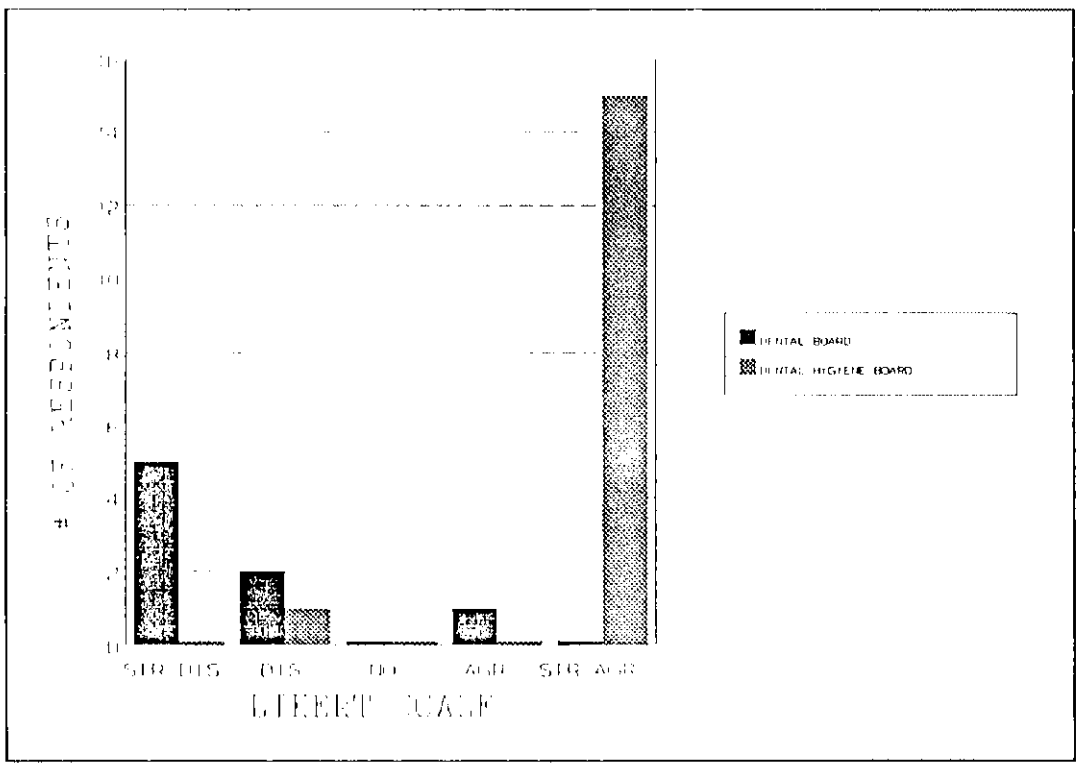


Figure 9

Frequency of Responses to Item 1 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

times (See Table 14 and Figure 10). Therefore, one's opinion about whether dental hygiene should have regulatory autonomy from dentistry is strongly associated to board membership.

Item 10 stated that dental hygienists should have the authority for promulgating rules and regulations regarding the practice of dental hygiene. Analysis of responses to this question had a 0.661 measure of association between the type of board membership and type of response. Three dental board members strongly disagreed, two disagreed, two agreed and one strongly agreed. Four of the dental hygiene board members agreed and 12 strongly agreed that dental hygienists should have the authority for promulgating rules and regulations for dental hygiene practitioners (Table 15 and Figure 11). Therefore, ones opinion about whether dental hygienists should have authority for promulgating rules and regulations regarding the practice of dental hygiene is moderately associated with the type of board membership.

Finally, item 17 stated that there is an infringement of civil rights when dental hygienists are regulated without representation. Responses to this statement had a 0.586 measure of association with the type of board membership of the respondent. One dental board member strongly disagreed with the statement, one disagreed, one had no opinion, four agreed and 1 strongly agreed. Two of the dental hygiene board members had no opinion, one agreed and thirteen strongly agreed (See Table 16 and Figure 12). Therefore, one's opinion

Table 14

Frequency of Responses to Item 9 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 9 statement, "Dental hygiene should have autonomy from dentistry in terms of the regulatory process."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	6	0	0	1	0	7 30%
DENTAL HYGIENIST CONTROLLED BOARD	0	0	1	5	10	16 70%
TOTAL # %	6 26%	0 0%	1 4%	6 26%	10 43%	23* 100%

*Total reflects one respondent who did not respond to the statement

Kendall Tau b = 0.744

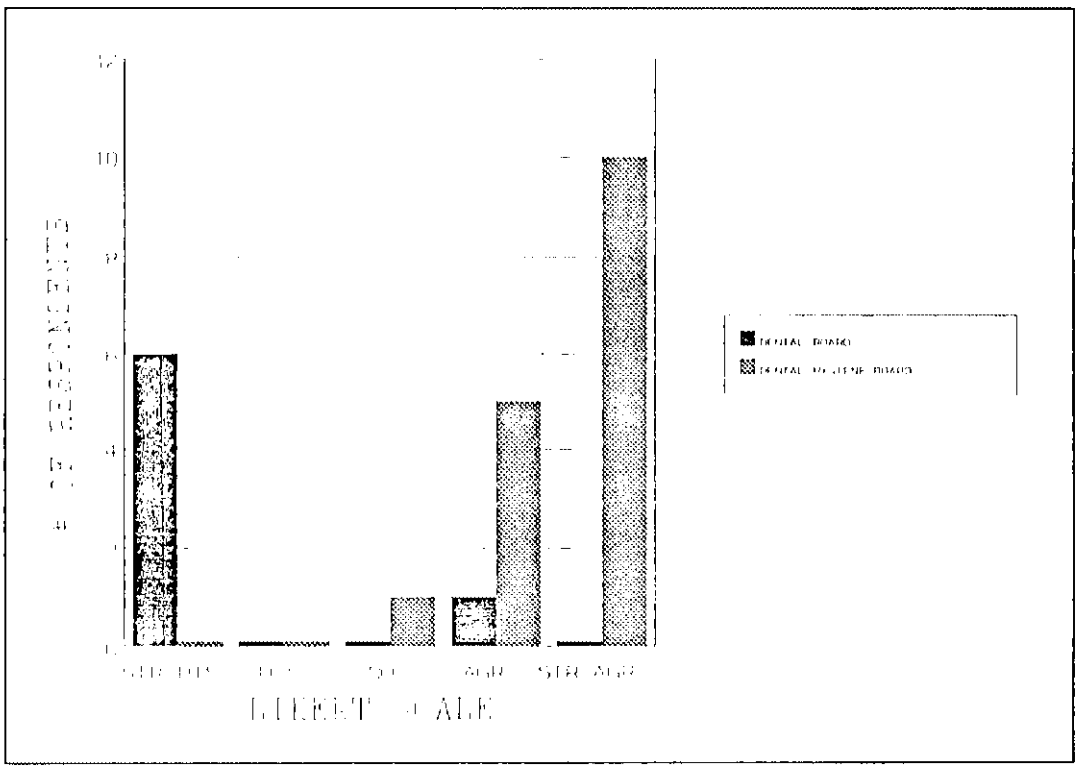


Figure 10

Frequency of Responses to Item 9 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Table 15

Frequency of Responses to Item 10 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 10 statement, "Dental hygienists should have authority for promulgating rules and regulations regarding the practice of dental hygiene."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	3	2	0	2	1	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	0	0	0	4	12	16 67%
TOTAL # %	3 13%	2 8%	0 0%	6 25%	13 54%	24 100%

Kendall Tau b = 0.661

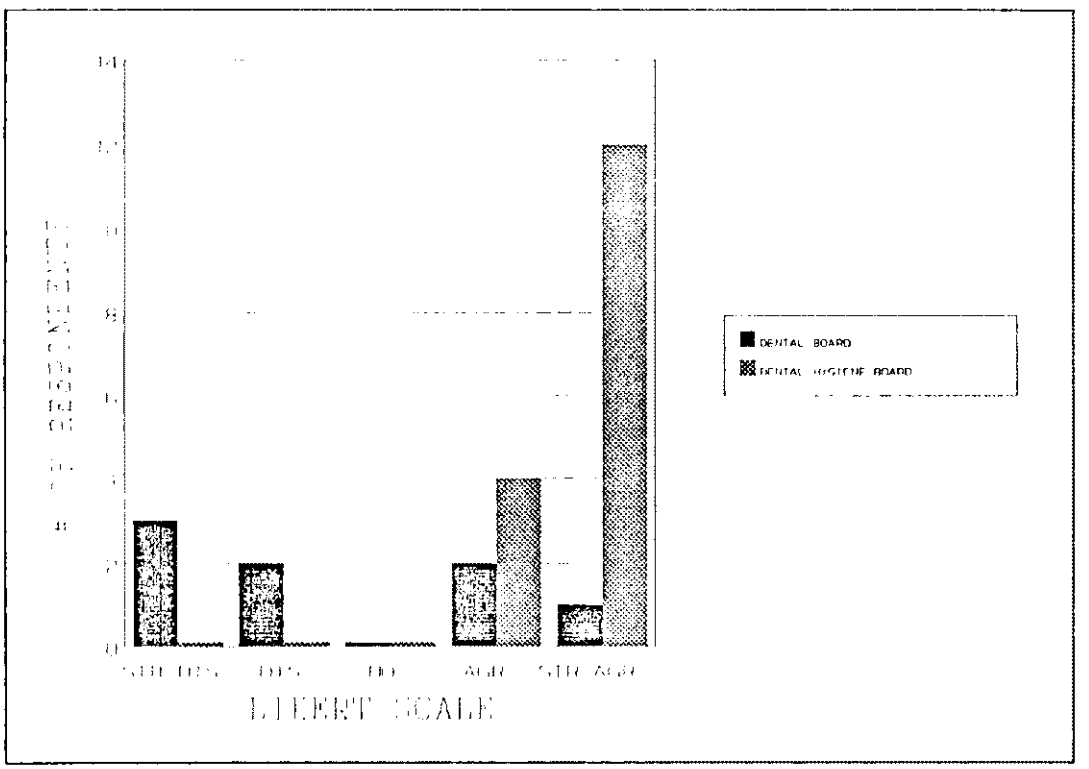


Figure 11

Frequency of Responses to Item 10 by Dental and Dental Hygiene Respondents in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Table 16

Frequency of Responses to Item 17 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 17 statement, "There is an infringement of civil rights when dental hygienists are regulated without representation."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	1	1	1	4	1	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	0	0	2	1	13	16 67%
TOTAL # %	1 4%	1 4%	3 13%	5 21%	14 59%	24 100%

Kendall Tau b = 0.586

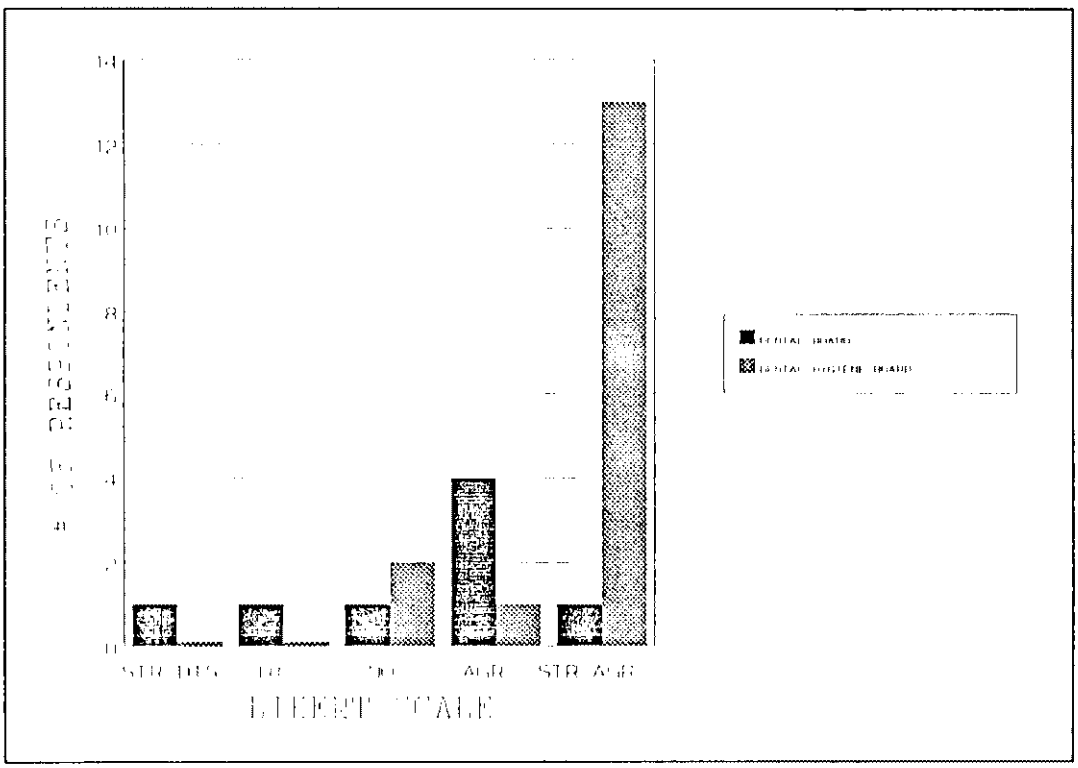


Figure 12

Frequency of Responses to Item 17 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

about whether it is an infringement of civil rights when dental hygienists are regulated without representation is moderately associated with board membership.

Items 2-7, 11, 13 and 18 reflected general statements about the self-regulation of dental hygiene. Item 2 stated that self-regulation of dental hygiene would benefit dental hygiene as a profession. Responses to this statement had an association of 0.847 with the type of board membership of the respondent. Four of the dentist controlled board members strongly disagreed with the statement, three disagreed and one agreed with the statement. Two of the dental hygienist controlled board members agreed and fourteen strongly agreed (See Table 17 and Figure 13). Therefore, one's opinion about whether self-regulation of dental hygiene would benefit dental hygiene as a profession is strongly associated with the type of board membership.

Item 3 declared that self-regulation of dental hygiene would benefit the public. This item had a 0.885 association between the type of response and type of board membership of the respondent, with four of the dental board members answering strongly disagree, three answering disagree and one agreeing with the statement. One dental hygiene board member agreed and 15 strongly agreed with the statement (See Table 18 and Figure 14). Therefore, one's opinion about whether self-regulation would benefit the public had a strong association

Table 17

Frequency of Responses to Item 2 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 2 statement, "Self-regulation of dental hygiene would benefit dental hygiene as a profession."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	4	3	0	1	0	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	0	0	0	2	14	16 67%
TOTAL #	4	3	0	3	14	24
%	17%	12.5%	0%	12.5%	59%	100%

Kendall Tau b = 0.847

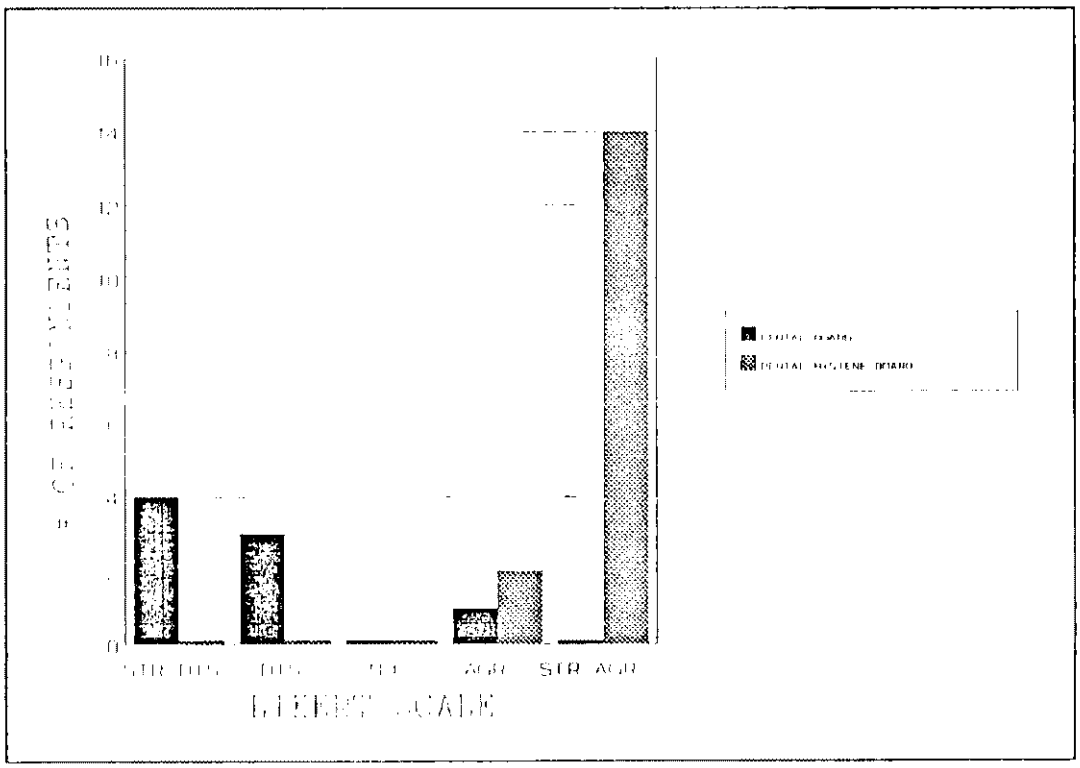


Figure 13

Frequency of Responses to Item 2 by Dental and Dental Hygiene Respondents in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Table 18

Frequency of Responses to Item 3 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 3 statement, "Self-regulation of dental hygiene would benefit the public."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	4	3	0	1	0	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	0	0	0	1	15	16 67%
TOTAL #	4	3	0	2	15	24
%	17%	12%	0%	8%	63%	100%

Kendall Tau b = 0.885

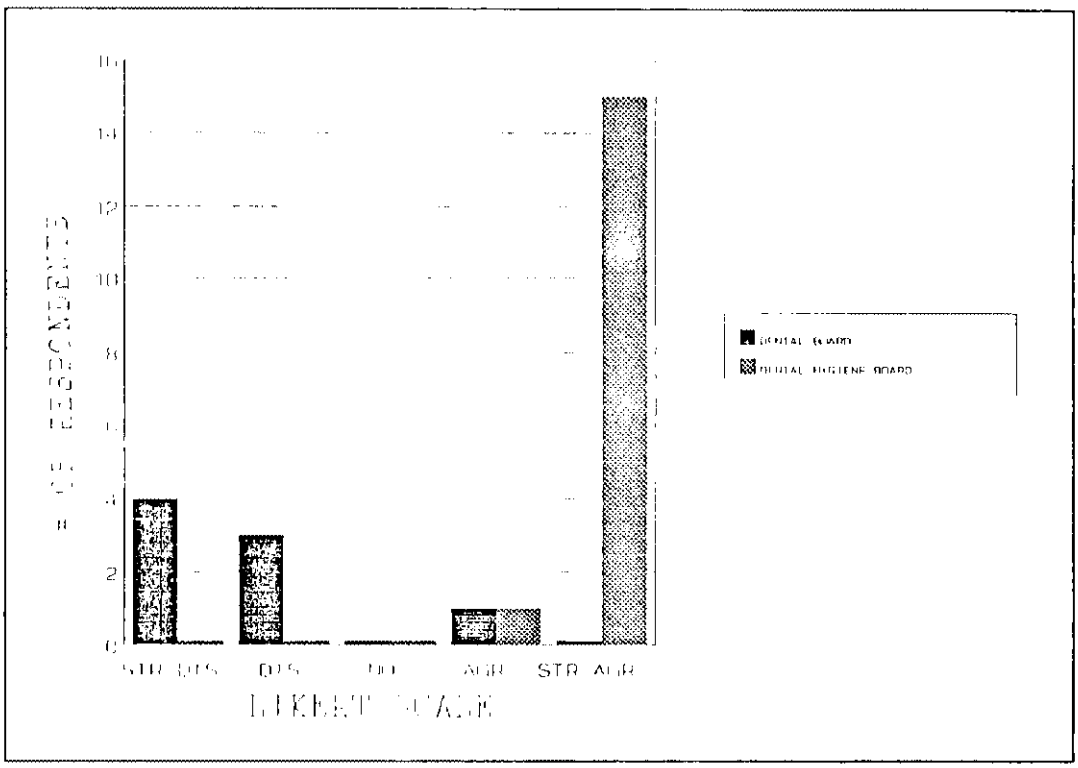


Figure 14

Frequency of Responses to Item 3 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

with the type of board membership.

The statement, "A profession that regulates itself, disciplines it's members more strictly than if another profession were to regulate it," had an association of 0.325 between type of response and type of board membership of the respondent. Two of the dentist controlled board members strongly disagreed with the statement, one disagreed and five agreed. One of the dental hygiene controlled board members strongly disagreed, two disagreed, one had no opinion, six agreed and six strongly agreed (See Table 19 and Figure 15). Therefore, ones opinion about whether a profession that regulates itself disciplines its members more strictly, has a low association between the response and the type of board membership.

When responding to the statement, "Standards are higher when one is setting them for one's self," the association was 0.467 with the type of board membership of the respondent. Two dental board members strongly disagreed, one disagreed, two had no opinion, and three agreed. One dental hygiene board member strongly disagreed, one disagreed, one had no opinion, six agreed and seven strongly agreed (Table 20 and Figure 16). Therefore, one's opinion about whether standards are higher when one is setting them for themselves is moderately associated with type of board membership.

Item 6 stated that, "Peer review results in higher standards than review by another profession." The association

Table 19

Frequency of Responses to Item 4 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 4 statement, "A profession that regulates itself disciplines its members more strictly than if another profession were to regulate it."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	2	1	0	5	0	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	1	2	1	6	6	16 67%
TOTAL #	3	3	1	11	6	24
%	12%	12%	4%	46%	25%	100%

Kendall Tau b = 0.325

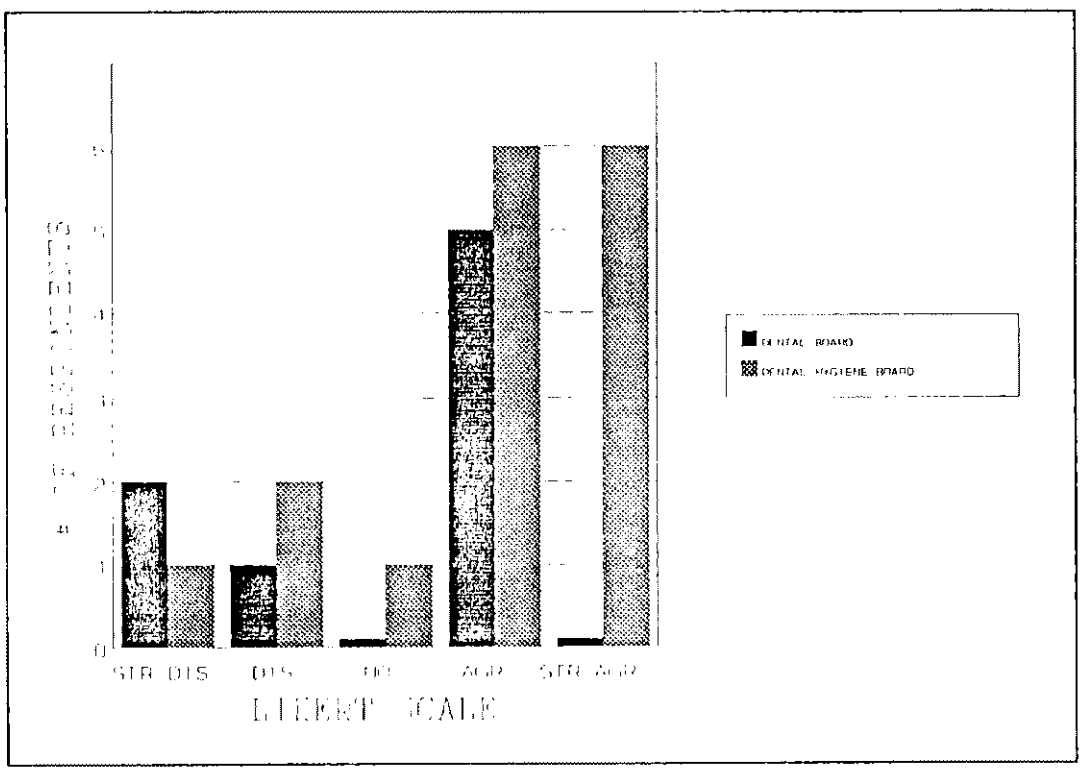


Figure 15

Frequency of Responses to Item 4 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Questionnaire.

Table 20

Frequency of Responses to Item 5 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 5 statement, "Standards are usually higher when one is setting them for one's self."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	2	1	2	3	0	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	1	1	1	6	7	16 67%
TOTAL # %	3 12.5%	2 8%	3 12.5%	9 38%	7 29%	24 100%

Kendall Tau b = 0.467

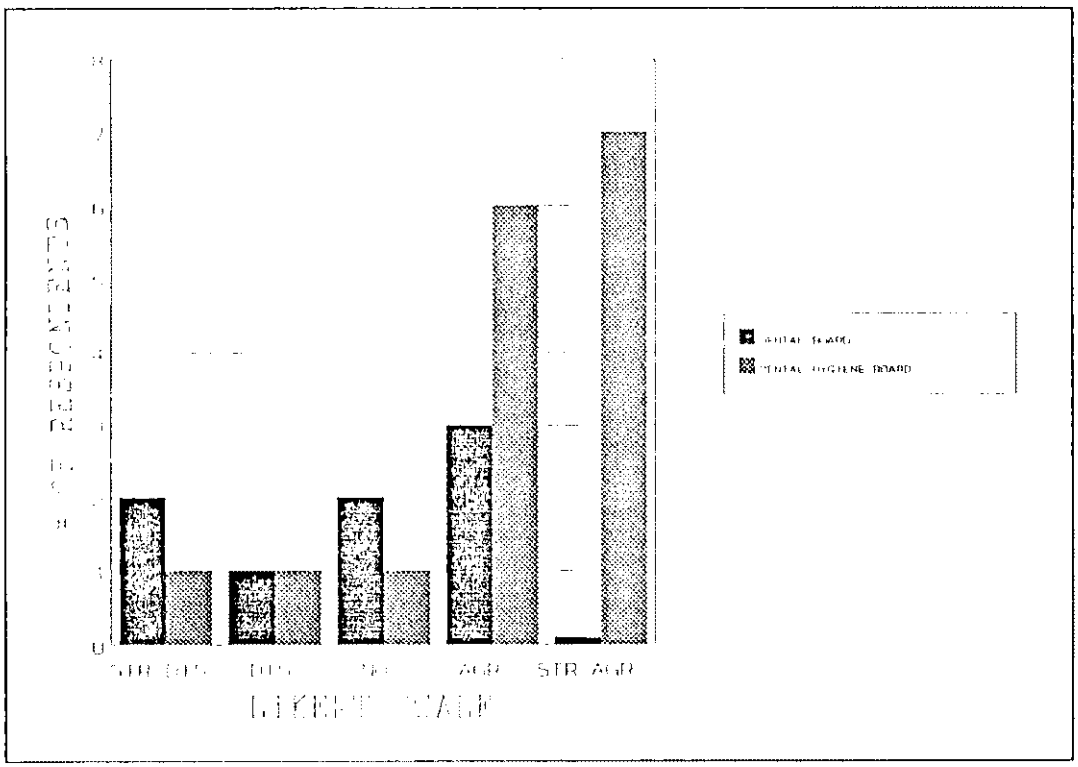


Figure 16

Frequency of Responses to Item 5 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

here between the response and the type of board membership of the respondent was 0.399. One dental board member strongly disagreed, two disagreed, two had no opinion, two agreed and one strongly agreed. One dental hygiene board member strongly disagreed, one disagreed, one had no opinion, four agreed and eight strongly agreed (See Table 21 and Figure 17). Therefore one's opinion whether peer review results in higher standards than review by another profession, has a low association between response and type of board membership.

Item 7 stated that self-regulation would lead to independent dental hygiene practice. Response data to this statement had an association of -0.147 with the type of board membership. The dental board members responded with one strongly disagreeing, one disagreeing, two with no opinion, two agreeing, and two strongly agreeing. The dental hygiene board members responded with two strongly disagreeing, five disagreeing, three with no opinion, four agreeing and two strongly agreeing (See Table 22 and Figure 18). Therefore, a low association existed between response and type of board membership on opinions regarding whether self-regulation would lead to independent practice.

For the statement, "Dental hygienists are not trained or educated to regulate themselves," analysis revealed a -0.246 association between type of response and type of board membership of the respondent. Three dental board members strongly disagreed with this statement, two disagreed and

Table 21

Frequency of Responses to Item 6 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 6 statement, "Peer review results in higher standards than review by another profession."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	1	2	2	2	1	8 35%
DENTAL HYGIENIST CONTROLLED BOARD	1	1	1	4	8	15 65%
TOTAL #	2	3	3	6	9	23*
%	8%	13%	13%	26%	39%	100%

* Total reflects one respondent who did not respond to the statement.

Kendall Tau b = 0.399

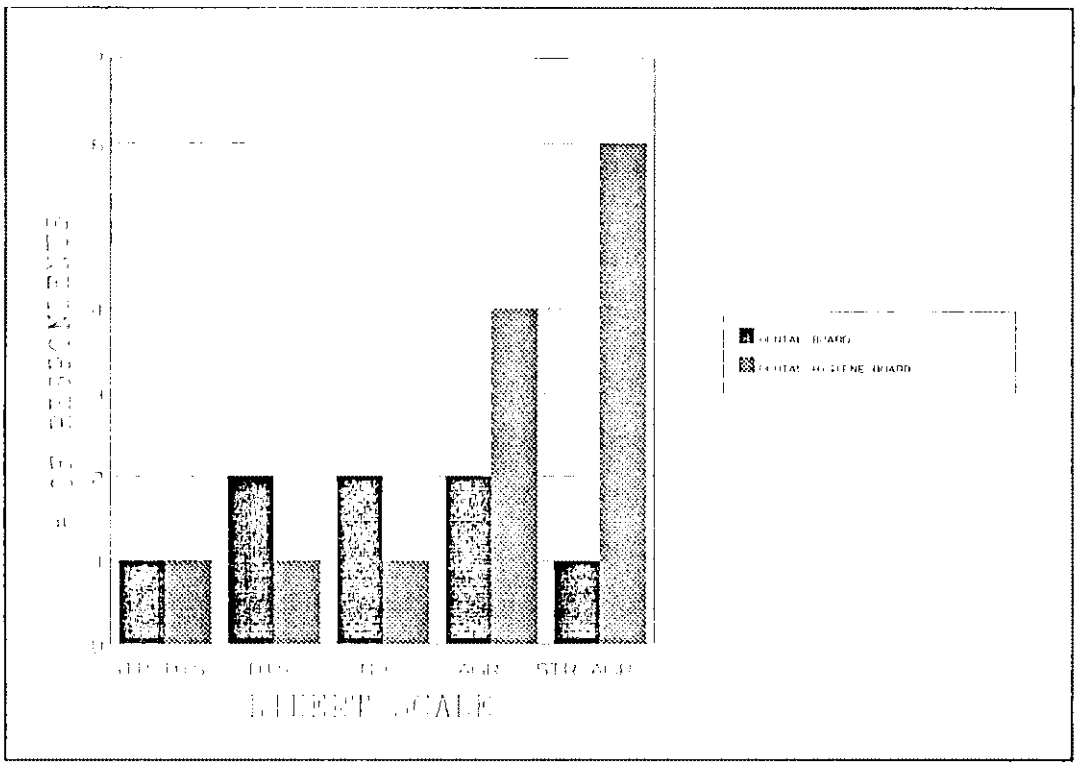


Figure 17

Frequency of Responses to Item 6 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Table 22

Frequency of Responses to Item 7 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 7 statement, "Self-regulation would lead to independent dental hygiene practice."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	1	1	2	2	2	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	2	5	3	4	2	16 67%
TOTAL #	3	6	5	6	4	24
%	13%	25%	21%	25%	17%	100%

Kendall Tau b = -0.147

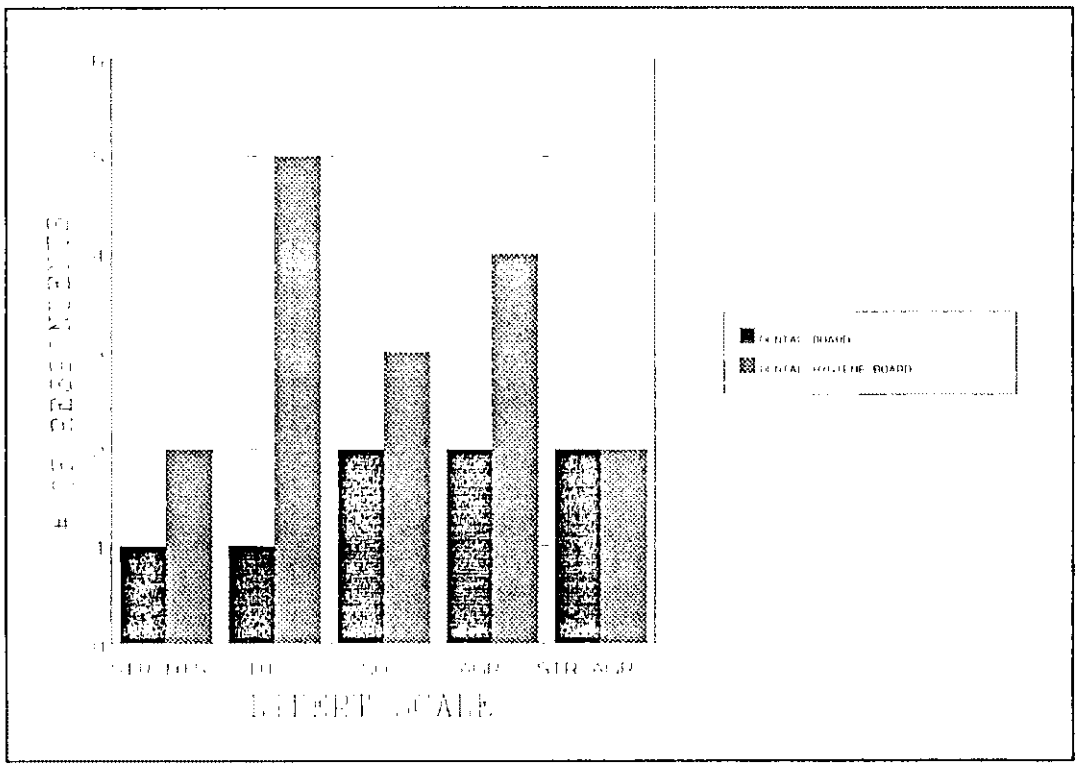


Figure 18

Frequency of Responses to Item 7 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

three agreed with the statement. Ten of the dental hygiene board members strongly disagreed with this statement, four disagreed, one agreed and one strongly agreed (See Table 23 and Figure 19). Therefore, one's opinion about whether dental hygienists are trained enough to regulate themselves had a low association between response and type of board membership.

Statement 13 solicited board members' opinions on whether self-regulation would break up the dental team. Response data to this item had an association of -0.659 with type of board membership of the respondent. One dental board member strongly disagreed, two disagreed with the statement, one agreed and four strongly agreed. Of the dental hygiene board members, eleven strongly disagreed, and four disagreed (See Table 24 and Figure 20). Therefore, one's opinion about whether self-regulation would break up the dental team is moderately associated with type of board membership.

The last general statement on self-regulation was item 18 which stated that, "Self-regulation will create a licensure examination process which is conducted by a majority of dental hygiene expert practitioners." The measure of association was 0.521 between type of response and type of board membership of the respondent. One of the dental board members strongly disagreed, two had no opinion, and five agreed. One dental hygiene board member had no opinion, seven agreed and eight strongly agreed (See Table 25 and Figure 21). Therefore, one's opinion about whether self-regulation would create a

Table 23

Frequency of Responses to Item 11 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 11 statement, "Dental hygienists are not trained or educated to regulate themselves."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL #	%
DENTIST CONTROLLED BOARD	3	2	0	3	0	8	33%
DENTAL HYGIENIST CONTROLLED BOARD	10	4	0	1	1	16	67%
TOTAL #	13	6	0	4	1	24	
%	54%	25%	0%	17%	4%		100%

Kendall Tau b = -0.246

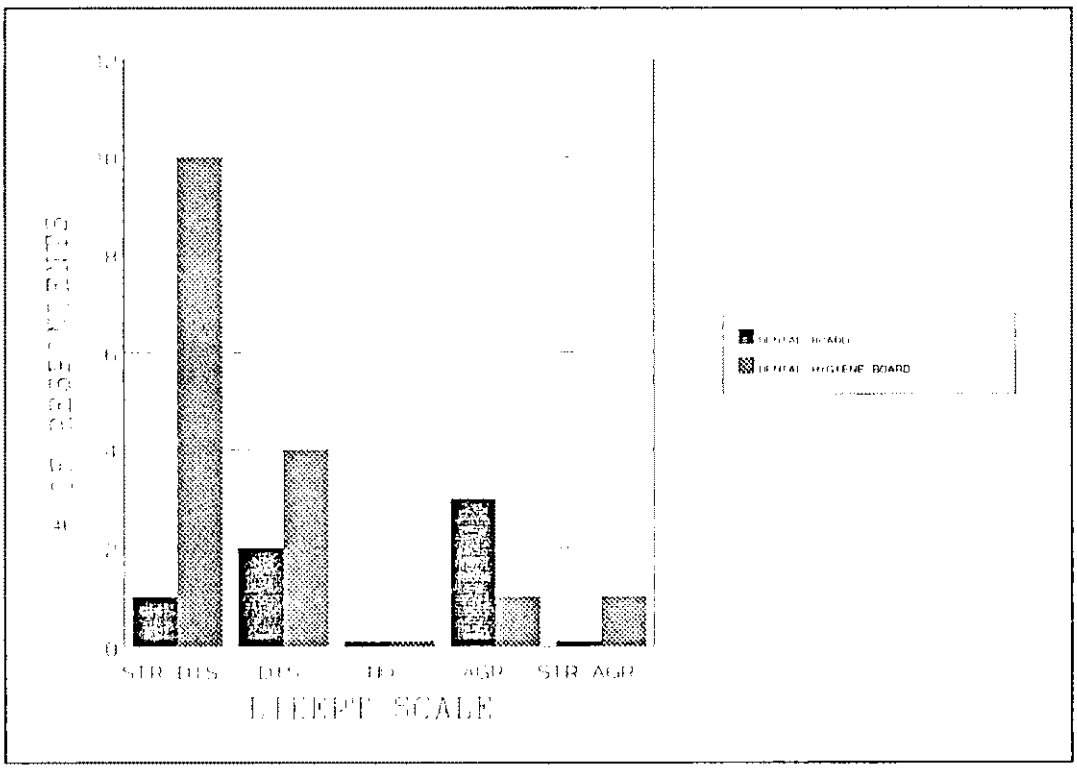


Figure 19

Frequency of Responses to Item 11 by Dental and Dental Hygiene Respondents in the Opinions Section on the Mueller-Dental Hygiene Questionnaire.

Table 24

Frequency of Responses to Item 13 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 13 statement, "Self-regulation by dental hygienists will break up the dental team."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	1	2	0	1	4	8 35%
DENTAL HYGIENIST CONTROLLED BOARD	11	4	0	0	0	15 65%
TOTAL #	12	4	0	1	4	23
%	52%	26%	0%	4%	17%	100%

* Total reflects one respondent who did not respond to the statement

Kendall Tau b = -0.659

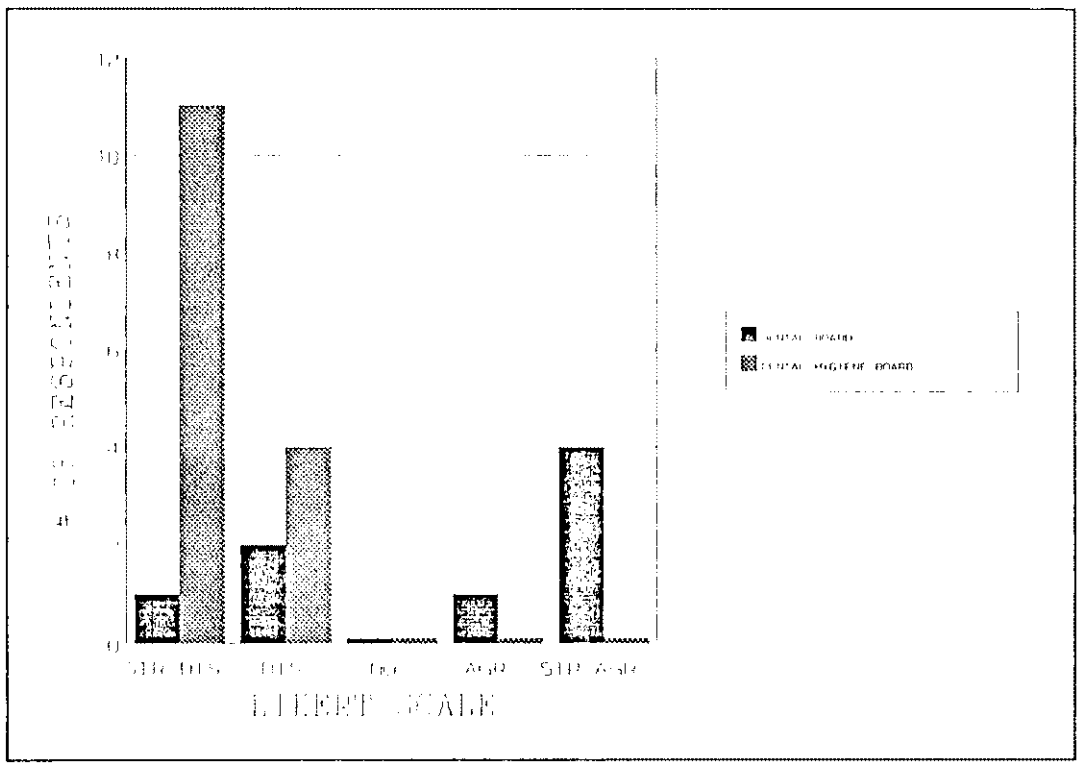


Figure 20

Frequency of Responses to Item 13 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Table 25

Frequency of Responses to Item 18 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 18 statement, "Self-regulation will create a licensure examination process which is conducted by a majority of dental hygiene (expert) practitioners."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	1	0	2	5	0	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	0	0	1	7	8	16 67%
TOTAL #	1	0	3	12	8	24
%	4%	0%	9%	50%	33%	100%

Kendall Tau b = 0.521

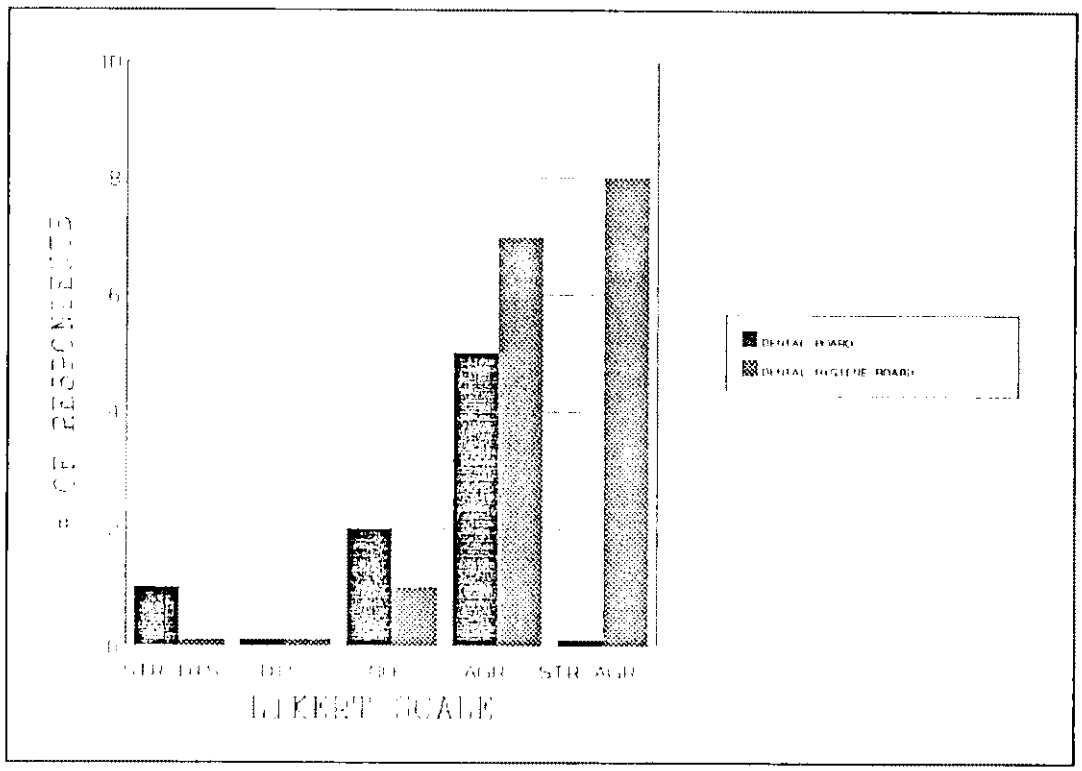


Figure 21

Frequency of Responses to Item 18 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Questionnaire.

licensure examination process which would be conducted by a majority of dental hygiene expert practitioners is moderately associated with type of board membership.

Items 8, 12, 14, 15 and 16 gave statements to elicit opinions concerning the various aspects of the board itself. Item 8 stated that dental hygienists have equal representation on their respective regulating body. The measure of association was 0.545 between the type of response and the type of board membership of the respondent. Two dental board members strongly disagreed with the statement, two disagreed, two had no opinion, one agreed and one strongly agreed. Two of the dental hygiene board members disagreed, one had no opinion, two agreed and nine strongly agreed that dental hygienists have equal representation on their respective regulatory boards (See Table 26 and Figure 22). Therefore, one's opinion about whether dental hygienists have an equal representation on their respective regulating body had a moderate association with type of board membership.

The statement in item 12 asserted that when dental hygienists have separate regulatory boards, each board can more accurately monitor itself. This statement had a 0.719 measure of association between the type of response and the type of board membership of the respondent. Five members from the dentist controlled board strongly disagreed, two disagreed and one agreed. One member of a dental hygienist controlled board disagreed, seven agreed and eight strongly agreed

Table 26

Frequency of Responses to Item 8 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 8 statement, "Dental hygienists have equal representation on their respective regulating body."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	2	2	2	1	1	8 36%
DENTAL HYGIENIST CONTROLLED BOARD	0	2	1	2	9	14 64%
TOTAL # %	2 9%	4 18%	3 14%	3 14%	10 45%	22* 100%

*Total reflects two respondents who did not respond to the statement

Kendall Tau b = 0.0.545

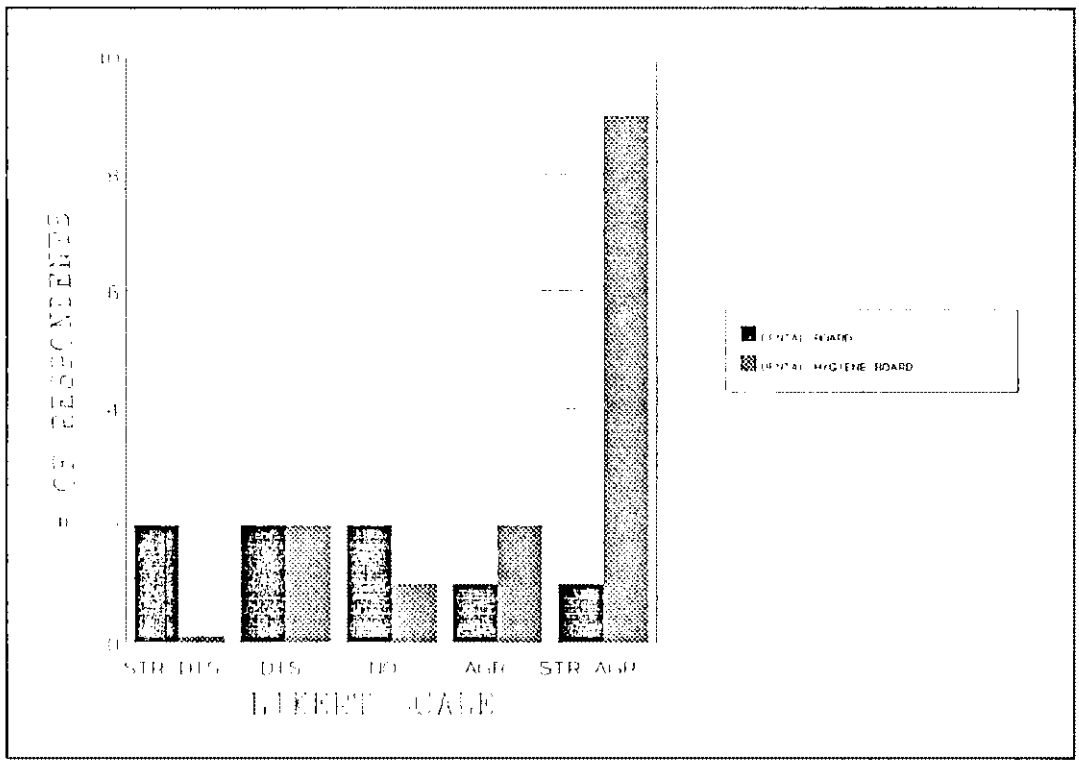


Figure 22

Frequency of Responses to Item 8 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

(See Table 27 and Figure 23). Therefore, one's opinion about whether dental hygienists on separate regulatory boards can more accurately monitor themselves, has a strong association with the type of board membership.

Item 14 "Dentists on regulatory boards can be unbiased when making decisions about dental hygiene," had a -0.607 measure of association between the type of response and the type of board membership of the respondent. One dental board member disagreed, one had no opinion, one agreed and five strongly agreed with the statement. Five of the dental hygiene board members strongly disagreed with the statement, five disagreed, five had no opinion, and one agreed (See Table 28 and Figure 24). Therefore, one's opinion about whether dentists on regulatory boards can be unbiased when making decisions about dental hygiene is moderately associated with board membership.

Item 15 stated, "Dental boards invest adequate time monitoring the practice of dental hygiene." The measure of association between the type of response and type of board membership was -0.369. Two members of dentist controlled boards disagreed with the statement, four agreed and two strongly agreed. Three of the members of dental hygiene controlled boards strongly disagreed, two disagreed, eight had no opinion, two agreed and one strongly agreed (See Table 29 and Figure 25). Therefore, one's opinion about whether dental boards invest adequate time had a weak association with board

Table 27

Frequency of Responses to Item 12 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 12 statement, " When dental hygienists and dentists have separate regulatory boards, each board can more accurately monitor itself."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	5	2	0	1	0	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	0	1	0	7	8	16 67%
TOTAL #	5	3	0	8	8	24
%	21%	13%	0%	33%	33%	100%

Kendall Tau b = 0.719

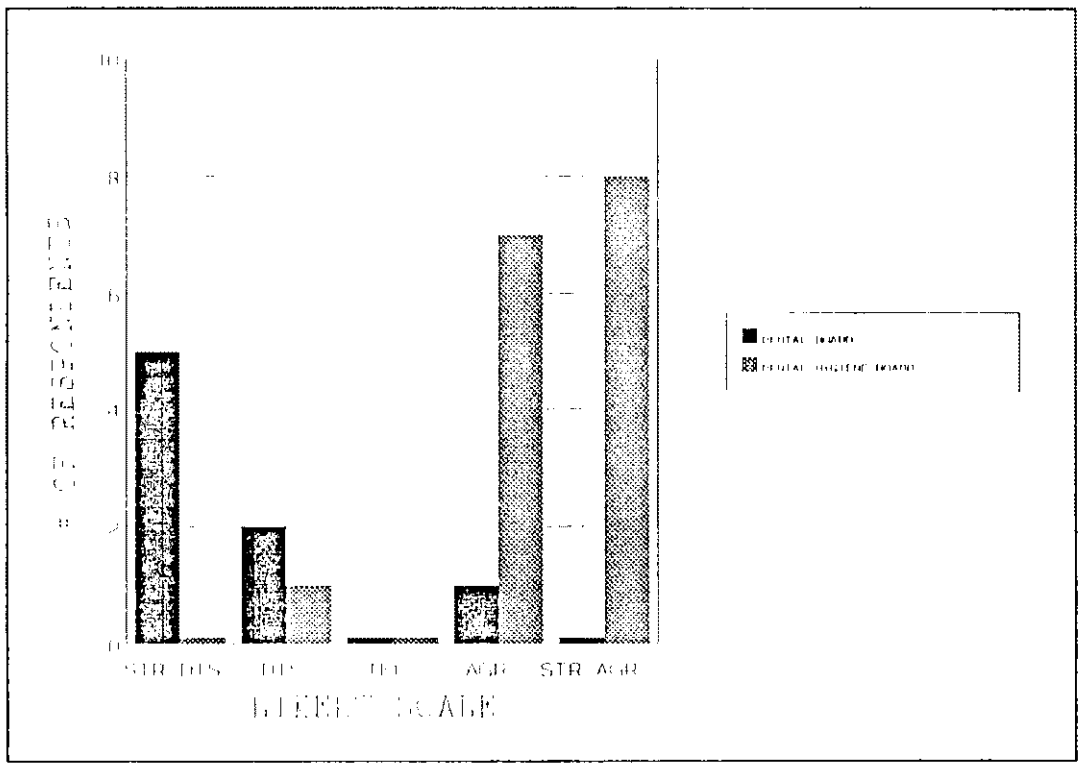


Figure 23

Frequency of Responses to Item 12 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Table 28

Frequency of Responses to Item 14 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 14 statement, Dentists on regulatory boards can be unbiased when making decisions about dental hygiene."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	0	1	1	1	5	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	5	5	5	1	0	16 67%
TOTAL # %	5 21%	6 25%	6 25%	2 8%	5 21%	24 100%

Kendall Tau b = -0.607

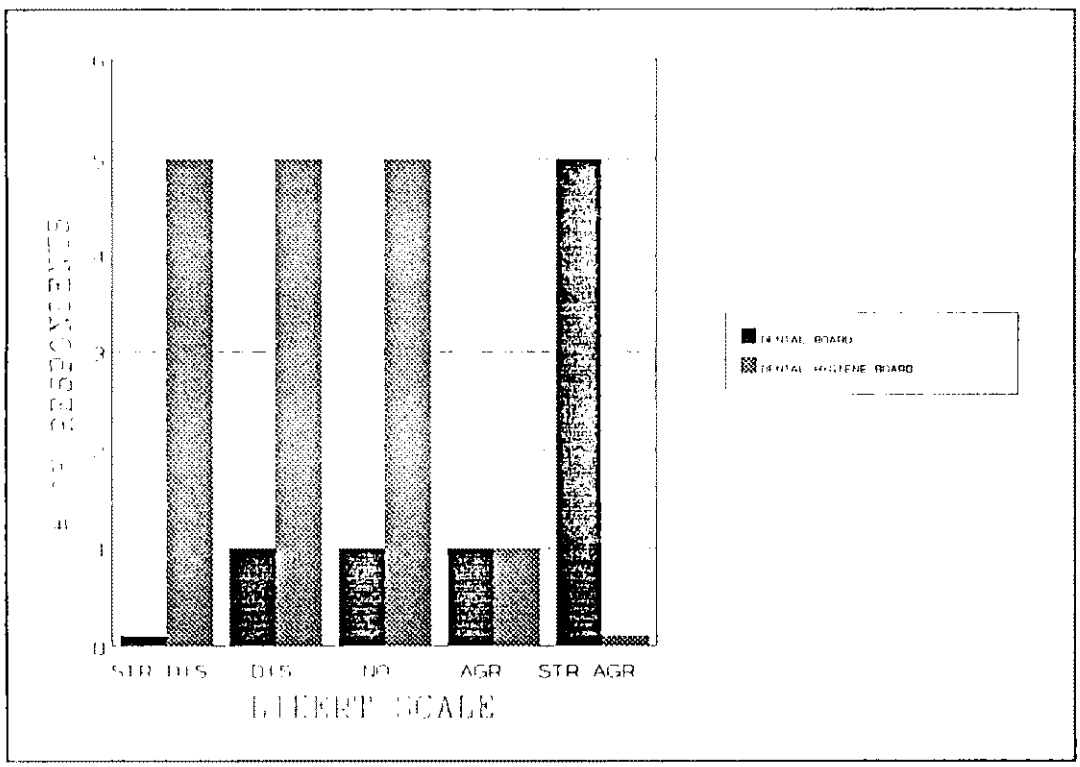


Figure 24

Frequency of Responses to Item 14 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Table 29

Frequency of Responses to Item 15 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 15 statement, "Dental boards invest adequate time monitoring the practice of dental hygiene."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	0	2	0	4	2	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	3	2	8	2	1	16 67%
TOTAL #	3	4	8	6	3	24
%	13%	17%	33%	25%	13%	100%

Kendall Tau b = -0.369

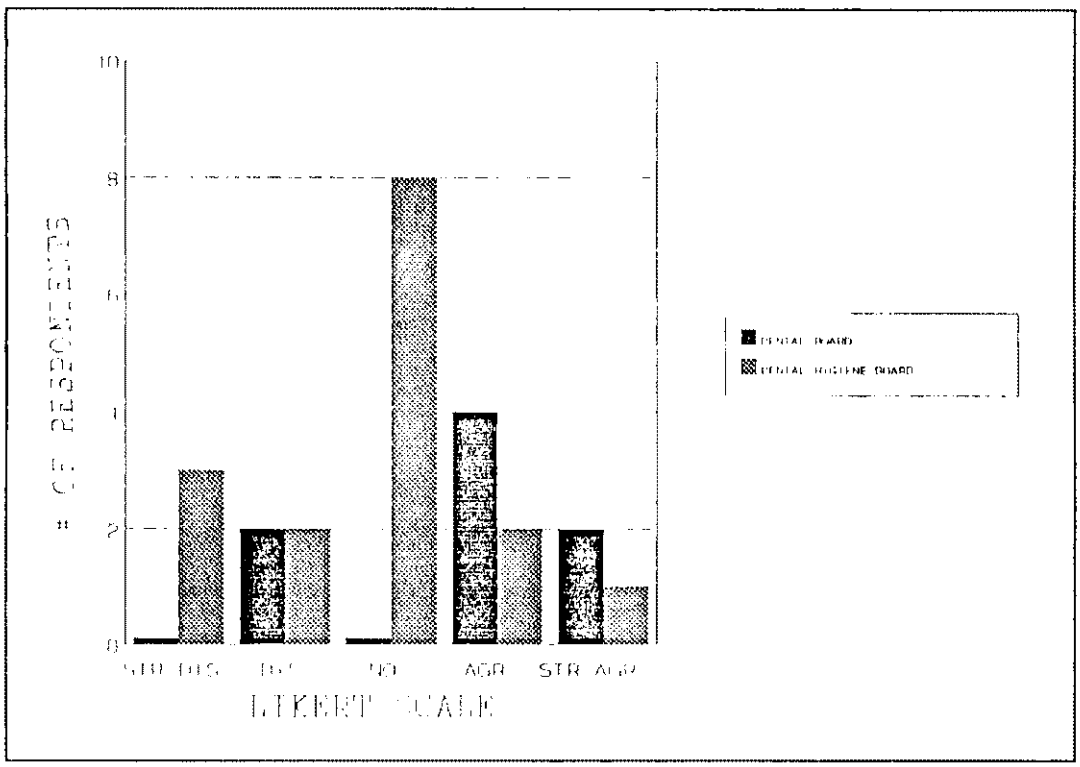


Figure 25

Frequency of Responses to Item 15 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

membership.

Finally, the last statement concerning the board itself was item 16 which stated, "There is economic self-interest on the part of dentistry when it comes to regulating dental hygiene." The measure of association between type of response and type of board membership was 0.470. Three dental board members strongly disagreed with the statement, one disagreed, one had no opinion, one agreed and two strongly agreed. Two of the dental hygiene board members had no opinion, four agreed and ten strongly agreed (See Table 30 and Figure 26). Therefore, one's opinion about whether there is an economic self-interest on the part of dentistry when it comes to regulating dental hygiene has a moderate association with the type of board membership.

Discussion

Discussion of the results are reported in order of their relation to the original research questions posed in this study. Demographics, which were not included in the research questions will be discussed prior to the aforementioned discussion.

Demographics

The overall response rate to the Mueller-Dental Hygiene Regulatory Questionnaire was 55%. When breaking this down, dental hygienist controlled boards had an 80% response rate and dentist controlled boards had a 33% response rate.

Table 30

Frequency of Responses to Item 16 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Item 16 statement, "There is economic self-interest on the part of dentistry when it comes to regulating dental hygiene."

TYPE OF BOARD	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE	TOTAL # %
DENTIST CONTROLLED BOARD	3	1	1	1	2	8 33%
DENTAL HYGIENIST CONTROLLED BOARD	0	0	2	4	10	16 67%
TOTAL # %	3 13%	1 4%	3 13%	5 21%	12 50%	24 100%

Kendall Tau b = 0.470

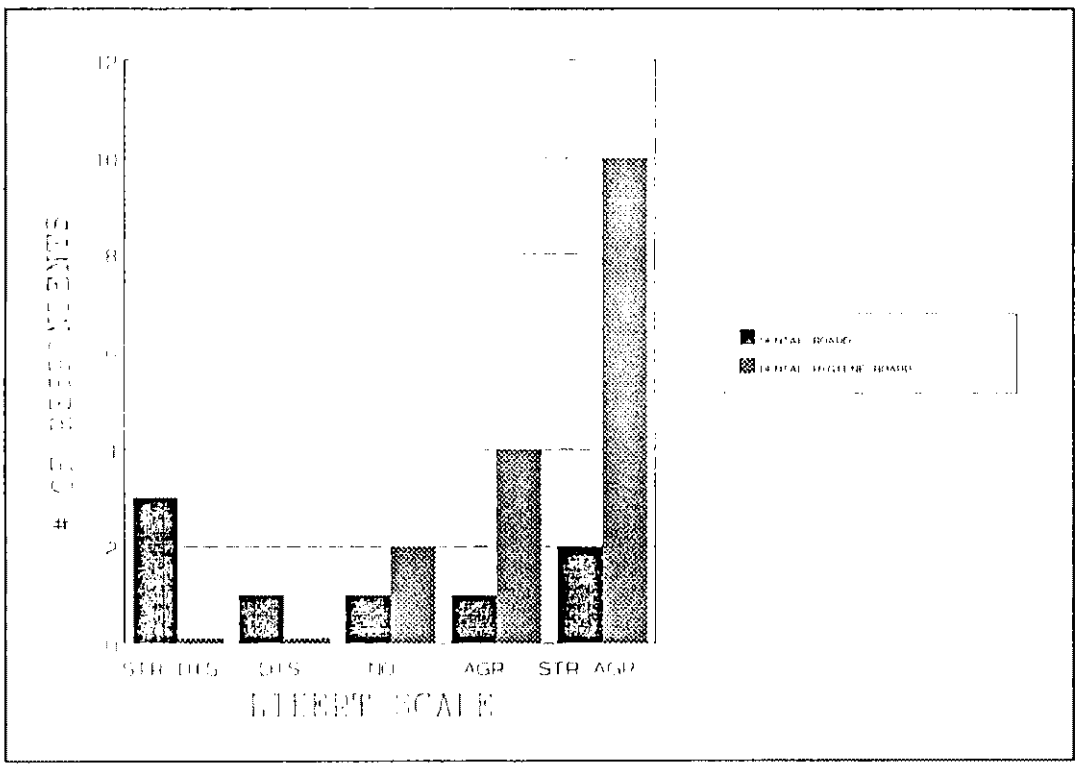


Figure 26

Frequency of Responses to Item 16 by Dental and Dental Hygiene Board Members in the Opinions Section on the Mueller-Dental Hygiene Regulatory Questionnaire.

Perhaps dental board members regarded this questionnaire as an imposition, in light of the polices of organized dentistry regarding dental hygiene self-regulation; hence, the majority of members of dentist controlled boards (77%) did not return the questionnaire. Responses that were given, when follow-up telephone calls were made, consisted of one dentist saying he would refuse to answer the questionnaire even if a third one was sent and two dentists expressing
that they did not agree with dental hygiene self-regulation, and therefore, would not complete the survey. Regardless of the expressed perspectives of the survey population, the questionnaire did not exclude respondents from participation simply because they disagreed with the concept of dental hygiene self-regulation. Rather, it merely afforded a sample of board members an opportunity to express their knowledge and beliefs regarding disciplinary sanction exercised against dental hygienists and their opinions on dental hygiene self-regulation. Perhaps there should have been a statement on the questionnaire or cover letter stating that opinions, for or against dental hygiene self-regulation, could be voiced. In doing this, more of the dental board members might have taken the opportunity to express their beliefs.

Another reason for the low response rate of questionnaires from members of dentist controlled boards might be attributed to a lack of interest on the part of dentistry when dealing with dental hygiene issues, thus agreeing with

Gervasi (1990A), and Terhune-Alty (1992). Possibly the dentist controlled board members felt uncomfortable with the subject of a survey that measured any aspect of dental hygiene regulation or the type of disciplinary decisions made against dental hygienists.

The small number of respondents completing the questionnaire limits the generalizations that can be made regarding disciplinary sanctions of dental hygiene practitioners, or opinions of board members concerning the regulation of dental hygiene. However, limited interpretations follow regarding the data that were collected.

Research Question One

Is there a difference in the disciplinary sanctions exercised against those practicing dental hygiene by regulating bodies in legal jurisdictions with dental hygiene self-regulation as compared to legal jurisdictions without dental hygiene self-regulation?

In the data collected on the Mueller-Dental Hygiene Regulatory Questionnaire, a wide range of disciplinary sanctions exercised against dental hygiene practitioners were reported. Respondents to this portion of the questionnaire were from dentist controlled boards in only three states, Georgia, Maine and Wyoming. Yet, some statements received as many as nine different disciplinary sanctions, with a wide range of severity, which might be exercised against a

practitioner for a single infraction. For example, for the performing duties not allowed by the practice act, the disciplinary sanctions reported included reprimand, continuing education, reexamination, monetary fine, cease and desist, probation, suspension, revocation, and not applicable. With a range of sanctions exercised, it seems as if each regulatory board member has an autonomous perspective, rather than unanimity on a set of state, regional or national or even local standards. One possible interpretation of this wide variation in the response data could be that members of boards regulating dental hygiene might not know the disciplinary sanctions exercised against dental hygiene practitioners within their or other jurisdictions. This wide variation in disciplinary sanctions could be a result of not having an established standard for a particular infraction, or to the low number of dental hygiene disciplinary cases brought before the board, resulting in board members with little background or experience in disciplining dental hygiene practitioners. Because little time is spent on disciplinary sanctions and decision making regarding dental hygiene, the board could be inexperienced in dealing with dental hygiene issues. Still another reason for the lack of attention given to dental hygiene issues might be that dental hygienists are for the most part legal and ethical in their modes of practice, thus, there is little need for frequent disciplinary action against them.

Yet another interpretation for the range of disciplinary sanctions exercised could be that each case is treated on an individual basis. A practitioner, when brought before the board brings unique circumstances which need unbiased decision making from the board. For an individual to be treated fairly, a disciplinary sanction may not be outlined, and punishment may be decided upon once the facts surrounding the case have been investigated fully.

The implications of disciplinary sanctions inconsistently carried out can be detrimental to the regulating body, the practitioner, fellow dental hygiene colleagues and the public. The board might be affected, because there are no standard disciplinary sanctions to adhere to, and also because there is no set precedent to follow. Ambiguity associated with the potential variation in disciplinary sanctions might leave the practitioners with a feeling of uncertainty about possible outcomes when faced with disciplinary hearings. For the same infraction of the law, one practitioner may receive a harsh punishment such as suspension, where another practitioner may only receive a reprimand, which is often considered minimal punishment. Dental hygiene colleagues also might be affected by a lack of consistent disciplinary sanctions. Without a set standard, fellow practitioners might fail to report infractions of the rules, or lose respect for the regulatory system feeling that the board is not taking dental hygiene issues seriously. This follows the ADHA belief that dental

hygiene issues are getting lost among the other issues dental boards are responsible for (ADHA, 1992A; ADHA 1992B; Woodward, 1992A). The public will ultimately be at risk. For example, if incompetent practitioners who are not conforming to the laws and regulations, are not being reprimanded sufficiently, the consumer is at risk of harm. Disciplinary sanctions which are too weak might encourage unqualified or unethical practitioners to continue practicing. Disciplinary sanctions which are to harsh might deter competent practitioners from practice. In each of these aforementioned scenarios, the health, welfare and safety of the public as well as access to quality healthcare are jeopardized.

Since no precedent exists, it is not known whether standardization of disciplinary sanctions would occur under dental hygiene self-regulation. However, some consensus between offenses and the disciplinary sanctions which accompany them should be a goal. Perhaps, if, as believed by the ADHA, dental hygienists were given the opportunity to control the regulation of dental hygiene, the likelihood of standardization of disciplinary sanctions might be increased (ADHA, 1992A; ADHA, 1992B; Woodward, 1992A).

Data on disciplinary sanctions exercised by dental hygiene controlled boards were not analyzed as only one respondent completed the questionnaire. The comment most often given for nonresponse was that the board was too new or that no case had been brought before the board. Although the

dental hygienist controlled boards were all relatively new, there appears to be no set standards or guidelines for making decisions on disciplinary sanctions against dental hygienists. One possible reason for this could be the lack of experience of board members in establishing disciplinary sanctions, or that the members of these newly formed boards were currently in the process of being trained. Another cause for the limited responses on disciplinary sanctions could again be that there are no set standards or guidelines for disciplinary sanctions against dental hygienists who break the law. If this is the situation, the same implications discussed for the dental regulatory boards would hold true for the dental hygiene regulatory boards who have no consistent standards for exercising disciplinary judgements.

If new dental hygiene regulatory boards were formed and substituted for dentist controlled boards, an initial training period may be necessary. These newly formed boards may need transition time to become trained and set and implement policies. This transition time could affect the welfare and safety of the public. For example, a practitioner accused of a wrongdoing may be overlooked if a regulatory board is in a transitional stage from being part of a dentist controlled board to becoming an autonomous dental hygienist controlled board.

For nine of the situations addressed in the questionnaire, (items 7-11, 13, 14, 16 and 17) respondents

indicated that the circumstance was not applicable to dental hygiene. Five of these instances (failure to maintain adequate records, failure to recognize the need for treatment, failure to detect periodontal disease, forgery of a prescription and insurance or medical fraud) might have been viewed by the responding board member as part of the scope of practice of another member of the dental team such as the dentist or the dental assistant. In such instances, it could be understood why an answer such as not applicable would be given. However, in four of the situations (performing duties not allowed by the practice act, harassing a patient verbally, harassing a patient physically and providing substandard care) respondents also answered that this predicament was not applicable to the dental hygienist. In actuality, these situations are applicable to all persons in all healthcare settings. If persons are not held responsible for their own behavior, the public could be at risk. If dental hygienists are not responsible for their performance, regardless of their actions, the supervising dentist must assume responsibility for any civil or criminal action or infraction that may occur in the dental environment. This being the case, the dentist would have sole responsibility to the patient, the dental hygienist would have little responsibility, and substandard care may result. Another possible reason why respondents believed these situations (performing duties not allowed by the practice act, harassing a patient verbally, harassing a

patient physically and providing substandard care) were not applicable to dental hygienists might include that dental hygienists in the jurisdictions surveyed hold very high ethical standards and are infrequently guilty of such infractions of the law. Yet another explanation for the not applicable response could be that the respondents had never been faced with the situation and might have interpreted the response as not being applicable because of their lack of knowledge, rather than not applicable to the practice of dental hygiene.

According to the literature, it is suggested that under separate dental and dental hygiene regulation, each board would have more time to adequately monitor their own issues (ADHA, 1992A; ADHA 1992B; Woodward, 1992A). When analyzing the data, the lack of consistency and lack of dental hygiene disciplinary cases brought before the board might suggest that dental hygiene is not being closely monitored, and that perhaps a dental hygiene board should be established in jurisdictions without dental hygiene self-regulation so that the practice of dental hygiene can be monitored more closely.

Research Question Two

Is there a difference in the opinions of board members regarding the value of self-regulation by members of boards in jurisdictions with dental hygiene self-regulation as compared to jurisdictions without self-regulation.

The measures of association calculated from the data obtained were separated into high, moderate and low association groups for the purpose of this discussion. Calculated numbers ranging from +/-0.70 to +/-1.0 were placed in the high or strong association group, numbers ranging from +/-0.40 to +/-0.699 were placed in the moderate association group and numbers ranging from +/-0.399 to 0.0 were placed in the low or weak association group.

Items 1, 9, 10 and 17 addressed the right of dental hygienists to be self-regulated. Statement one, "It is the right of the dental hygiene profession to be self-regulated," and statement 9, "Dental hygiene should have autonomy from dentistry in terms of the regulatory process," both had a high association, with the dental board members answering mostly strongly disagree or disagree, and most of the dental hygiene board members answering strongly agree or agree. Although board members represent the public, each board member seemed to responded to the statement according to the political beliefs of the organization they most closely affiliate with, organized dentistry or organized dental hygiene respectively. The literature states that the ADA supports a single state board of dentistry as the sole liscensing and regulatory authority for the practice of dental care (ADA, 1988). The ADHA supports self-regulation for the practice of dental hygiene (ADHA, 1992C). Both of these items offer very bold statements which might have put respondents from both boards

on the defensive, causing them to gravitate to the political beliefs of their respective professional organization.

Items 10 and 17 stated, "Dental hygienists should have authority for promulgating rules and regulations regarding the practice of dental hygiene," and "There is an infringement of civil rights when dental hygienists are regulated without representation." Both of these items had a moderate association between the type of board membership of respondents and the way in which they responded. In item 10, the majority of dental board members answered strongly disagree or disagree, however, three either agreed or strongly agreed suggesting some polarization of opinion on the authority of dental hygienists for promulgating rules and regulations regarding the practice of dental hygiene. All of the dental hygiene board members either agreed or strongly agreed that dental hygienists should have this authority. In item 17, five of the dentist controlled board members answered either agree or strongly agree and only two either disagreed or strongly disagreed. Fourteen of the dental hygiene controlled board members answered either agree or strongly agree, and two of the members had no opinion.

These results should be interpreted in light of the fact that the statements did not specifically ask about dental hygiene self-regulation. Regardless of the respondents opinion on self-regulation for dental hygienists, they could believe that dental hygienists should have some authority in

promulgating rules which regulate them and that dental hygienists should be represented. However, the item did not ask if dental hygienists have adequate representation on current regulatory boards. One might agree that dental hygienists should be represented and be a part of the rule making process, but the respondent may also feel that dental hygienists are a part of this process. Perhaps the respondents are saying that dental hygienists should have authority for rule making, and that with the current dental controlled regulatory boards, there is an infringement of civil rights. Neither statement 10 nor statement 17 were as bold as the statements in items 1 and 9, putting the respondent at ease and allowing them to express personal opinions rather than strong beliefs of their professional affiliation.

Items 2 to 7, 11, 13 and 18 reflected general statements about self-regulation. Items 2 and 3 were again bold statements regarding dental hygiene self-regulation, and analysis of data from both yielded a high measure of association. Item 2 stated, "Self-regulation of dental hygiene would benefit dental hygiene as a profession." Item 3 stated that, "Self-regulation of dental hygiene would benefit the public." For statements 2 and 3, as in statements 1 and 9, data suggest that respondents followed the political beliefs of organized dentistry, which supports a single board (ADA, 1988), and organized dental hygiene, which supports

self-regulation (ADHA, 1992C).

Items 4, 5, and 6 were statements regarding regulation; however, they did not mention dental hygiene self-regulation specifically. Analysis of data from items 4 and 6 resulted in a low measure of association. Item 4 stated, "A profession that regulates itself disciplines its members more strictly than if another profession were to regulate it." This statement might have been interpreted in several ways. For example, a respondent could have interpreted this item as dentistry and dental hygiene each disciplining themselves separately; dentists, as the "professionals" disciplining both dentistry and dental hygiene; boards of dentistry as they now exist, with a majority of dentists, few hygienists and consumer members disciplining dentistry and dental hygiene; or possibly as legislators or members of a board of health being in charge of disciplinary action. How the question was interpreted by the respondent would explain the variability in the response and hence the low measure of association.

Item 6 stated, "Peer review results in higher standards than review by another profession." Results suggest that this statement might be defining dentists and hygienists as peers, while another interpretation might be to define dentists as peers of dentists, and dental hygienists as peers of dental hygienists. As with item 4, the way the statement was interpreted by the respondent might determine how the item was answered and the wide variability in the responses. Data also

might suggest that the respondent view
of dental and dental hygiene boards as
as stated in the literature, dent
proportionally represented on regulat
the dental hygiene population in mos
Grady, 1988; Terhune-Alty, 1992; With
1991), and dental representation is minimal in self-regulated provinces, the limited representation that is present could be constituted as peers having input into the review process.

Data from item 5, "Standards are usually higher when one is setting them for one's self," revealed a moderate association between the type of response and the type of board the respondent is a member. Three dental board members either strongly disagreed or disagreed, three strongly agreed or agreed, and two had no opinion on the statement. Two of the dental hygiene board members strongly disagreed or disagreed, 13 strongly agreed or agreed, and one had no opinion. As with the two preceding questions, the current composition of regulatory boards might be considered adequate. The dental hygiene representation that is present on dentist controlled boards could be interpreted as dental hygienists setting standards for themselves. Another interpretation could be that respondents viewed dentists and dental hygienists as the "dental team." In which case, the dental team member would be setting standards for the dental team. Yet another interpretation might be that the "one" referred to in the

statement is dental hygienists. Perhaps some respondents believed that dental hygienists would not set higher standards for dental hygienists than those set by dentists, or that dental hygienists would set higher standards than dentists if dental hygienists were the "ones" setting the standards for the practice of dental hygiene.

Item 7 stated that self-regulation would lead to independent dental hygiene practice. This item had a low association with two dental board members answering strongly disagree or disagree, two with no opinion and four agreeing or strongly agreeing. Seven of the dental hygiene board members strongly disagreed or disagreed, three had no opinion and six strongly agreed or agreed. Data from this item suggests, members of regulatory boards, both dentist and dental hygienists controlled, understand the concept of self-regulation and know that regulation is not supervision. Another interpretation could be that, although regulation and supervision are separate entities, respondents might feel that once dental hygienists become self-regulated, they might acquire lobbying power with the legislature, which could in turn influence laws regarding dental hygienist supervision. With regard to the five respondents who had no opinion on this item, data suggest that these particular board members do not see an association between regulation and supervision and therefore do not understand how the two are connected. Another interpretation could be that since the state of

Colorado is the only jurisdiction in the United States with independent practice, respondents were not familiar with independent practice, and therefore chose not to answer the question. No other rational explanation as to why five of the respondents had no opinion could be identified.

Data from item 11, "Dental hygienists are not trained or educated to regulate themselves," resulted in a low measure of association, with five dentist controlled and 14 dental hygiene controlled board members either strongly disagreeing or disagreeing and three dental board members and two dental hygiene board members agreeing or strongly agreeing. One interpretation of this variability in the data might be that some respondents felt that those dental hygienists who do represent dental hygiene on regulatory boards are well educated and possess the competence to regulate the practitioners they represent. Other respondents might have felt that since United States dental hygienists are required to attend an accredited program and pass national and regional examinations, that they are qualified to assume responsibility for regulation. Still other respondents may believe that advanced education beyond the baccalaureate degree is necessary for autonomous regulation. Yet another interpretation might reflect on how the statement was written. Although dental hygienists are educated enough to regulate the practice of dental hygiene, the statement does not specify if they should be the sole regulators of dental hygiene. If some

respondents believed that the currer
regulatory boards are adequate, they
hygienists are educated enough to re
collaboration with dentists.

Data from item 13, "Self-regulat
will break up the dental team,"
association between the response and the type of board membership. Three of the dental board members and all of the dental hygiene board members either strongly disagreed or disagreed, which is in accordance with the beliefs of the ADHA (ADHA, 1992B), and five of the dental board members either strongly agreed or agreed, which is in accordance with the beliefs of organized dentistry (Stifter, 1993; Berry, 1992B). When interpreting the data, one explanation for the dental boards agreement and dental hygiene disagreement could stem from the policies and beliefs of organized dentistry and organized dental hygiene. Perhaps the respondents felt that even if dental hygiene became self-regulated, the practice acts would not change and both dental hygienists and dentists would continue to work side by side in the same environment.

Item 18, the last general statement regarding the regulation of dental hygiene, had a moderate association of 0.521. It stated, "Self-regulation will create a licensure examination process which is conducted by a majority of dental hygiene (expert) practitioners." Data might suggest that whether or not a respondent agreed with self-regulation,

respondents agreed with the literature, that if dental hygiene is self-regulated, dental hygienists will conduct the examination process (Gervasi, 1992A; Lyons, 1992; Terhune-Alty, 1992). Another interpretation could be that in some jurisdictions dental hygienists do have input into dental hygiene licensure examinations. A respondent might have felt that whether self-regulated or not, dental hygienists will continue to be part of the examination process.

Items 8, 12 and 14 to 16 provided statements to elicit opinions concerning the various aspects of the board itself. Item 12, which stated, "When dental hygienists and dentists have separate regulatory boards, each board can more accurately monitor itself," was the only statement in this section that had a high association between the type of board membership and the response given. Seven of the dental board members, in accordance with the beliefs of organized dentistry, either strongly disagreed or disagreed and one agreed. Fifteen of the dental hygiene board members, following the beliefs of organized dental hygiene, either strongly agreed or agreed and one disagreed. Data suggest that the respondents opinions reflected the beliefs of organized dentistry or dental hygiene, respectively. Another interpretation could be that one's opinion favored the current board structure of which they currently are a member. Both dental and dental hygiene board members may be unwilling to admit that their current boards are failing to regulate dental

hygiene adequately.

Analysis of data from items 8, 14 and 16 all revealed a moderate association between one's opinion and type of board membership. Item 8 stated, "Dental hygienists have equal representation on their respective boards." Four of the dental board members either strongly disagreed or disagreed, two had no opinion and two either agreed or strongly agreed. Two of the dental hygiene board members either strongly disagreed or disagreed, one had no opinion and 11 either strongly agreed or agreed. The intent of this question was to have "equal" either mean proportionately equal to the number of licensees in the particular jurisdiction which the respondent represented, or "equal" meaning the same number of dentists and hygienists on a regulatory board. No logical interpretation could be found for this data, as neither of the intentions of the question hold true for any regulatory boards used in the study. On the dentist controlled boards, the number of dental hygienists are in no way equal to the number of dentists, nor are the numbers of dental hygienists board members proportionate to the number of licensed dental hygiene practitioners in the state. On the dental hygiene boards in Canada, there are dental hygiene and consumer members, and dental representation occurs in an observing role in one province.

Analysis of data from item 14, "Dentists on regulatory boards can be unbiased when making decisions about dental

hygiene," resulted in a moderate association between one's opinion and the type of board membership. For this item, one dental board member disagreed, one had no opinion and six either strongly agreed or agreed. Ten of the dental hygiene board members either strongly disagreed or disagreed, five had no opinion, and one agreed. One interpretation for the agreement expressed by dental board members might be that, as in statement 12, members of regulatory boards were unwilling to admit that the structure of current regulatory boards might be ineffective. Another interpretation could be that members of dentist controlled boards were voicing opinions based on the beliefs of organized dentistry, with whom they most affiliate. The disagreement of the dental hygiene boards to this statement might be a result of respondents voicing the beliefs of organized dental hygiene charging dentistry with economic self-interest (ADHA, 1992B; Brutvan, 1990; Gervasi, 1990A; Gervasi, 1990B; Gurenlian, 1991A; Lyons, 1992; Terhune-Alty, 1992; TDHA, 1993; Woodward, 1992A). One concern in interpreting the data in this item is the number of dental hygiene board members who responded with no opinion. The high rate of dental hygiene board respondents (n=5) with no opinion might be because of the minimal experience with a newly appointed dental hygiene board. The high rate of respondents with no opinion also might be because members of dental hygienists controlled boards have not had the opportunity to work with dentists on their regulatory board. No other

rational explanation could be identified.

Analysis of data from item 16, "There is an economic self-interest on the part of dentistry when it comes to regulating dental hygiene," resulting in a moderate association between ones opinion and the type of board membership. Four of the dental board members, following the opinions of organized dentistry, expressed in the literature, either strongly disagreed or disagreed, one had no opinion and three agreed. Two of the dental hygienist controlled board members had no opinion and 14, following the opinions of organized dental hygiene expressed in the literature, either agreed or strongly agreed. One interpretation of this data, again might be that there is an unwillingness on the part of dental board members to admit weakness in the structure of the current dental boards. One interpretation for dental hygiene board members agreeing with the statement could be that, as in statement 14, they have no experience working with dentists on a regulatory board, and that they are simply voicing the opinions of organized dental hygiene. Perhaps they are reflecting the experiences of dental hygienists who have found that board decisions have too often been made with the economic self-interest of dentistry in mind. This opinion has also been expressed by the Federal Trade Commission and The Institute of Medicine (FTC, 1980; IOM, 1988).

The last item to elicit opinions on various aspects of the regulatory board itself, was item 15. This item had a low

association and stated, "Dental boards invest adequate time monitoring the practice of dental hygiene." On this item, eight (50%) of the dental hygiene board members responded that they had no opinion. Results might suggest the inexperience of a new board. Another interpretation might be that these board members have no opportunity to work with dentists in a regulatory manner. Other respondents might have observed that an inadequate amount of time exists to address the already large number of dental disciplinary cases that come before the board, leaving little time to invest in solving dental hygiene problems.

CHAPTER 5

SUMMARY AND CONCLUSIONS

The purpose of regulating a profession is to protect the health, safety and welfare of the public (ADHA, 1992A; ADHA, 1992B; Woodward, 1992A). This protection can be achieved through the use of policing powers and the disciplining of the practitioners that are regulated.

Self-regulation is the transfer of authority from the legislature, who makes the laws and set the statutes, unto the profession itself. The profession then has the authority, within a legal jurisdiction, to discipline practitioners, set requirements for licensure, perform administrative responsibilities and determine education standards within the practice act (ADHA, 1992B; Gurenlian, 1991A).

In most of the United States and some parts of Canada, dental hygienists are under the legal purview of dentist controlled regulatory boards. This situation is unique because most occupations, such as nursing, physical therapy, and medicine are self-regulated, that is, not regulated by another profession (ADHA, 1992B).

Dental hygiene self-regulation is a controversial subject between organized dental hygiene and organized dentistry. The literature is abundant with opinions from both dentistry's

and dental hygiene's perspective of the dental hygiene regulation issue. However, no studies or documented facts could be found.

Thus a study was conducted to (1) examine the effect of self-regulation on disciplinary sanctions exercised by regulatory boards toward practitioners of dental hygiene, and (2) explore the opinions of members of dentist controlled boards as compared to dental hygienist controlled boards on the regulation of dental hygiene. Governing bodies from legal jurisdictions with dental hygiene self-regulation: Alberta, Ontario and Quebec, and jurisdictions without dental hygiene self-regulation: Georgia, Maine and Wyoming, were surveyed using the Mueller-Dental Hygiene Regulatory Questionnaire. An attempt was made to measure differences between the two forms of regulatory control. Unfortunately, despite a second mailing and follow-up phone calls, 77% of members from dentist controlled boards, for whatever reason, were unwilling to respond to the questionnaire. Consequently, the small number of respondents completing the questionnaire limit the broad generalizations that can be made regarding disciplinary sanctions of dental hygiene practitioners and opinions of board members regarding the regulation of dental hygiene.

Results obtained in this study suggest a wide variation in the types of disciplinary sanctions exercised against dental hygiene practitioners. Data also suggest that there is variability in the opinions of board members regarding the

regulation of dental hygienists.

In analyzing the demographic data, a 55% overall response rate was achieved. Breaking this down, dental hygiene controlled boards had an 80% (n=16) response rate and dentist controlled boards had a 33% (n=8) response rate. Twenty-five percent (n=6) of the respondents were dentists, 50% (n=12) of the respondents were dental hygienists and 21% (n=5) of the respondents were public members.

Data collected regarding disciplinary sanctions show a wide variability of punishment exercised against dental hygiene practitioners. With the range of sanctions exercised, each regulatory board member was autonomous, rather than conforming to a set of state, regional or national standards. A lack of set standards puts the health, welfare and safety of the public as well as access to quality healthcare in jeopardy. For example, if incompetent practitioners who are not conforming to the laws and regulations, are not being reprimanded sufficiently, the consumer is at risk of harm. Also, for the same infraction, one practitioner may receive a harsh penalty such as a suspension of the dental hygiene license, while another practitioner may receive a weak reprimand; therefore, inhibiting one practitioner from performing dental hygiene oral healthcare and encouraging another, possibly incompetent practitioner, to continue practicing.

Respondents to the "Disciplinary Sanctions" portion of

the questionnaire were from dentist controlled boards only. Respondents from dental hygiene controlled boards were unable to complete the "Disciplinary Sanctions" portion of the questionnaire, as they were newly formed and had not yet exercised disciplinary sanctions against dental hygiene practitioners.

Data collected from the "Opinions" portions of the questionnaire were analyzed using the Kendall Tau b measure of association. Respondents from all six jurisdictions of the sample replied to this portion of the study. Statements in the opinions section were divided into three groups, the right of dental hygiene to be self-regulated, general statements regarding self-regulation and statements to elicit opinions regarding the composition of the regulating board itself. The calculated measures presented a variation of association in all three areas between the opinions a board member holds and the type of board membership. The two areas with the strongest measure of association between one's opinion and type of board membership related to dental hygiene self-regulation benefitting the public and the right of dental hygiene to be self-regulated with dentist controlled board members either strongly disagreeing of disagreeing and dental hygienist controlled board members either strongly agreeing or agreeing with these statements. The two areas with the weakest measure of association related to dental hygienists being educated enough to become self-regulated and dental

hygiene self-regulation leading to independent practice.

Considering the findings and limitations of this investigation, the following conclusions are offered:

1. No definitive conclusion could be made regarding the disciplinary sanctions exercised against those practicing dental hygiene by regulatory boards in legal jurisdictions with dental hygiene self-regulation as compared to legal jurisdictions without dental hygiene self-regulation, because the dental hygiene controlled boards were newly formed and had not yet exercised disciplinary sanctions. However, data collected from dentist controlled boards (Georgia, Maine and Wyoming) reflected a wide range of sanctions for any one infraction and no set guideline for the severity of the discipline.

2. No conclusion could be made regarding the difference in the opinions of board members regarding the value of self-regulation by members of boards in jurisdictions with dental hygiene self-regulation as compared to jurisdictions without self-regulation. The members of regulatory boards in, Alberta, Ontario, Quebec, Georgia, Maine and Wyoming had varying association between opinions regarding dental hygiene self-regulation and the type of regulatory board of which they were a member.

As a result of this study, the following recommendations for future study are offered:

1. Further establish validity and reliability of the

Mueller-Dental Hygiene Regulatory Questionnaire.

2. Replicate this study using different randomly selected states to represent dentist controlled regulatory boards.

3. Replicate this study within the United States utilizing the self-regulated dental hygiene board in New Mexico, the Dental Hygiene Committee in Washington State and other states that would become self-regulated along with randomly chosen states with dentist controlled boards, once these boards have become well established in disciplinary sanction procedures.

4. Replicate this study utilizing a sample of randomly chosen members of a multitude of dental and dental hygiene regulatory boards rather than the entire membership of a select few dental and dental hygiene regulatory boards.

5. Replicate this study when Canadian self-regulated boards have become well established in procedures regarding disciplinary sanctions.

6. Combined investigations should be conducted by researchers to determine if geographical region or supervision requirements affect disciplinary sanctions of dental hygiene practitioners and opinions of dental and dental hygiene regulatory board members concerning the regulation of dental hygiene.

As dental hygiene and dentistry continue to struggle with the issue of how dental hygiene should be regulated, research

must continue so that statues, rules and regulations are established that are in the best interest of the public. Hopefully, organized dentistry and dental hygiene will support efforts that lead to quality oral healthcare for all.

BIBLIOGRAPHY

Allukian, M. (1991). The Public Health Vacuum in State Dental Licensing Boards. Journal of Public Health Dentistry, 51, 67-8.

American Association of Dental Examiners (AADE). (1992). Composite (3-20). Chicago: AADE.

American Dental Association. (1988A). Comprehensive Policy Statement on Dental Auxiliaries. American Dental Association, 30.

American Dental Association. (1988B). State Dental Boards. Journal of the American Dental Association, 117, 423-424.

American Dental Association. Chicago: American Dental Association House of Delegates Manual (1975)

American Dental Hygienists' Association. (1992A). Dental Hygiene Self-Regulation: The Informed Choice for Tomorrows World. Access, 6, Supplement.

American Dental Hygienists' Association. (1992B). Fact Sheet. American Dental Hygienists Association.

American Dental Hygienists' Association. (1992C). ADHA Association Policy Manual.

American Dental Hygienists' Association. (1994). New Mexico Achieves Self-Regulation. Access, 8, Supplement.

Armacost, L. (1994). Governmental Affairs, American Dental Hygienists' Association. Telephone Conversation, May.

Berry, J. (1992A). ADHA President Speaks on Hygiene's Objectives. ADA News, April 6, 29-31.

Berry, J. (1992B). States Face Legislation on Hygiene. ADA News, April 6, 1-2.

Berry, J. (1992C). Hygiene Pursues Self-Regulation: Public Health at Stake. ADA News, March 23, 1-11.

Brutvan, E. (1990). An Open Letter to Members of the Dental Hygiene Profession Concerning the Standard Revision Process. Access, 4, 11.

College of Dental Hygienists of Ontario (CDHO). (1993). Draft Core Regulations, July 2.

Darby, M.L. (1983). Collaborative Practice Model: The Future of Dental Hygiene. Journal of Dental Education, 47, 589-593.

Federal Trade Commission (FTC). (1980). Commission Statement Upon Closing the Dental Hygienist Portion of Its Investigation of Dental Industry Practices. (File No. 772-3020), Nov. 24.

Francis, J. (1993). The Politics of Regulation. Cambridge: Blackwell (56).

Gervasi, R. (1990A). Self-Regulation: Dental Hygienists Taking Matters into their Own Hands. Access, 4, 6-10.

Gervasi, R. (1990B). An Idea Whose Time Has Come. Access. 4, 4, 13.

Glover, W. (1989). Trends in State Practice Acts: Quality, Access and Cost--Striking a Balance. Journal of Public Health Dentistry, 49, 224-227.

Grady, A. (1988). Dental Hygienists' and State Boards of Dentistry--An Overview of the Legislative Action Packet. Dental Hygiene, 62, 87-90.

Gurenlian, J.R. (1990). Gervasi, R. (1990). Self-Regulation: Dental Hygienists Taking Matters into Their Own Hands. Access, 4, 9.

Gurenlian, J.R. (1991A). Can State Licensing Boards Do Better? Journal of Dental Hygiene, Jan., 8-10.

Gurenlian, J.R. (1991B). Dental Hygienists' Perceptions of their Professional Status and Prestige. Unpublished doctoral dissertation, University of Pennsylvania.

Institute of Medicine (IOM). (1988). Allied Health Service: Avoiding Crisis. Institute of Medicine Nation Academy of Sciences, Washington.

Johnson, P. (1988A). Canadian Dental Hygiene Study: Part 1. Probe, 22, 124-127.

Johnson, P. (1988B). Canadian Dental Hygiene Study: Part 2. Probe, 22, 169-172.

Johnson, P. (1989). Self-Regulation for Dental Hygiene, The Canadian Example. Journal of Dental Hygiene, July-August, 294-301.

Lewis, C. (1994). Washington State, Program Manager for Dental Hygiene. Telephone Conversation, March.

Lyons, S. (1992). In Search of Self-Regulation. Access, 6, 9-14.

Lyons, S. (1994). Ontario Dental Hygienists Become Self-Regulating. Access, 2, 42.

Morris, W. O.,Conger, S. X. (1989). A Decade of Dental Litigation Dental Hygienist: Part Four. Journal of Law and Ethics in Dentistry, 2, 4-10.

Motley, W. (1983). History of the American Dental Hygienists' Association: 1923-1982. Chicago: American Dental Hygienists' Association (334).

Ontario Ministers of Health, (1988). Overview of Recommendations.

Province of Alberta (Alberta). (1990). Dental Disciplines Act. The Queen's Printer for Alberta, July 5.

Reveal, M. (1989). Dental Hygiene Regulation and Practice. Journal of Public Health Dentistry, 49, 228-230.

Romary, P. (1989). A Consumer Protection Perspective on the Public Interest in State Practice Acts. Journal of Public Health Dentistry, 49, 235-236.

Stifter, R. (1993). Separate Dental Hygiene Boards Not Justified. Wisconsin Dental Association Journal, Jan./Feb., 30.

Teachman, J. (1994). Washington State, Department of Health. Telephone conversation. March.

Terhune-Alty, C. (1992). The Road to Autonomy. RDH, 12, 22-26.

Texas Dental Hygienists' Association (TDHA). (1993). President's Letter Newsletter, February 15.

Walker, B. et al. (1993). Self-Regulation in Alberta Canada: The Achievement of a Goal. Probe, July 25.

Washington State. (1994). The Law Relating to Dental Hygienists, The State of Washington Department of Health.

Witherspoon, K. (1992). A Long and Winding Road to Self-Regulation. RDH, 12, 6.

Woodall, I. (1987). Legal, Ethical and Management Aspects of the Dental Care System. Washington D.C., C. V. Mosby, 250-251.

Woodall, I. (1991). Self-Regulation Needs Commitment from RDH's. RDH. 11, 8-10.

Woodward, V. (1992A). A Closer Look At Self Regulation. Presentation to the Wisconsin Dental Hygienist Association House of Delegates, April, Unpublished.

Woodward, V. (1992B). Past-President, American Dental Hygienists' Association. Telephone Conversation, September.

APPENDIX A

MUELLER-DENTAL HYGIENE REGULATORY QUESTIONNAIRE

Mueller-Dental Hygiene Regulatory Questionnaire

MUELLER-DENTAL HYGIENE REGULATORY QUESTIONNAIRE

GENERAL DIRECTIONS:

If you are NOT currently a member of a board regulating the practice of dental hygiene, please return the questionnaire unanswered in the postage paid envelope provided. Please mail the enclosed postcard separately.

If you ARE currently a member of a board regulating dental hygiene, please complete the questionnaire and return it in the enclosed postage paid envelope. Please mail the enclosed postcard separately.

Thank you for your participation!

PART I: DISCIPLINARY SANCTIONS

DIRECTIONS:

Listed on the next page are situations which may require the Board to exercise disciplinary sanctions. For each situation, please identify the disciplinary sanction that is most likely to be administered within your jurisdiction by circling the appropriate answers. In the column labeled "Amount," please specify the most likely monetary penalty, if any, or the length of time or number of hours of the specific disciplinary sanction. Please circle all that apply.

DISCIPLINARY SANCTION

SITUATION	1 REMEDIAL OR CONTINUING EDUCATION	2 REPRIMAND	3 OFFICE INSPECTION	4 REEXAMINATION	5 COMMUNITY SERVICE	6 MONETARY PENALTY	7 CEASE AND DESIST	8 PROBATION WITH TERMS & CONDITIONS	9 SUSPENSION	10 REVOCATION	11 OTHER	NA NOT APPLICABLE	Specify Amount	Comments
1. Practicing without a license	1	2	3	4	5	6	7	8	9	10	11	NA	_____	_____
2. Practicing with an expired license	1	2	3	4	5	6	7	8	9	10	11	NA	_____	_____
3. Practicing or attempting to practice dental hygiene services while ability was impaired by mental or emotional disorder	1	2	3	4	5	6	7	8	9	10	11	NA	_____	_____
4. Practicing or attempting to practice dental hygiene services while ability was impaired by drugs or alcohol	1	2	3	4	5	6	7	8	9	10	11	NA	_____	_____
5. Obtaining a controlled substance through the use of an unauthorized prescription	1	2	3	4	5	6	7	8	9	10	11	NA	_____	_____
6. Self-administering schedule II or III controlled substances	1	2	3	4	5	6	7	8	9	10	11	NA	_____	_____
7. Failure to maintain adequate records	1	2	3	4	5	6	7	8	9	10	11	NA	_____	_____
8. Performing duties not allowed by the practice act	1	2	3	4	5	6	7	8	9	10	11	NA	_____	_____

DISCIPLINARY SANCTION

SITUATION	REMEDIAL OR CONTINUING EDUCATION	REPRIMAND	REEXAMINATION	OFFICE INSPECTION	COMMUNITY SERVICE	MONETARY PENALTY	CEASE AND DESIST	PROBATION WITH TERMS & CONDITIONS	SUSPENSION	REVOCATION	OTHER	NOT APPLICABLE	Specify Amount	Comments
9. Harassing or abusing a patient verbally	1	2	3	4	5	6	7	8	9	10	11	NA		
10. Harassing or abusing a patient physically	1	2	3	4	5	6	7	8	9	10	11	NA		
11. Failure to recognize the need for treatment	1	2	3	4	5	6	7	8	9	10	11	NA		
12. Failure to comply with Center for Disease Control (CDC) guidelines	1	2	3	4	5	6	7	8	9	10	11	NA		
13. Failure to detect periodontal disease	1	2	3	4	5	6	7	8	9	10	11	NA		
14. Forgery of a prescription	1	2	3	4	5	6	7	8	9	10	11	NA		
15. Unprofessional conduct	1	2	3	4	5	6	7	8	9	10	11	NA		
16. Insurance or Medicaid fraud	1	2	3	4	5	6	7	8	9	10	11	NA		
17. Providing substandard dental hygiene care	1	2	3	4	5	6	7	8	9	10	11	NA		

For the next three questions, please write a number in the appropriate space.

18. What is the number of *dental hygiene* disciplinary cases brought before your [illegible]

1992 _____

1991 _____

19. Of these cases identified in question 14, how many received disciplinary sanctions

1992 _____

1991 _____

20. From the time it is initially filed until a decision on the case is made, what is the average length of time it takes to address a complaint?_____

21. Of the situations listed in Part I, items 1-17, which are the most frequently filed complaints against dental hygienists? Circle all that apply. **NOTE:** the following numbers correspond to Part I items 1-17.

1	4	7	10	13	16
2	5	8	11	14	17
3	6	9	12	15	

22. Who are the main sources of complaints against dental hygienists? (Please check all that apply.)

☐ Patients ☐ Dentists

☐ Dental Hygienists ☐ Other _____

PART II: OPINIONS ABOUT THE REGULATION OF DENTAL HYGIENE

DIRECTIONS:
Listed below are statements relating to the regulation of dental hygiene. Please circle the number which best corresponds to your opinion.

	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
1. It is the right of the dental hygiene profession to be self-regulated	1	2	3	4	5
2. Self-regulation of dental hygiene would benefit dental hygiene as a profession	1	2	3	4	5
3. Self-regulation of dental hygiene would benefit the public	1	2	3	4	5
4. A profession that regulates itself disciplines its members more strictly than if another profession were to regulate it	1	2	3	4	5
5. Standards are usually higher when one is setting them for one's self	1	2	3	4	5
6. Peer review results in higher standards than review by another profession	1	2	3	4	5
7. Self-regulation would lead to independent dental hygiene practice	1	2	3	4	5
8. Dental hygienists have equal representation on their respective regulating body	1	2	3	4	5

	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
9. Dental hygienists should have autonomy from dentistry in terms of the regulatory process	1	2	3	4	5
10. Dental hygienists should have authority for promulgating rules and regulations regarding the practice of dental hygiene	1	2	3	4	5
11. Dental hygienists are not trained or educated to regulate themselves	1	2	3	4	5
12. When dental hygienists and dentists have separate regulatory boards, each board can more accurately monitor itself	1	2	3	4	5
13. Self-regulation by dental hygienists will break up the dental team	1	2	3	4	5
14. Dentists on regulatory boards can be unbiased when making decisions about dental hygiene		2	3	4	5
15. Dental hygienists need adequate time monitoring the practice of dental hygiene	1	2	3	4	5
16. There is economic self- interest on the part of dentistry when it comes to regulating dental hygiene	1	2	3	4	5
17. There is an infringement of civil rights when dental hygienists are regulated without representation	1	2	3	4	5
18. Self-regulation will create a "censure examination process which is conducted by a majority of dental hygiene (expert practitioners	1	2	3	4	5

PART III: DEMOGRAPHIC INFORMATION

Please place a check in the box adjacent to the most appropriate answer.

1. What is your gender?

- ☐ Male
- ☐ Female

2. What was your age at the time of your last birthday?

- ☐ 18-23
- ☐ 24-29
- ☐ 30-35
- ☐ 36-41
- ☐ 42-47
- ☐ 48-53
- ☐ 54-59
- ☐ 60+

3. What is your occupation?

- ☐ Dental Hygienist
- ☐ Dentist
- ☐ Consumer
- ☐ Other (Please Specify) _____

If you are not a dental hygienist or dentist please go directly to question number 6.

4. What is the highest educational credential you have obtained?

- ☐ Diploma
- ☐ Certificate
- ☐ Associates Degree
- ☐ Bachelors Degree
- ☐ Masters Degree
- ☐ Doctoral Degree

5. How many years of experience do you have in your current profession?

- ☐ 0-4
- ☐ 5-9
- ☐ 10-14
- ☐ 15-19
- ☐ 20-24
- ☐ 25-29
- ☐ 30-34
- ☐ 35-39
- ☐ 40-44
- ☐ 45 or More

6. [illegible] regulatory [illegible] are you a member?

- ☐ Board of Dentistry
- ☐ Board of Dental Hygiene
- ☐ Other: Please Specify: _____

7. How many dental hygienists are licensed in your jurisdiction?

_____

8. What powers does the statute provide to your board? (please check all that apply)

- ☐ Establish licensure requirements
- ☐ Act on complaints
- ☐ Render decisions on hearings
- ☐ Discipline practitioners
- ☐ Set educational requirements
- ☐ Conduct public hearings for administrative rule-making process
- ☐ Make rules and regulations that put the statute into practice
- ☐ Other (Please specify)_____

_____

9. How many years have you been a member of this particular board?

_____

Thank you for your time in completing the questionnaire.

Please return in the prepaid envelope to:

Jodie A. Mueller
School of Dental Hygiene
College of Health Sciences
Old Dominion University
Norfolk, VA 23529-0499

APPENDIX B

COVER LETTER-INITIAL MAILING-PILOT STUDY

OLD DOMINION UNIVERSITY

Gene W. Hinchliffe School of Dental Hygiene
and Dental Assisting
College of Health Sciences
Norfolk, Virginia 23529-0499
(804) 683-3510

April 26, 1993

Dear Board Member:

A survey is being conducted to determine opinions regarding the regulation of dental hygienists and disciplinary sanctions against dental hygienists in legal jurisdictions with and without dental hygiene self-regulation in the United States and Canada. Your participation in this study is essential.

The questionnaire should take approximately 15 minutes to complete. Each question should be answered honestly and accurately. Please comment on any responses you feel need clarification or any questions that seem unclear. You may use the back of the questionnaire if you need extra room.

Please complete the enclosed questionnaire and return it in the postage paid envelope by May 7, 1993. The postcard included in this packet should be returned separately from the survey to insure confidentiality and anonymonity of your responses. All results from this study will be reported in group form only.

Results of this study will be available in December 1993. If you are interested in the outcome of this study, please send your request to the address listed below. Thank you for your participation.

Sincerely,

Jodie A. Mueller, RDH BS
Masters Degree Candidate

Old Dominion University
School of Dental Hygiene
College of Health Sciences
Norfolk, VA 23529-0499

OLD DOMINION UNIVERSITY

Gene W. Hirschfeld School of Dental Hygiene
and Dental Assisting
College of Health Sciences
Norfolk, Virginia 23529-0199
(804) 683-3410

July 15, 1993

Dear Board Member:

A survey is being conducted to determine opinions regarding the regulation of dental hygienists and disciplinary sanctions against dental hygienists in legal jurisdictions with and without dental hygiene self-regulation in the United States and Canada. Your participation in this study is essential.

The questionnaire should take approximately 15 minutes to complete. Each question should be answered honestly and accurately. Please comment on any responses you feel need clarification or any questions that seem unclear. You may use the back of the questionnaire if you need extra room.

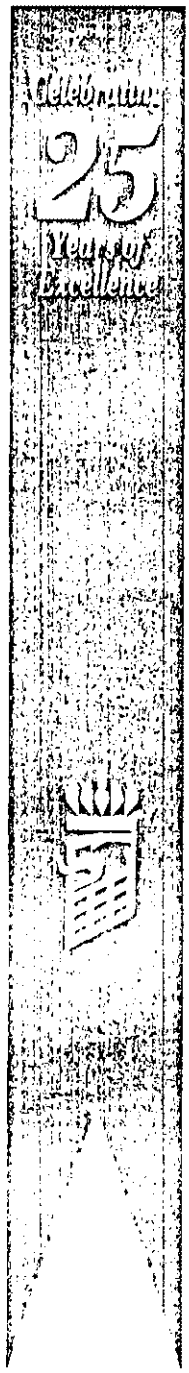
Please complete the enclosed questionnaire and return it in the postage paid envelope by August 1, 1993. The postcard included in this packet should be returned separately from the survey to insure confidentiality and anonymonity of your responses. All results from this study will be reported in group form only.

Results of this study will be available in December 1993. If you are interested in the outcome of this study, please send your request to the address listed below. Thank you for your participation.

Sincerely,

Jodie A. Mueller, RDH BS
Masters Degree Candidate

Old Dominion University
School of Dental Hygiene
College of Health Sciences
Norfolk, VA 23529-0499



OLD DOMINION UNIVERSITY

Gene W. Hazelchild School of Dental Hygiene
and Dental Assisting
College of Health Sciences
Norfolk, Virginia 23529-0199
(804) 683-3310

September 15, 1993

Dear Board Member:

Recently you were sent a questionnaire concerning the opinions regarding the regulation of dental hygienists and disciplinary sanctions against dental hygienist in legal jurisdictions with and without dental hygiene self-regulation in the United States and Canada. I have not yet received your response to the questionnaire. In order for this survey to be representative of the population, it is essential that I receive as many responses as possible. This study is a graduate research project which I am conducting to obtain data that could be used in regulating the practice of dental hygiene.

The questionnaire should take approximately 15 minutes to complete. Each question should be answered honestly and accurately. Please comment on any responses you feel need clarification or any questions that seem unclear. You may use the back of the questionnaire if you need extra room.

Please complete the enclosed questionnaire and return it in the postage paid envelope by September 30, 1993. The postcard included in this packet should be returned separately from the survey to insure confidentiality and anonymonity of your responses. All results from this study will be reported in group form only.

Results of this study will be available in December, 1993. If you are interested in the outcome of this study, please send your request to the address listed below.

Thank you in advance for your time and participation.

Sincerely,

Jodie A. Mueller, RDH, BS
Masters Degree Candidate

Old Dominion University
School of Dental Hygiene
Norfolk, VA 23529-0499