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Office Leadership

Professional Role Satisfaction

Geriatric Access to Oral Health Care

Continuing Education

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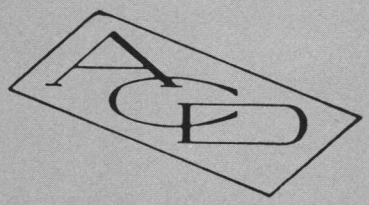

NEWS AND COMMENT

SECTION NEWS

Texas Section

The Texas Section and the Baylor College of Dentistry presented the third annual American College of Dentists Continuing Dental Education program on September 13, 1980 in Dallas. The clinicians, all members of the Baylor faculty, and their topics were as follows:

Contemporary Drug Use in Dentistry—Thomas W. Gage, Professor and Chairman of Pharmacology

Current Concepts in Restorative Dentistry—Jesse T. Bullard, Professor and Chairman of Operative Dentistry

Optimum Dentistry—Interdisciplinary Approach—C. Moody, Alexander, Professor and Chairman of Orthodontics

Anatomy of Local Anesthesia—Patricia L. Blanton, Professor of Gross Anatomy

Richard E. Bradley, newly appointed Dean of Baylor, brought greetings to the assembled participants in the program which was open to all Texas dentists without any tuition charge. Gordon H. Rovelstad, president of the American College of Dentists and Executive Director—designate was also present and brought greetings.

New Jersey Section

The New Jersey Section held a ladies night and dinner on April 17th at the Sheraton Inn in East Brunswick. A large turnout enjoyed a pleasant evening of sociability and heard an interesting talk by Dr. Hirsch L. Silverman, well known psychologist, philosopher and poet.

New Section offers for this year are:

Phillip Schwartz—Chairman
Joseph Mayner—Vice Chairman
Thomas M. DeStefano—Secretary-Chairman

Nebraska Section

The annual meeting of Nebraska Section was held at the Villager Inn, Lincoln, Nebraska on Sunday, May 4, 1980 at 7:30 A.M.

Special guests were Dr. Willis Irons of Minnesota and Dr. Robert I. Kaplan, First Vice President of the A.D.A. and Editor of American College Journal.

Chairman Jim Hull opened the meeting and introduced Dr. Kaplan who brought greetings from the American College. He announced that Dr. Gordon Rovelstad will be the next Executive Director of the College.

Chairman Hull discussed the student awards and the preparation of the certificates. The awards are presented to the student selected on the basis of professionalism and who best exemplifies the principles of the American College of Dentists. The award will include a sum of $100 each which will be placed in the respective loan funds of the two Nebraska dental schools in the name of the student recipient.

The recipients this year are Mr. Eldon LeRoy Richard of the College of Dentistry, University of Nebraska, and Mr. Nicholas J. Drzycimski, Creighton University School of Dentistry. These awards were

Left to right: Section chairman Jim Hull, Dean Richard Bradley of Nebraska, Eldon Leroy Richard, Nebraska U. student award winner; Nicholas J. Drzycimski, Creighton U. student award winner; Mrs. Drzycimski, and Dean Robert Vining of Creighton University Dental School.

presented at the Recognition Luncheon of the Nebraska Dental Association.

Chairman Hull displayed the new charter presented to the Nebraska Section from the American College of Dentists. The charter is to be appropriately framed and will hang in the office of the Nebraska Dental Association.

The following are the newly elected officers of the Nebraska Section:

F. A. Pierson Jr., Chairman

Paul Wachter, Vice-Chairman

William Holthaus, Secretary-Treasurer (3 year term)

The section expressed its regret on the departure from Nebraska of Dr. Richard Bradley, Dean of the University of Nebraska College of Dentistry, who in September becomes Dean of the Baylor College of Dentistry.

Carolinas Section

The Carolinas Section held a luncheon meeting at the Hyatt Hotel in Winston-Salem, North Carolina on Sunday, May 11, 1980.

Chairman James Harrell, Sr. called the meeting to order. Some 49 members and wives and six guests were present.

Dr. Russell Edward Martin, recently graduated student of the School of Dentistry, University of North Carolina, was presented with the first student award by the Carolinas Section "for exhibiting those qualities of leadership so admired by the dental profession." He was chosen by the awards committee at the school for his leadership ability during his four years as a student. Dr. Harrell introduced Dr. Martin's family, who were guests of the Section.

Featured speaker for the luncheon was Dr. Thomas S. Haggai. Dr. Haggai is an internationally-known speaker, widely acclaimed throughout the country and abroad. He was introduced by Charles W. Horton, vice-chairman of the Section.

Dr. Haggai spoke of the problems facing the free enterprise system and the private practice of dentistry in the United States during recent years. His presentation was extremely interesting and most provocative.

Following Dr. Haggai's presentation, Dr. Harrell announced that our next meeting will be held in Charleston, S. C. in February 1981, and urged all members to attend.

Western Pennsylvania Section

On May 12th the Western Pennsylvania Section hosted a breakfast meeting for all Pennsylvania fellows and their guests during the Pennsylvania Dental Association meeting at the Marriott Hotel in Pittsburgh.

I. Lawrence Kerr, president of the American Dental Association, gave an inspiring talk on "The Future of Dentistry." Lois F. Weinstein received the Section's award in recognition of her exemplification of the principles of the American College of Dentists while a student at the School of Dental Medicine, University of Pittsburgh.

On June 12th, the Section held an all day meeting at the Holiday Inn at Wexford, Pennsylvania. Gordon H. Rovelstad, president of the college, was the featured speaker. His subject was "The College and its role in the maintaining professionalism." The theme of the day was "The Profession Under Siege." Edward J. Forrest, Dean of the

Left to right: Ruth S. Friedman, Western Pennsylvania Section secretary-treasurer; William B. Trice, President, Pennsylvania Dental Association; John L. Bomba, Fourth ADA district trustee; I. Lawrence Kerr, president of the American Dental Association; Lois F. Weinstein, award recipient; George P. Boucek, Section President and Milton E. Nicholson, Sr., Section historian.

(Continued on page 253)

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A QUARTERLY PRESENTING IDEAS IN DENTISTRY

ROBERT I. KAPLAN, *Editor*
122 Society Hill
Cherry Hill, New Jersey 08003

OCTOBER 1980

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CONTENTS

BERTRAM W. TREMAYNE, JR.
Convocation Speaker

Bertram W. Tremayne, Jr. to Speak at Convocation

A prominent St. Louis area attorney, Mr. Bertram W. Tremayne, Jr. will be the speaker at this year's Convocation of the College in New Orleans. Mr. Tremayne, whose office is in Clayton, Missouri is the senior member of the firm of Tremayne, Lay, Carr and Bauer, and has served the College as its legal counsel.

A graduate of Washington University in St. Louis with the degree of Doctor of Jurisprudence, he is a member and Fellow of the American Bar Association, past-president and member of the Board of Governors of the Missouri Bar, and holds memberships in the Metropolitan Bar Association of St. Louis, the St. Louis County Bar Association and the American Judicature Society. He is a past president of the Washington University Law Alumni Association and a former national director of the Judge Advocates Association.

From time to time, Mr. Tremayne has written articles and lectured on wills, estate planning, trusts, estate administration, taxation, anti-trust and family law.

He saw military service in World War II, beginning as a private in the Air Force and advancing to Captain in the Judge Advocate General's Department. As an Army Reserve Officer he held the rank of Major.

Mr. Tremayne is affiliated with the First Congregational Church of Webster Groves and is past president of the congregation. He served on the Board of Trustees of Washington University, the executive committee of the Washington University Alumni Board of Governors and was chairman of the Washington University Deferred Giving Committee.

He is a past president and a member of the Board of Governors of the Metropolitan St. Louis YMCA and served on the National Council of YMCAs. Mr. Tremayne is also a trustee and executive committee member of Deaconess Hospital of St. Louis.

He served as chairman of the St. Louis County Parks and Recreation Advisory Board and is the recipient of the Distinguished Eagle Scout Award from the National Council of Boys Scouts of America.

The College is privileged and pleased to have so eminent a civic leader as Mr. Bertram W. Tremayne, Jr. as its Convocation speaker.

The Editor's Farewell

With the publication of this issue, the Editor's eleven year tenure of office comes to a close. He steps down from the position with mixed feelings of pleasure and sadness. He has enjoyed the challenge of putting together the Journal each quarter and takes pleasure and no little pride in the considerable body of dental literature presented over the years. The high quality of the papers, articles and addresses printed came from some of the best minds in dentistry. The Journal has also reflected the interests and activities of the leading honorary organization in the dental world, and spoken out often for the maintenance of high standards of professional conduct. At times it seemed that the Journal was a voice crying in a wilderness of apathy. Now, in these times of commercial inroads into the profession, when advertising grows more common, and the practice of dentistry becomes more of a business enterprise and less like a profession, it appears that the American College of Dentists may be the last bastion of professionalism.

These changes are cause for concern by every Fellow of the College, and the Editor's feeling of sadness lies in the recognition that things will probably get worse rather than better; that the voice of the College, unless it becomes much louder than at present, stands little chance of being widely heard.

The Editor finds other causes for sadness in no longer having the privilege of working closely with the dedicated Fellows who are the Officers and Regents of the College. He will miss the interaction of the Board meetings as difficult decisions were hammered out. He will miss his participation in the Convocation ceremonies, he will miss the good fellowship that went with service to the College, but he will look back with the satisfaction a craftsman takes in his handiwork as he lays down his tools at the close of day.

There will be no more deadlines to meet, no more late nights reading manuscripts, pasting up galleys or trying to fit too much material into not enough space. Someone else will now have these responsibilities.

At the 1980 annual meeting the Board will appoint a successor—a younger person with editorial background and experience who will bring to the Journal new ideas and a fresh outlook which every publication needs from time to time. Under new direction the Journal should continue to grow and flourish and be ever more useful as it offers its readers timely and significant knowledge and opinion.

R.I.K.

In a dental practice, the dentist is primarily responsible for directing and managing the activities of the auxiliary personnel. In this paper, several approaches to leadership are examined and examples showing how these approaches may be applied by dentists are presented. It is suggested that the contingency approach to leadership which focuses on situational variables may be well suited to the management of a dental office.

The Office Leadership Function of the Dentist:

Approaches and Applications

JAMES P. SCHEETZ, Ph.D.
STEPHEN M. FELDMAN, D.D.S., M.S.Ed

Leadership may be defined as a process of influencing people to strive willingly to achieve group objectives. Every work group including dental practices in which auxiliaries are employed, needs direction or leadership in order to achieve the goals of the organization. For a dental practice, these goals might include providing high quality, comprehensive patient care in the most efficient manner possible. The leadership function should, therefore, be of interest to any dentist who supervises the activities of auxiliaries.

Many people have attempted to determine what makes a person an effective leader, believing that only those who possessed the necessary qualities would be successful in leadership roles. Recent developments have indicated, however, that leadership skills can be acquired by people lacking in leadership ability. The purpose of this paper is to explore some current approaches to leadership and show how these may be applied by the dentist in private practice.

Dr. Scheetz is associate professor and Dr. Feldman is assistant professor of Community Dentistry at the University of Louisville School of Dentistry, Louisville, Kentucky.

HISTORICAL BACKGROUND

One of the earliest leadership theorists, Frederick W. Taylor, felt that the best way to increase output was to improve the techniques and methods used by workers. His approach to leadership, formulated during the early 1900's, focused on the application of industrial engineering principles in an effort to increase productivity. This approach was usually coupled with a piece-rate system of wage payment so that the wages received by a worker were directly related to the amount of work performed. The underlying assumption was that people are motivated only by economic rewards. At first glance, it may appear that Taylor's system is quite workable and simple to administer. But the scientific approach to management ignored the human factor and concentrated on the standardization and efficient design of jobs. It was assumed that a person could work more efficiently when physically separated from other people. Most people, however, find it difficult to work in a setting isolated from others. Further, it would be virtually impossible, and obviously undesirable, for the employees in a dental office to perform their duties while having no contact with other members of the office staff. The piece-rate payment system did not motivate people in the manner envisioned by Taylor.

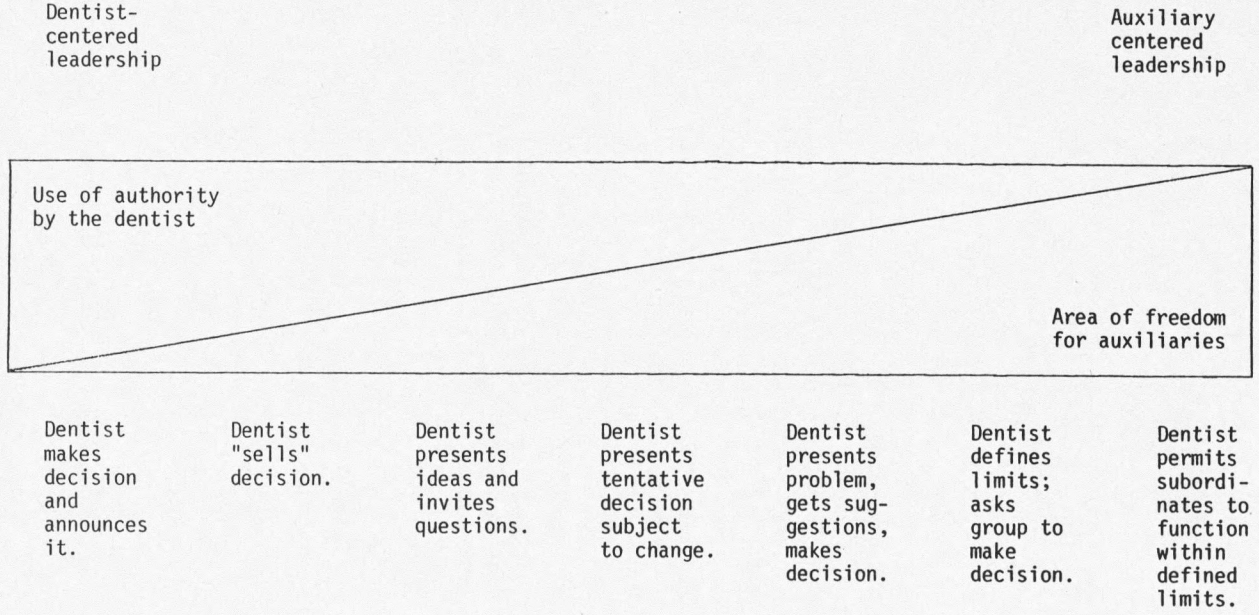
Subsequent studies of the leadership function stressed a concern for interpersonal relationships in the work setting. The human relations theorists argued that in addition to finding the best technological methods of doing a job, it was beneficial for leaders to be concerned with interpersonal relations because of the effect on productivity. The function of the leader under human relations theory was to promote cooperative goal attainment among employees while providing opportunities for their personal growth and development. The main focus of the leader, contrary to scientific management theory, was on the needs of individuals rather than the needs or goals of the organization.

In the next section of the paper, three current models of leader behavior will be reviewed as they relate to the operation of a dental practice: the behavioral model, the normative model, and the contingency model.

CURRENT APPROACHES TO LEADERSHIP

Behavioral Model

This model focuses on the means by which a leader influences the activities of subordinates. The behavior of the leader is shown on a continuum (see Figure 1) with authoritarian and democratic leader-



Adapted from: Tannenbaum, R. and W. Schmidt, "How to Choose a Leadership Pattern," Harvard Business Review, 1973, 51, p. 164.

Figure 1

The Leadership Continuum

ship styles at opposite ends of the continuum. The actions on the left permit subordinates to exercise little freedom and imply a high degree of control by the leader while those on the right allow subordinates much freedom with the leader exercising a lesser degree of control.

An examination and explanation of each point along the continuum will be used to show how a dentist's behavior might change as the leadership style changes from dentist-centered to auxiliary-centered.

The Dentist Makes the Decision and Announces It.

Suppose, for example, that patient cancellations have resulted in a decline in net income for the past month. Dr. Stevens has decided that something must be done about this problem. After considering the alternatives, Dr. Stevens informs the staff that the receptionist must call all patients one day prior to their appointment to remind them of the scheduled visit to the dentist. In this situation, the feelings of the staff were not considered and they were not consulted regarding the decision to remind patients of their appointments.

The Dentist "Sells" the Decision.

In this setting, as in the previous one, the dentist assumes responsibility for identifying the problem and deciding how to solve it. However, rather than simply announcing that the receptionist will contact all patients as a reminder, Dr. Stevens also attempted to persuade the office personnel that the decision will benefit everyone in the office by hinting that increased patient volume might lead to higher salaries. The purpose of showing everyone the potential advantage of this decision is to reduce resistance to the change which may occur among the staff personnel.

The Dentist Presents Ideas and Invites Questions.

This style of behavior characterizes the dentist who has made a decision, but provides an opportunity for the auxiliaries to ask questions so they will understand what the dentist is trying to accomplish. Even though it may appear to the auxiliaries that they are influencing the dentist's decision, in actuality the dentist is not influenced by their opinions even though this may appear to be occurring. In the case of Dr. Stevens, discussions during staff meetings revealed that some patients forgot about their appointments. At the next staff meeting, Dr. Stevens presented reasons for and answered questions regarding the decision to have the receptionist call patients the day before their appointment.

The Dentist Presents a Tentative Decision Subject to Change.

In this situation subordinates may have some influence on the decision. The dentist, however, would identify the problem and present a proposed solution. In the example cited above, Dr. Stevens, would solicit the opinions of staff personnel regarding the decision to call patients to remind them of their appointment, but the final decision would be made by him (or her).

The Dentist Presents the Problem, Gets Suggestions, and Then Makes a Decision.

The previous approaches have involved the dentist presenting a solution to the group. In this setting, the dentist identifies the problem but the auxiliaries present proposed solutions. For example, the dentist might explain that he or she is concerned about declining income due to patient cancellations. Solutions to the problem would then be proposed by the auxiliary personnel. After considering the proposed solutions, the dentist would choose the one he or she believed would work best.

The Dentist Defines the Limits and Requests the Group to Make a Decision.

In this situation, the dentist allows the group to make decisions after identifying the problem and setting the limits of possible behavior. In the example previously cited, Dr. Stevens may tell the staff that patients must be contacted by phone to remind them of their appointment. However, the group may be allowed to decide how far in advance to contact the patients. In addition, it may be left up to the group to decide who will call the patients. Perhaps all auxiliaries will be involved in contacting patients.

The Dentist Permits the Group to Make Decisions within Prescribed Limits.

This situation represents almost complete freedom for the group to make a decision. The group is also responsible for identifying and defining the problem. Dr. Stevens may request that some action be taken (setting the limits) to remedy the problem of patients missing their appointments. The group might then decide whether to contact the patients by phone or to use some other means such as a post card; the group would also decide how far in advance to notify the patients and specify who would be responsible for doing this. Dr. Stevens would then abide by the group decision.

Which style of leadership is most appropriate for a dental practice? This is a difficult question to answer. The variables which will influence

this decision involve the personality, experience and ability of the dentist, the personalities, experience and ability of the auxiliaries, and the nature of the practice. The dentist who has confidence in the abilities and judgement of the auxiliaries may employ a style shown at the right of the continuum shown in Figure 1 whereas the dentist who judges the auxiliary personnel to be incapable of reaching suitable decisions may delegate very few of these functions to the staff personnel. The value system of the dentist may also affect the choice of a leadership style. If a dentist believes that auxiliary personnel should have a voice in how the practice is managed, and can be of assistance in managing, it is likely that responsibilities will be delegated to them.

In addition to considering his or her own beliefs and feelings, the dentist should also consider the feelings and beliefs of the auxiliaries when choosing a leadership pattern. Among these are the needs of the auxiliaries for independence versus the need for being given specific directions, their understanding of the goals and objectives of the practice, and their desire to participate in the decision making process.

Situational factors may also influence the choice of a leadership style. These include the number of auxiliaries employed by the dentist, the emphasis or specialty which may limit the scope of the practice, the nature of the problem to be solved, and the effectiveness of the auxiliaries in working together as a unit.

These are factors related to the personalities of the dentist and the auxiliaries as well as situational factors which affect the choice of a leadership pattern. As the dentist deals with problems, the most effective style of leadership may change. Thus, the dentist has the opportunity to choose different leadership styles for solving various problems.

Normative Models

A normative model of leadership is one which attempts to specify one best approach for acting as a leader. Two normative models will be reviewed in this section. The first is related to the Managerial Grid of Blake and Mouton[2] and the second focuses on the Management Systems developed by Likert[3].

THE MANAGERIAL GRID

The Managerial Grid approach to leadership focuses on two variables: task accomplishment and interpersonal relations. The relationship between these two factors is shown in Figure 2.

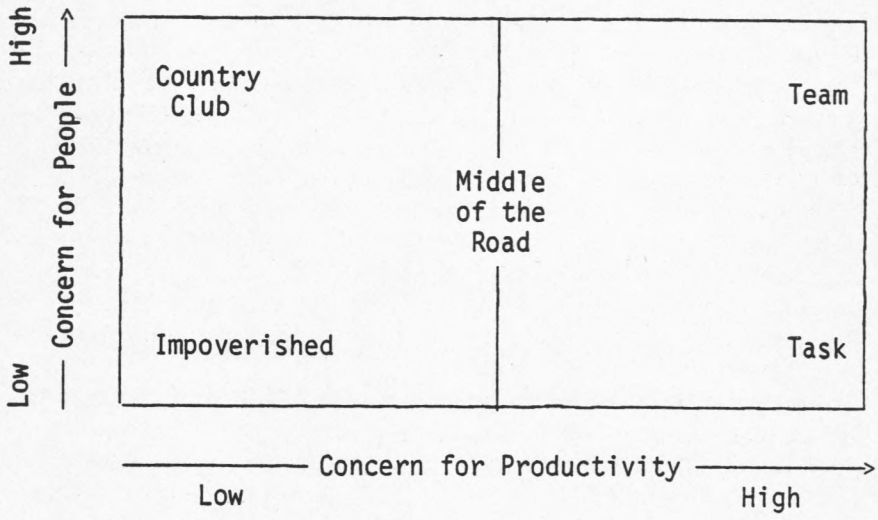


Figure 2

Managerial Grid Leadership Styles

Concern for productivity increases from left to right along the horizontal axis and increasing concern for employees and interpersonal relations is shown by moving up the vertical axis.

The five Managerial Grid leadership styles as applied to dentistry are:

IMPOVERISHED—In a dental practice, this style would be characterized by the dentist who would allow an auxiliary to run the practice. In effect, the dentist would not be functioning as a leader.

COUNTRY CLUB—This style implies a high concern for the feelings and attitudes of the auxiliary personnel with little concern for the volume of patients seen by the practice.

TASK-This style represents an autocratic approach to managing auxiliary personnel with maximum concern for seeing a high volume of patients.

MIDDLE-OF-THE-ROAD—Survival of a dental practice is possible through showing moderate concern for both people and productivity. However, the dentist does not display the maximum possible concern for interpersonal relationships or productivity.

TEAM—This style represents a commitment by the auxiliary personnel to achieve the goals and objectives of the practice due to the trust and respect which the dentist and the staff have for each other.

The Managerial Grid approach underscores the importance of developing harmonious relationships between the dentist and the staff personnel in addition to focusing on the necessity for providing high quality patient care. Concentrating on one while ignoring the other may result in a floundering practice. Blake and Mouton encourage all leaders to strive for the Team approach in functioning as a leader. If this style of leadership can be achieved, the dentist should view his or her leadership role as rewarding and fulfilling.

MANAGEMENT SYSTEMS

The Management Systems[3,4] approach to analyzing leader behavior places primary emphasis on the behavior of the leader with less emphasis being placed on the task to be performed and the characteristics of subordinates. The four systems which comprise this model of leader behavior range from a task-oriented, highly authoritarian style, denoted as System 1, to a relationship-oriented style designated as System 4. Systems 2 and 3 are intermediate between these two extremes. The four systems can be described as follows.

SYSTEM 1:

The dentist is viewed as having no confidence or trust in the auxiliary personnel. The auxiliaries are motivated by use of punishment, threats and fear. If interaction occurs between the dentist and the staff, the staff usually view it as an attempt by the dentist to manipulate their behavior. Virtually all decisions are made by the dentist with no input from any of the office personnel. The dentist exercises complete control over the activities of the auxiliaries. At all times the goals of the auxiliaries are in direct opposition to those of the dentist. For example, the dentist may require the auxiliaries to be busy at all times, but the goal of the auxiliaries may be to do as little work as possible.

SYSTEM 2:

In this setting, the dentist may express minimal confidence and trust in the staff personnel. Most of the decisions are made by and goals for the practice are established by the dentist, but some relatively inconsequential decisions may be made by the auxiliaries. The staff is motivated by rewards and actual or potential punishment, but it is assumed that no motivation comes from within the individual. The

goals of the auxiliaries usually do not coincide with goals established by the dentist.

SYSTEM 3:

The dentist has substantial but not complete trust and confidence in the auxiliary personnel. Many of the decisions affecting office operating procedures may be made by the staff within the limits prescribed by the dentist. A combination of rewards, punishment and involvement in decision making are used to motivate the office staff. The dentist exercises rather loose control over the staff and attempts to instill in the staff a sense of responsibility for their actions. The goals of the auxiliaries may either coincide with or oppose those of the dentist.

SYSTEM 4:

The dentist has complete confidence and trust in the auxiliary personnel. The staff is encouraged by the dentist to make any decisions which they feel confident to make and the dentist may or may not review the decisions. Office personnel are motivated by participation in all aspects of operating the practice and also by setting goals, devising improved methods for running the office, and evaluating progress in achieving goals. The objectives and goals of the auxiliaries coincide with those of the dentist.

What does the systems approach to management suggest with regard to operating a dental practice? The available evidence indicates that the closer the leadership style of the dentist approaches System 4, the higher will be productivity. According to this model, the dentist should seek to involve the office personnel to the maximum possible degree in managing the practice.

Up to this point, a behavioral model and two normative models of leadership have been reviewed. The main focus of the behavioral model was the interaction which occurred between the dentist and the office personnel with the degree of freedom of the staff in managing certain aspects of the practice varying along a continuum. The normative models stressed one best way of functioning as a leader. The Managerial Grid concept is a two dimensional model stressing concern for relationships and concern for productivity. The Management Systems approach highlighted the value of human resources to the organization. The remaining part of this paper will be devoted to a review of contingency theories of leadership.

CONTINGENCY MODELS

The contingency approach questions the existence of one best style of leadership. Instead, it is postulated that the most effective style of leadership is dependent upon the situation and may vary as elements of the situation change.

Fiedler's Contingency Model

According to this model[5], there are three situational elements which influence the most effective leadership style: leader-member relations, task structure, and position power.

A. *LEADER-MEMBER RELATIONS*—In a small group such as a dental practice, the interpersonal relationship between the dentist and the auxiliary personnel will be extremely important in determining the influence of the dentist in achieving goals of the practice. If the dentist has a harmonious relationship with the office staff, they will be more willing to accept his or her decisions and the situation will be favorable for the dentist. Conversely, if a poor relationship exists between the dentist and the auxiliary personnel, they may oppose decisions made by the dentist which results in an unfavorable position for the dentist in functioning as a leader.

B. *TASK STRUCTURE*—Task structure is defined as the degree to which a task is structured and unambiguous. In a dental practice, the task of providing patient care is relatively highly structured in that once the diagnosis and treatment plan have been completed by the dentist, the role of the auxiliaries is usually fairly clear. In this type of situation in which there is little ambiguity, the dentist can focus on the task and interpersonal relationships will be unlikely to interfere with patient treatment. The dentist who operates in an environment with a highly structured set of tasks faces a favorable situation. A task with little or no structure, such as research related to the development of new dental materials, may result in the leader having little or no more relevant knowledge than do subordinates. In this type of situation, the motivation of subordinates by the leader is more important that the exercise of authority and the leader must focus on developing satisfying interpersonal relationships as a means of achieving goals.

C. *POSITION POWER*—The right of a leader to exercise control over the activities of others derives to a leader by virtue of his or her position in the organization. In a dental practice, the dentist can exercise a high degree of position power.

The three variables related to situational favorableness are shown in Figure 3. In a dental practice, the task (i.e., providing patient care) is most likely to be highly structured and the position power of the dentist is likely to be strong. The only variable of the three which cannot be logically specified for a dental practice is leader-member relations. The most effective leadership style is shown in the top row of Figure 3. For example, this indicates that if the position power of the dentist is strong, the task is highly structured, and the dentist has established good relations with the auxiliary personnel (Situation 1), a task oriented leadership style will be most effective in achieving the goals of the practice. On the other hand, if the position power of the dentist is strong and the task is highly structured, but a poor relationship exists between the dentist and the office staff (Situation 5 of Figure 3), the dentist should be more relationship oriented vis-a-vis the office staff. This model highlights the necessity for the dentist to assess the relationship which exists between himself or herself and the office personnel when selecting and implementing a leadership style.

Path-Goal Model

The path-goal model,[6,7] derived from the expectancy theory of motivation, is so-called because the primary focus is on how the leader influences (1) the subordinates' attainment of both work and personal goals and (2) the paths to goal attainment. Essentially, the function of the leader is to facilitate goal attainment by subordinates and clarify the means of obtaining these goals.

According to this model, two contingency variables determine the most effective leadership style. The first of these is characteristic of subordinates. The available evidence[8] indicates that subordinates who believe their behavior determines what happens to them prefer a participative style of leadership. Those subordinates who feel that what happens to them occurs because of luck or chance prefer a more directive leadership style. In addition, subordinates who perceive themselves as possessing a high degree of ability view directive leadership as excessively close control over their activities. In a dental office, the dentist would need to assess the degree of control which the auxiliaries feel they have over what happens to them in their lives. Many times this type of information can be obtained through informal discussions. The dentist also needs to assess the auxiliaries' perception of their ability to successfully complete the tasks assigned to them.

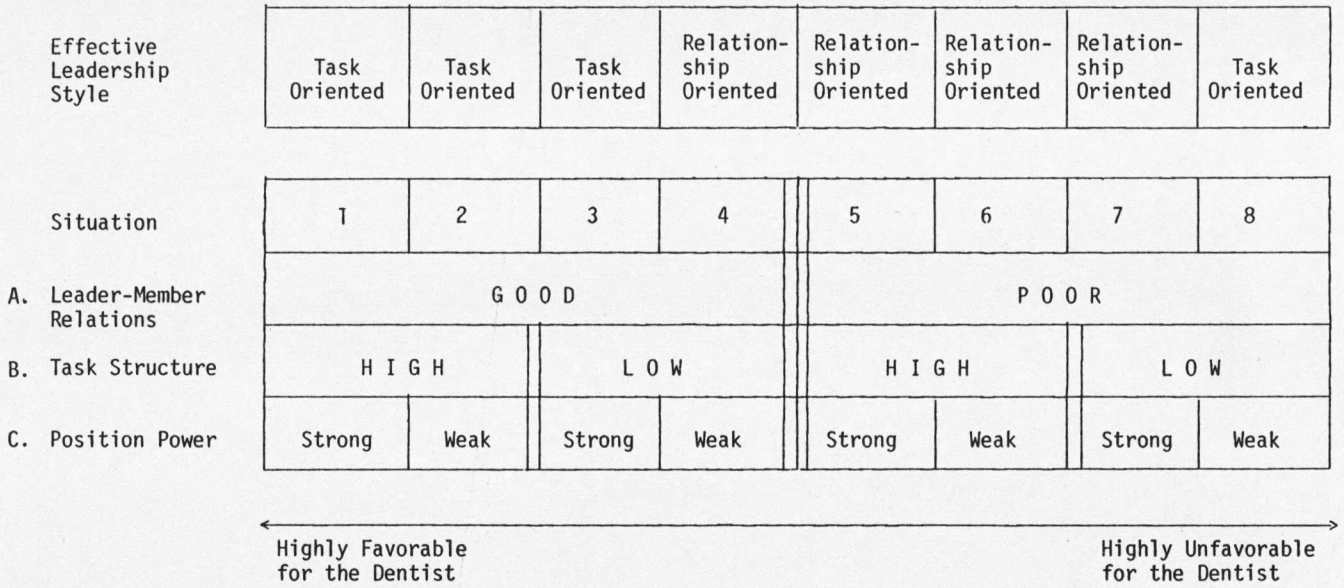


Figure 3

The Fiedler Contingency Model of Leadership Effectiveness
Source: Adapted From Fiedler, p. 146.

The second contingency variable relates to the task structure. When subordinates are performing relatively routine tasks, attempts by the leader to direct their efforts are likely to be viewed as an exertion of unnecessarily close control and may arouse feelings of resentment. It has been postulated earlier in this paper that most tasks performed by dental auxiliaries are highly structured with the auxiliaries exercising little control over how the tasks are to be done. On the other hand, when tasks are more complex and varied, a more directive leadership style is appropriate since it helps the individual cope with task uncertainty. For the dental auxiliary who is presenting oral hygiene instructions to a patient for the first time, explicit directions from the dentist may be appreciated since the auxiliary may not be proficient at doing this task.

After the dentist has assessed the two contingency variables, the most appropriate leadership style should be implemented. Four styles are associated with the path-goal model: the directive leader plans the activities of subordinates and gives specific directions for accomplishing a task; the supportive leader is a friendly, approachable individual who is concerned with the well being of subordinates; the participative leader shares information with subordinates and is influenced by their values and ideas; the achievement oriented leader sets challenging goals and expects outstanding performance from subordinates.

The most appropriate leadership style as moderated by the contingency variables has been alluded to, but has not been made specific. For purposes of discussion, the supportive and participative leadership styles may be considered to be auxiliary centered since both involve a relatively high degree of auxiliary participation in managing the dental office. The directive and achievement oriented styles may be characterized as dentist centered since these styles involve relatively little influence by the auxiliaries (see Figure 4).

It was postulated previously in this paper that the large majority of tasks which dental auxiliaries perform are of a routine nature. The same assumption will be made with regard to the path-goal model of leadership. Therefore, the theory would suggest that auxiliary centered leadership would be most appropriate. This conclusion would be true if the only contingency variable to be considered was task structure. However, in a dental practice where the health and well-being of the patient may be affected by the actions of the auxiliaries, the ability level of the particular auxiliary may be an over-riding consideration which influences whether the dentist is highly directive or relatively non-directive when dealing with that auxiliary. These

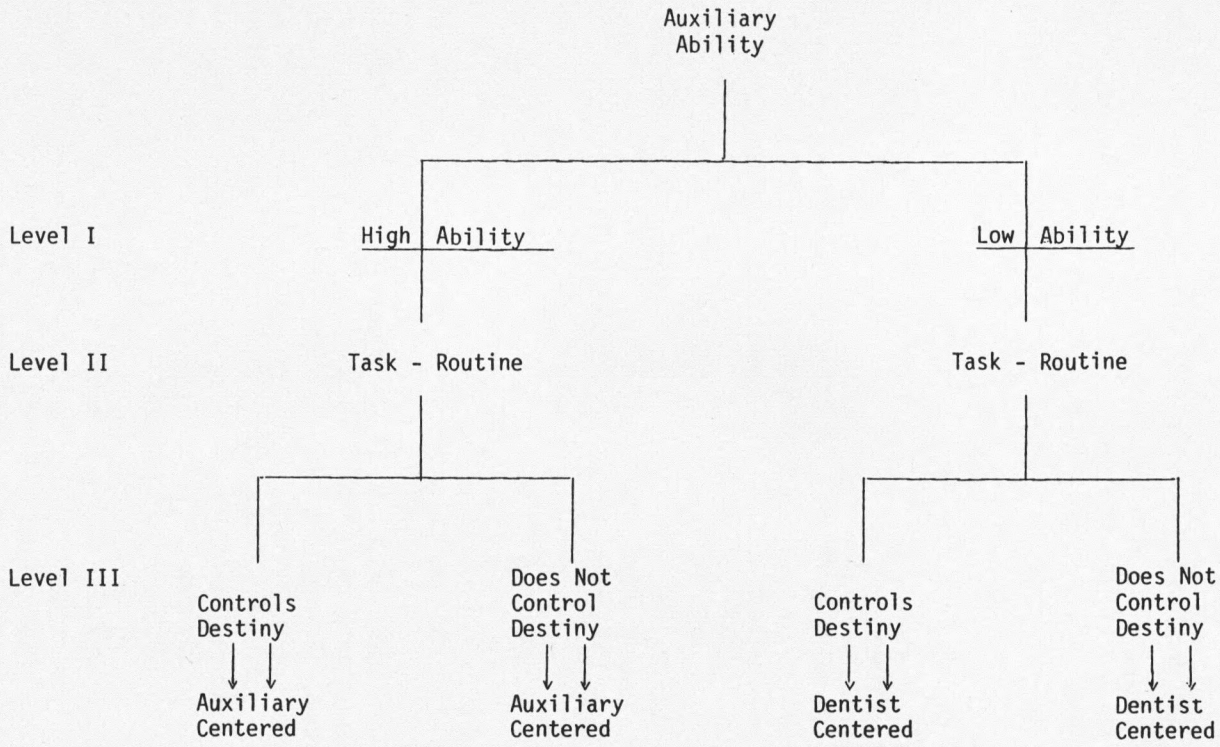


Figure 4

The Path-Goal Model of Leadership

conclusions coupled with the knowledge that individuals who feel they control their own destiny prefer auxiliary centered leadership and those who attribute their destiny to luck or chance prefer dentist centered leadership result in the relationships presented in Figure 4.

Referring to Level I of this diagram, a judgment by the dentist that an auxiliary possesses relatively low ability dictates the need for dentist centered leadership even though the task may be routine and the auxiliary feels that he or she controls his or her destiny. If the auxiliary is judged to be of high ability and feels responsible for his or her destiny, auxiliary centered leadership would be most effective. The only situation where the most appropriate style is not clear occurs with the high ability auxiliary performing a routine set of tasks who does not feel responsible for his or her destiny. There is no research evidence upon which to base a solution to this situation. However, the relatively high resistance of subordinates to close supervision when performing routine tasks suggests that dentist centered supervision would be regarded as unnecessary and threatening to the auxiliary.

The path-goal theory of leadership focuses on subordinate characteristics and task structure as contingency variables. For the low ability auxiliary, the welfare of the patient mandates a dentist centered style of leadership. When supervising auxiliaries of superior ability, auxiliary centered leadership will probably be more appropriate.

SUMMARY

In this paper, five approaches to leadership have been reviewed. The first, a behavioral model which postulated a continuum of leader behaviors, focused primarily on the behavior of the leader in influencing the actions of subordinates. The next two models based on the Managerial Grid concept and the Management Systems concept were termed normative models of leadership because they both present one best way for a leader to function. The Managerial Grid stresses attention to both productivity and the feelings of subordinates. The Management Systems approach concentrates on the interaction between a leader and subordinates. The last two models are called contingency models because it is hypothesized that the most effective leadership style is determined in part by situational variables. Fiedler's model takes into account the relationship which exists between the leader and subordinates, the routineness of the work to be done, and the power which the leader has over subordinates. After assessing these situational variables, the leader

can then determine the most effective leadership style for a given situation. House's path-goal theory of leadership considers the characteristics of subordinates and the task structure as contingency variables. The leader's assessment of these variables then suggests the most effective leadership style for a given situation.

Which, if any, of these approaches is most applicable in a dental practice? At the present time the contingency models are the most generally accepted approaches to leadership because they take into account variables which are not considered by the other models. They also suggest that the same style of leadership is not appropriate in every situation. These models also imply that leadership is a more complex phenomenon than do the other leadership models.

The thesis of this paper is that contingency approaches to leadership will be most effective in a dental practice. Since the dentist works in close proximity to the staff personnel, it would be virtually impossible for him or her not to be aware of the atmosphere which exists in the office. The task structure of the duties assigned to dental auxiliaries is fairly routine and the dentist should be aware of this fact. After assessing the contingency variables, the dentist can then decide whether the most effective leadership style for a given situation would involve a task oriented style or whether the main emphasis should be directed toward the working relationship between the dentist and the auxiliary personnel.

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(Continued on page 229)

Professional Role Satisfactions of Dentists: Some Cross-Cultural Comparisons

BRUCE P. MURRAY, PH.D.

In the view of the public, dentistry has consistently ranked low with respect to status vis-a-vis other high status professional vocations. Surveys conducted between 1947 and 1973 indicated a steady increase in the rankings, however.[1] A 1947 National Opinion Research Center survey disclosed that dentists were rated sixth behind physicians, professors, bankers, clergymen, and lawyers.[2] In 1961 American high school students rated dentists in the middle third of nine professions.[3] By 1963 dentists had risen above bankers and clergymen in terms of public esteem.[4] More recently (1971) an opinion poll of mostly middle-class Americans showed dentists to be rated behind physicians and clergymen.[5] Regardless of the trend, the status ascribed to dentists still remains below that ascribed to physicians.

Dworkin, et al.,[6] attribute the lack of public empathy with dentists to three factors: (1) the apparent general insensitivity of the profession to the feelings of the public; (2) the role played by the mass media in promoting images of the dentist as a buffoon or as a nonhero (reinforced by dentists' conspicuous absence from newspaper lists of members of citizens' committees and community projects); and, (3) an "identity crisis" resulting, in part, from the discrepancy between the perceived role and the actual status of the dentist (the public still views dentists in a narrow, traditional role).

With reference to the recruitment of prospective dentists. Gray[7] contends that the image of dentistry held by high school students is in need of change if the profession is to attract quality students. Given the fact that the dental profession is secondary to medicine in terms of public acceptance as a healing profession, and in view of the projected manpower shortages,[8] the development of further information con-

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cerning dentists' attitudes toward their profession and their involvement in voluntary social organizations is deemed crucial to the future growth of dentistry. Dental practitioners' attitudes and opinions about their own profession are likely to be more accurate and less distorted than those of the general public. In my opinion, prospective dentists should carefully evaluate and scrutinize the views of the former rather than the latter.

JOB SATISFACTIONS OF DENTISTS

A review of the relevant literature shows an increase, in recent years, of research efforts dealing with the subject of job satisfaction in dentistry.

O'Shea[9] reported that in a 1947 national survey, 44 percent of the responding dentists, when queried about satisfaction with their career, answered: "It's the only career that could really satisfy me." The remaining 56 percent mentioned medicine as an alternative career.

In South Wales, Eccles and Powell[10] found that 60 percent of 231 dentists surveyed expressed a liking for their vocation and only 19 percent disliked it.

A survey by Page and Slack,[11] of 358 (out of 600) dental graduates from the London Hospital Medical College, demonstrated in general terms that those surveyed ". . . made a free choice of their profession, would choose dentistry again if they had the choice, liked their job, but worried about it moderately."

Another summary provided by Katz and Kahn[12] (derived from information contained in a table compiled by Gurin, et al., in 1960) illustrates that it is professionals who have the largest percentage in the "very satisfied" category in regard to job satisfaction.

In one of the first American studies, Howell, et al.,[13] reported that federally employed dentists find satisfaction through pleasantness of the working conditions, economic security, challenge of the work, social consciousness, and responsibility.

A 1973 survey[14] of 40 Hartford, Connecticut dentists revealed that the majority were satisfied with their profession (92 percent had scores of over 75 on a 100-point scale). Using the same instrument, the investigators also found, in a later statewide survey[15] of 138 Connecticut dentists, that "dentists are generally satisfied with private practice." Those highly satisfied were "involved more extensively in non-practice professional activities, utilized more auxiliaries, had more patient visits, spent more time on prosthetics than operative dentistry, and had above average incomes."

Three other studies have also been reported. In the first, Overstreet et al.,[16] surveyed 45 urban and 45 rural dentists in Alabama and found that the former reported significantly greater job satisfaction than the latter in two areas, work and pay. The second study was conducted by myself and a colleague.[17] It consisted of a survey of 253 dentists from urban and rural practice locales in Utah. The findings showed that the majority (90.0 percent) were satisfied with their professional role and that their satisfaction levels were negligibly affected by age, years practicing, and practice locale. In addition, a smaller percentage of dentists in the sample reported no social participation in community or city affairs than did professionals on a national scale; social participation did not appear to affect role satisfaction appreciably. In the third study, Burge, et al.,[18] administered the Porter Job Satisfaction Scale to 423 dentists as part of the health screening services at the 1975 Annual Meeting of the American Dental Association. In general, a high level of satisfaction with dental practice was reported—specifically with job security and authority in position. Lowest satisfaction was reported for "feeling of accomplishment, self-fulfillment, and helping people."

PURPOSE OF THE STUDY

The purpose of the research now reported is to replicate the aforementioned Utah study. It will also serve to correct some erroneous data reported in the earlier study. A major limitation of that study was a failure to sample individuals who were *not* affiliated with The Church of Jesus Christ of Latter-Day Saints (Mormons). Widdison and Skipper[19] have demonstrated that Mormon dental students are distinctive from non-Mormon dental students. The former are more likely to list the desire to serve and help others as one of the important features which attracted them to the profession (corresponds with the service orientation of missionary work). A carryover of these distinctions into private practice could produce differences in role satisfactions. It was not possible in the previous study to isolate the religious variable and to account for its influence. This study will partially accomplish this task.

The research objectives are: (1) to determine if there are any detectable differences in reported role satisfactions of dentists from two different cultural areas; (2) to determine how socially active dentists from two different cultural areas are in community or city organizations; and, (3) to see how role satisfactions of dentists from two different cultural areas vary with age, years practicing, practice locale (urban-rural), and amount of social participation. Comparisons

will be made upon the basis of 1972 data furnished by Utah dentists and 1978 data furnished by Kentucky dentists.

The dependent variable is professional role satisfaction. The independent variables are various items posited as having a relationship with role satisfaction. The following hypothesized relationships will be analyzed:

1. Dentists' professional role satisfaction will vary directly with their ages.
2. Dentists' professional role satisfaction will vary directly with the number of years they have been practicing.
3. Dentists' professional role satisfaction will vary directly with their amount of involvement in community or city social organizations.
4. Dentists' professional role satisfaction will vary with their practice locales (urban-rural).

METHODS

Data for this study were gathered from two different cultural areas, Utah and Kentucky. The Mormon Church is dominant in Utah where norms generally tend to be extremely conservative, and where religion is a motivating force in the lives of most people. The State of Kentucky may be more typical of the United States as a whole in displaying more liberal attitudes. (At least it is more heterogeneous than Utah in terms of religious denominations). Kentucky has a larger population base and more practicing dentists than does Utah. In contrast, Utah has more urban than rural residents than does Kentucky. In addition, the median income/year/person and median number of years of education completed are greater in the State of Utah.

In 1972 data were gathered from a limited universe sample* of all dentists who were members of the Utah State Dental Association, and who resided in major cites located along the Wasatch Mountain Range in Utah. A small, rural limited universe sample was also drawn from communities of a centrally located county in Utah. Data were collected by questionnaires. The final sample consisted of 253 dentists out of a possible 350 (72.0 percent return).

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*A limited universe sample is a universe that is a portion of a larger, hypothetical universe consisting of all possible limited universes. For example, some of the dentists in this study constitute portions of the hypothetical universe consisting of specialists and all rural general practitioners. For a further discussion of limited and hypothetical universes, see M. J. Hagood and D. O. Price, *Statistics for* Sociologists.[20]

Data from Kentucky dentists were gathered in the Spring and Summer of 1978. A sample of 130 practicing dentists in a 13-county area representing a portion of the Bluegrass Dental Society was identified using a combination of limited universe and proportionate stratified random sampling.** Ninety-four of the 130 dentists were interviewed (72.0 percent), but only 78 of the 94 completed a questionnaire (60.0 percent return). Descriptive characteristics of the respondents from both samples are presented in Table I.

TABLE I
CHARACTERISTICS OF RESPONDENTS

Characteristic	Utah Dentists (1972 Data)		Kentucky Dentists (1978 Data)	
SEX:				
Male	253	100.0%	92	97.9%
Female	0	0.0%	2	2.1%
TOTAL	253	100.0%	94	100.0%
AGE:				
25-34 years	46	18.2%	32	34.0%
35-44 years	72	28.5%	23	24.5%
45-54 years	97	38.3%	13	13.8%
55+ years	24	9.5%	10	10.6%
No Response	14	5.5%	16	17.1%
TOTAL	253	100.0%	94	100.0%
MARITAL STATUS:				
Single	4	1.6%	4	4.2%
Married	244	96.4%	69	73.4%
Widow(er)	1	.4%	1	1.1%
Divorced	4	1.6%	4	4.2%
No Response	0	0.0%	16	17.1%
TOTAL	253	100.0%	94	100.0%
RELIGIOUS PREFERENCE:				
L.D.S. (Mormon)	220	86.9%	0	0.0%
Catholic, Protestant, or Other	33	13.1%	94	100.0%
TOTAL	253	100.0%	94	100.0%

**When there are two or more ways of classifying data, e.g., according to type of practice and geographic distribution, and it is important to insure that each category is proportionally represented in the sample, the population is subdivided into the appropriate strata and then a predetermined quota of cases is drawn at random from each substratum.[21] Such a plan is useful for obtaining a sample that will have specified characteristics in exact proportion to the way in which those same characteristics are distributed in the population.

The dependent variable, professional role satisfaction, was defined as the subjective feelings of happiness, satisfaction, and pleasure experienced by the practitioner when considering all current aspects of his/her occupational duties. Measurement of this variable was achieved with a 10-item Guttman scale. Initially 24 items were included in the scale—18 adapted from Brayfield and Rothe's[22] Index of Job Satisfaction, and 6 other items developed by the author and referring to autonomy, pain infliction, and manual dexterity. Responses were recorded on scales which included 5 alternatives ranging from "strongly agree' to "strongly disagree." Correlation analysis was used to determine if the items of the scale were related in a way which would allow them to be combined into a composite scale or index. The magnitudes of the Pearson product-moment correlation coefficients for the inter-item correlation matrix were strong enough to justify inclusion of only 10 of the items in the final scale from which satisfaction scores were derived.

Responses to the scale items were analyzed using all the major criteria of unidimensionality related to the Guttman scaling technique.[23] The coefficient of reproducibility obtained with the Utah sample was .87, and .84 with the Kentucky sample. Satisfaction scores were assigned by dichotomizing each scale item. Responses which had equal to or greater values than selected cutting points were assigned 1 point for each item "passed" and those values less than the cutting points were assigned a score of 0 for each item "failed." Possible satisfaction scores ranged from 0–10 points.

Social participation refers to the number of paid and/or voluntary membership organizations in the community or city with which the dentist affiliates (e.g., Rotary Club, Kiwanis, Lion's Club, Boy Scouts of America, etc.). Measurement of this variable was achieved with Chapin's[24] Social Participation Scale. A composite score, reflecting membership, contributions, and attendance at meetings,[25] was compiled for each respondent. For the Utah sample, the lowest score was 0, the highest was 58 and the mean score was 11. Corresponding scores for the Kentucky sample were: the lowest score was equal to 0, the highest was 75, and the mean score was 11.

Gamma and t-tests were used to statistically analyze the hypothesized relationships.

FINDINGS

As presented in Table II, 90.0 percent of the Utah dentists reported a high degree of satisfaction with their professional role, while only 5.0 percent were undecided or dissatisfied. More specifically, 63.0 percent

reported extreme satisfaction while only 27.0 percent were generally satisfied. In contrast, 66.0 percent of the Kentucky dentists were satisfied with their vocations. Seventeen percent were undecided or dissatisfied. Extreme satisfaction was reported by only 17.0 percent, while 49.0 percent were generally satisfied.

TABLE II
SATISFACTION WITH THE DENTAL PROFESSION

Degree of Satisfaction (Score)	Utah Dentists* (1972 Data) f	%	Cumulative %	Kentucky Dentists (1978 Data) f	%	Cumulative %
Extremely Satisfied (9-10)	159	62.8	(62.8)	16	17.0	(17.0)
Satisfied (7-8)	68	26.9	(89.7)	46	48.9	(65.9)
Undecided (5-6)	10	3.9	(93.6)	13	13.8	(79.7)
Dissatisfied (3-4)	2	.8	(94.4)	2	2.2	(81.9)
Extremely Dissatisfied (0-2)	1	.4	(94.8)	1	1.1	(83.0)
No Response	13	5.2	(100.0)	16	17.0	(100.0)
TOTALS	253	100.0%		94	100.0%	

*The frequencies and percentages reported here for the Utah dentists are slightly different from those published initially since some minor errors were made in the statistical analyses and manipulations of the data at that time. The same is true for Utah data entries in Tables IV and V.

An inspection of the cells of Table III produces very little evidence of a relationship between age and role satisfaction for both groups of dentists. A negligible negative association was noted with the Utah data and a low positive association was detected with the Kentucky data. The first hypothesis receives very little support.

The second hypothesized relationship between role satisfaction and years practicing was also negligibly supported with the Utah data (gamma = -.09; Table III). A stronger, low positive association was elicited with the Kentucky data (Gamma = .25; Table III), however, indicating that as years practicing increased role satisfaction concomitantly increased to a weak extent.

TABLE III
SUMMARY OF THE RELATIONSHIP BETWEEN PROFESSIONAL ROLE SATISFACTION AND SELECTED INDEPENDENT VARIABLES

Tested Relationship	Utah Dentists* (1972 Data) Gamma	Kentucky Dentists** (1978 Data) Gamma
Age (X) by Role Satisfaction (Y)	-.06 (N=240)	.16 (N=78)
Years Practicing (X) by Role Satisfaction (Y)	-.09 (N=236)	.25 (N=78)
Social Participation (X) by Role Satisfaction (Y)	.08 (N=239)	.02 (N=78)

*The use of the limited universe sample for the Utah data precluded the application of tests of significance. In regards to sampling from a hypothetical universe, Hagood and Price[26] have indicated that as the sample size is increased, the standard error of the mean (the standard deviation of the sample mean from the population mean) approaches zero. Hence the value of the sample mean is no longer an estimate, but the actual measured universe parameter. Gamma, used as a descriptive statistic in this instance, is a literal measure of the degree of association between the specified variables. Tests of significance have no meaning or application to the Utah data.

**Chi-square significance test values were obtained for the tested relationships with the Kentucky data. Since none of the relationships were significant according to the usual standards, the values are not presented in Table III, however.

Obviously the associations between role satisfaction and social participation for the two samples are negligible (see Table III). Table IV is presented in the interest of providing additional information concerning voluntary association memberships of dentists. Hyman and Wright[27] reported the following proportions of participation in voluntary organizations (based on national sample surveys): "For professional and business people making over $7,000.00 per year, 47 percent belonged to 0 organizations, 17 percent belonged to 1 organization, and 36 percent belonged to 2 or more organizations." These data are summarized in Table IV along with comparable data from the Utah and Kentucky samples of dentists.

TABLE IV
COMPARISON OF REPORTED PARTICIPATION IN VOLUNTARY ORGANIZATIONS

Number of Organizations Affiliated With	Hyman-Wright Data (1971)		Murray-Seggar Data (1972)		Murray Data (1978)	
	%	Cumulative %	%	Cumulative %	%	Cumulative %
0	47.0	(47.0)	29.2	(29.2)	31.9	(31.9)
1	17.0	(64.0)	24.9	(54.1)	24.5	(56.4)
2	36.0	(100.0)	10.7	(64.8)	8.5	(64.9)
3+			7.5	(72.3)	18.1	(83.0)
No Response			27.7	(100.0)	17.0	(100.0)
TOTALS	100.0%		100.0% N=253; $\bar{X}$=1.0; S.D.=1.0		100.0% N=94; $\bar{X}$=1.0; S.D.=1.0	

When comparisons are made, it can be concluded that substantially fewer dentists in both samples belong to 0 organizations than "professionals" at the national level (29 percent and 32 percent versus 47 percent). In addition, more of the dentists are apparently affiliated with at least 1 voluntary social organization. However, a larger number of "professionals" at the national level belong to 2 or more social organizations than do individuals from either sample of dentists.

In another study pertaining to social participation, Scott[28] reported the mean number of memberships in voluntary associations for professionals (nonmanual laborers) as 3.3. This finding was obtained from field research in Vermont and comparative research done in other cities throughout the United States. He also suggested that nonmanual workers have much greater participation in voluntary associations than manual workers, and concluded that "approximately two-thirds, or 64.2 percent, of the overall population are members of 1 or more voluntary associations other than a church."

When comparing the Scott findings with the Murray-Seggar data and the Murray data presented in Table IV, the mean number of organizational affiliations is slightly different (3.3 versus 1.0). Also, 43.1 percent of the Utah dentists and 51.1 percent of the Kentucky dentists compared with 64.2 percent of the overall population nationally are socially active in voluntary organizations. Responses used for these comparisons were those reflecting the number of organizations affiliated with, while the social participation scores

calculated as described in the methods section were used in testing the hypothesized relationship between role satisfaction and social participation.

To test the final hypothesized relationship, role satisfaction with practice locale, a comparison of the mean satisfaction scores for dentists from urban and rural practice locales in both samples was completed. Table V illustrates that no significant differences were detected in the means in both samples. Thus the final hypothesized relationship receives no support.

TABLE V
A COMPARISON OF THE MEAN PROFESSIONAL ROLE SATISFACTION SCORES FOR DENTISTS FROM URBAN AND RURAL PRACTICE LOCALES

Professional Role Satisfaction Score	Utah Dentists (1972 Data)				Kentucky Dentists (1978 Data)			
	Rural		Urban		Rural		Urban	
	(N)	%	(N)	%	(N)	%	(N)	%
0-5	0	0.0	7	3.0	2	11.1	6	7.9
6	1	5.9	5	2.1	3	16.7	5	6.6
7	1	5.9	17	7.2	2	11.1	19	25.0
8	4	23.5	46	19.5	5	27.8	20	26.3
9	6	35.3	77	32.6	6	33.3	8	10.5
10	5	29.4	71	30.1	0	0.0	2	2.6
No Response	0	0.0	13	5.5	0	0.0	16	21.1
TOTALS	17	100.0%	236	100.0%	18	100.0%	76	100.0%
	$\bar{X}$=8.76		$\bar{X}$=8.73		$\bar{X}$=7.56		$\bar{X}$=7.33	
	S.D.=1.15		S.D.=1.35		S.D.=1.42		S.D.=1.45	
Difference of Means Test	t=.10, p=NS				t=.60, p=NS			

DISCUSSION

Before launching into a discussion of the findings, it should be noted that no claim is made for exact comparability of the data or for precise representativeness of the samples. Yet, it is believed that the data are reasonably qualified in both these respects. Acceptable scale validity and reliability procedures were completed. Furthermore, the fact that both sets of data present similar general cross-cultural patterns with only subtle differences, tends to increase one's confidence in the results.

General Findings

The exigencies of daily practice placed on young practitioners embarking upon their careers may generate role conflict or role stress. A person occupying the status of dentist plays an array of roles relating him or her to diverse others in the system, e.g., patients, colleagues, and family. As a result the dentist may be confronted with completely incompatible demands. From the beginning of his or her training, the individual's goals may have included desires for prestige and financial security. Concurrently, however, the dental student cultivates to one degree or another a code of professional ethics emphasizing altruism, service, and sacrifice. To take another example, patients may expect the dentist to provide essentially painless dentistry, while the facts are that many dental procedures are unavoidably painful. If these types of conflicting demands are truly present, it is proposed that they would be reflected in reported variations in satisfaction with professional dental practice.

As disclosed in the current investigation, in spite of structural maladjustments which could give rise to professional role dissatisfactions in dentistry, the modal respondents from two different cultural areas expressed above average role satisfactions with their professional vocation. Their attitudes probably constitute positive approval of the rewards extant in the practice of dentistry. Katz and Kahn[29] have made the following insightful point: "By and large, people seek more responsibility, more skill-demanding jobs. . .and as they are able to attain these . . . they become happier, better adjusted and suffer fewer health complaints." It seems plausible that dentistry is one of those more "skill-demanding jobs" which when attained would provide much satisfaction. A large percentage of the dentists sampled both in the earlier studies summarized at the outset of this report, and in the present investigation, are sufficiently satisfied with their profession to lend support to the above notions.

When considering the recruitment of prospective dentists, these general findings of high levels of satisfaction on the part of the dentists have great applicability. High school students, who are considering dentistry as a profession, should be very impressed with the consistent findings favoring dentistry as an occupational choice. The students should be motivated to give dentistry additional, thorough consideration.

Specific Findings

Generally speaking, the dentists in the Utah sample were more satisfied then those in the Kentucky sample. Furthermore, opposite

trends were detected with the two samples when role satisfaction was evaluated in relation to the variables age and years practicing. That is, there was very weak evidence that younger dentists (with fewer years of practice experience) in the Utah sample were more satisfied than their counterparts in Utah and their young colleagues in Kentucky.

A speculative, but plausible explanation for these differences is that the majority of the Utah dentists were socialized to be satisfied with their professions to a greater extent as a result of being reared under the influence of the Mormon Church. Children reared in Mormon homes are traditionally taught to become God-like in character. They learn, for example, that "the glory of God is intelligence" and the achievement of a professional degree is a tangible manifestation of the development of one's intelligence. Moreover, it is possible that the majority of the Utah dentists served two-year full-time missions for their church prior to entering dental school. The type of missionary service typically promulgated by the Mormon Church requires the development and practice of characteristics such as altruism, service, and sacrifice. Hence, when the young missionary returns the successfully attains the status of dental professional, the carryover of childhood attitudes and missionary-type experiences and values into private practice may occur quite automatically either consciously or subconsciously. The result would be relatively high levels of reported satisfaction with occupational attainments and the opportunity to render health services to people on a daily basis, despite the conflicting demands or other sacrifices that must be made to establish a successful professional practice.

On the other hand, the Kentucky practitioners possibly reported less satisfaction with their professional status because their socialization experiences (especially religious experiences) were not as extensively pervaded with the infusion of characteristics such as altruism, service, and sacrifice. Nor were these characteristics adequately developed in dental school. That students become adequately socialized to professional norms at the level espoused by their own profession is questionable. In a study of the evolution of the professional in dentistry, it was found that the students became more resistant to the incorporation of professional values as they progressed through dental school. Although they became technically trained, the majority did not internalize the higher goals and ideals of their profession.[30]

Over time, it also appears that the Utah dentists become slightly less satisfied with their role while the opposite occurs (to a weak extent) with the Kentucky dentists. Perhaps the higher levels of dissatisfaction among the older Utah practitioners may be due partly to the feeling

that they have reached a plateau of achievement with little prospect of promotion of change of environment. Conversely, the majority of Kentucky dentists possibly become more satisfied with their profession over time because they slowly acquire (through adult socialization experiences) a stronger service orientation and a sense of appreciation for their income, status, and job security.

William Graham Sumner[31] noted that behavioral standards vary from society to society. This phenomenon occurs because people everywhere are attached to their own unique folkways and mores. Behavior must be interpreted in light of the motives, habits, and values associated with a given culture. This theory of "cultural relativism" challenges the notion of absolute standards of judgment to be applied uniformly regardless of time or place. When viewed in the context of dental job satisfaction, it suggests that variations in satisfaction reported by individuals in different geographical locales may be attributed to cultural differences which must be interpreted accordingly.

Another non-religious factor which may account, in part, for the observed minor differences in the satisfaction levels of the two samples is inflation. In the interim between the years when the two sets of data were collected, inflation accelerated at an unprecedented pace. The costs associated with completing a dental education, setting up practice, and establishing oneself in a home in 1978 may have placed a damper on young practitioners' enthusiasm with the profession. A result would be more reported dissatisfaction by the younger dentists with their professional role.

Social Participation

Leaders of the dental profession have manifested considerable discontent with the products of dental education in the past several decades.[32] They feel that the technical excellence acheived by dentists in America has not been accompanied by concomitant development of social awareness. Dentists' affiliations with community or city voluntary social organizations appear to be in need of improvement. The findings of the research reported in this article demonstrate that dentists from two different cultural areas are more socially active than many other professionals, even though they are less active than the majority of adult Americans with less demanding occupations.

Future thorough investigations of the theoretical ideas presented above may be warranted with other samples. In addition, longitudinal studies of the development of and changes in role satisfaction over time would also contribute to a better understanding of professional role satisfaction.

SUMMARY

The purpose of this report was to summarize and compare the results of analyses of the role satisfactions of dentists from two different cultural areas. An earlier investigation of Utah dentists (1972) was essentially replicated with the study of a smaller sample of dentists practicing in Kentucky (1978). Comparisons were made in terms of the following research objectives: (1) to determine if there are any detectable differences in reported role satisfactions of dentists from two different cultural areas; (2) to determine how socially active dentists from two different cultural areas are in community or city organizations; and, (3) to see how role satisfactions of dentists from two different cultural areas vary with age, years practicing, practice locale (urban-rural), and amount of social participation.

The comparative responses of 253 dentists in Utah and 78 dentists in Kentucky revealed that the majority in both samples were satisfied with their professional role. The satisfaction levels for the Utah dentists were not associated with age, years practicing, and practice locale (urban-rural) to any significant degree. The satisfaction levels for the Kentucky dentists were weakly associated (though also non-significantly) with age and years practicing, i.e., older practitioners with more practice experience were more satisfied. Urban and rural practitioners in Kentucky were equally well satisfied or dissatisfied with their professional role. A smaller percentage of dentists in both samples reported no social participation than did professionals on a national scale, and social participation was not related to variations in professional role satisfaction.

Drs. Merrille W. Packer (Dean, College of Dentistry), Philip M. Moody, Eugene B. Gallagher, and John V. Haley (Department of Behavioral Science), all from the University of Kentucky, assisted with the development of this project. The author appreciates their insights and contributions.

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The Geriatric—The Need for Access to Oral Health Care

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Dr. Robert Butler, Director of the National Institute on Aging stated, "Health professionals traditionally have not shown much interest in old people or their problems. Geriatrics has long been considered a synonym for long-term care with the aging processes viewed as progressive deterioration of physical and mental changes."

"Most of the emphasis in health care is on its curative functions, therefore health professionals are disinclined to become interested in patients for whom they are not likely to perceive successful or long-term results of their efforts."

We are now faced with the challenge and responsibility to change the attitude of health professionals—in this instance, dentists—toward the aged patient. This objective of changing dentists' attitudes will only be achieved by introducing and requiring geriatric and gerontology courses in undergraduate and postgraduate education to overcome the deficiencies of the dentist's skills and knowledge in gerontology and gerodontics.

Reed and Kiyak, in a comprehensive review of geriatric dentistry stated, "The elderly population has the greatest oral health needs of any segment of the American population. They have the lowest accessibility to and utilization of dental care. With rising inflation and the growing population of elderly persons at a disadvantage, in terms of resources, the trend is to more unmet needs and unfulfilled demands." They point out that 55% of persons 65–74 years of age and 40% of those over age 75 retain some or all of their natural teeth, which suggests a major need for preventive dental care of the natural teeth among the aged, as well as a knowledge of pathology and degenerative changes of the oral tissues and structures that occur in the aging process.

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Unfortunately, the aged person has an apathetic attitude about the necessity for maintaining his oral health. He accepts the degeneration of the oral structures as part of the aging process. He has difficulty in arranging for or receiving appropriate care. There are limiting financial considerations. All of these factors he frequently sums up by "What's the use?"

Because our culture is youth-oriented, physicians and dentists find it easy to ignore the plight of the elderly. The dental professional has long advocated preventive dentistry, however, the emphasis has been toward children and young adults, not toward the aging for whom it is equally important and more readily accepted and appreciated.

One must start with the basic premise that the dentist's sole objective and the patient's needs and desires are prevention of pain, elimination or control of infection and restoration of function. Preventive dentistry requires a large measure of thoughtful judgement and compromise. Unfortunately, both judgement and compromise must necessarily be based on experience rather than following precepts of dogmatically defined criteria.

Oral hygiene should be the first and highest priority because it provides a clean environment that may prevent the need for subsequent treatment. Oral hygiene education involves the patient in actively contributing to his own well-being and treatment. Often, improved oral hygiene is effective in removing localized areas of irritation or infection that cause pain and discomfort in the aged. The oral hygienist is of inestimable value in performing therapeutic oral hygiene procedures. She has skills and knowledge to correctly educate the patient in developing appropriate personal oral hygiene skills and habits. The dentist and the hygienist also may devise or modify tooth brushes or other oral hygiene procedures to compensate for any of the patient's physical limitations.

A question often posed is how does dental care to meet the needs of the elderly differ from that of caring for the younger person? To reflect on this question, one must define who is elderly. The late Dr. Arthur Elfenbaum categorized the aged into essentially two groups, namely: the hearty perennials in the garden of life, and the broken faded blossoms. Unfortunately it is the group of broken blossoms—the physically or emotionally impaired—upon whom most all geriatric health problems are focused. They are the image for both physicians and dentists when they think of the aged. Yet they actually constitute the smallest portion of the total aged population of approximately 25 million people over age 65. Recent statistics indicate that there are only 2.1 million people who are institutionalized and 6 million who are homebound.

The first group—the hardy perennials—have an eagerness and enthusiasm for life. They consciously reject any limitations placed upon them. They accept change as a challenge and adapt to it successfully. They attempt maximum participation in the world about them both physically as well as intellectually. However, to many of the elderly tooth loss is viewed as further disintegration of their body integrity, loss of independence and growing older, and even impending death, so preventive dental procedures have a greater meaning to them than to younger persons. But many dentists are too eager to acquiesce to requests to remove remaining dentition and provide prosthetic substitutes. This is a sham, all too often based on economic considerations. Dentists do these people a great disservice when they fail to recognize their need to maintain optimum oral health, function and appearance.

The vital, vigorous, alert, and wholly ambulatory geriatric is capable of receiving total comprehensive dental care. The dentist who has the necessary clinical treatment skills that are applicable to the problems of young patients can apply his capabilities equally to resolve the oral health needs of the aged patient. However, he will have to learn to make important modifications and compromises in his procedures that will be based on the level of his experience and clinical judgement.

The second group of patients—the broken blossoms—are often confined to their homes, hospitals, nursing homes or custodial care institutions. They present different problems for the dentist as they do for all other health care persons—physicians, nurses, therapists, social workers, and their own family. Many of these persons were old long before their chronological years. Because they are physically or psychologically compromised they gave up on life and are resigned to a passive kind of existence.

The greatest problem that the dentist has in treating this special patient group in nursing homes or homebound is making careful assessment of his needs—his capacity to receive and accept treatment and his feelings and realistic expectations about himself. Successful treatment of these aged individuals is often more dependent on the dentist's ability to establish good rapport and strong empathy rather than on basic dental technical proficiency.

The second problem for the dentist may be his own "hang-up" about relating to and treating the older patient. He is not comfortable with how he sees or identifies with the patient. Often he is threatened by the patient's attitude which questions his diagnosis, treatment plan or the effectiveness of his treatment. The younger patient is less demanding—more accepting of the dentist's omnipotence—less questioning and less threatening.

One must also give careful consideration to the individual's mental or emotional status. What are his feelings about himself? What does he really want; what does he expect or need? Often minimal compromised treatment may serve better than extensive restorative procedures in which the dentist strives toward the idealized treatment. Moreover, frequently, the patient's desires and expectations or those of his family may be unrealistic. Any effort to fulfill these may be fraught with disappointment for both the patient as well as the dentist. Experience has demonstrated that these special patients are often best served by a hygienist or, more particularly, a nursing staff that has been given dental health education and is encouraged to take initiative and responsibility for oral care. These auxiliaries can provide the dentist with valuable insight and information relative to treatment planning.

Careful medical and dental assessment of these patients' physical and emotional status is paramount. For geriatric patients who are in advanced states of physical degeneration and impairment or mental deterioration, the dentist's primary role must be to keep the patient free of pain and infection and maintain an effecive level of function. The most important service may be establishing a regimen of oral hygiene that the patient can perform or that can be done by others as a daily routine. Cleanliness of the oral structures or prosthetic appliances does much for the well-being of the individual. The dentist who attends patients at home or in any institutional setting must make daily routine oral hygiene a first priority in teaching the patient, nursing staff or family how to perform effective procedures.

It is important that we structure better programs and facilities to provide oral health care in nursing homes. Dental professionals have been remiss in professional concern and responsibility. If the objective of this conference is to find an appropriate means and direction for providing access to oral health care for aged persons, there are specific and fundamental directions that must be considered and pursued.

The ADA should cooperate and support the ASGD, which has an established, experienced, knowledgeable, and dedicated membership. As a joint effort, they should plan to establish a broad-based national geriatric organization to which they invite and encourage participation of all dentists, dental auxiliary groups and other allied health professionals interested and concerned with total oral health and related problems of the elderly.

The ADA should stimulate the expansion of the curricula of dental schools to include geriatrics and gerontology. Aged people, as someone wisely stated, want a geriatrician to care for themselves in the same sense that they want a pediatrician for the health needs of their children.

It is noteworthy that schools of nursing and social work have long recognized the special needs and problems of the aged patient and have provided a considerable measure of education and training in geriatrics. However, medical and dental schools have largely been remiss in providing specific education and course material that is directed primarily to the health care problems of aged persons. Information about diagnosis and treatment of the aged has been sandwiched into courses in the basic curriculas as part of a given subject. Courses are not carefully delineated, so that medical and dental students are expected to extrapolate information that they may interpolate as applicable to resolving the geriatric's problems.

A cursory survey of dental school curricula reveals that only a few schools in the United States are giving well-structured course material specifically related to the geriatric patient. All too often the subject of geriatrics is included in the curricula of the department of prosthetic dentistry—a concept that is based on how to restore or replace tooth loss and oral pathology that might have been prevented or treated. Nowhere is preventive dentistry stressed to keep the aged person orally intact, free of pain and infection, functional in mastication and assimilation of foods, improved in speech and cosmetically and psychologically well integrated. There is little or no information on holistic concepts of the aged person.

Of more serious concern is the fact that dental schools have not focused in any measure on including geriatrics in their postgraduate continuing education curricula. In 1975 the ASGD and ADA, with funding from HEW, sponsored a series of 10 regional seminars in geriatric dentistry. This provided some impetus to a few dental schools to continue to develop some gerodontic programs. Unfortunately state and national dental meetings are yet to evidence any expanded programming in their educational content. Again, hopefully there will be a stimulus from the ADA's important commitment now to expanding access of care for the aged.

The time is now for the American Association of Dental Schools and the ADA to provide direction and leadership for dental educators to develop a fairly uniform body of geriatric information that is pertinent for the dentist who will be responsible for treating the older patient.

Neither the ASGD nor the ADA should in any way encourage creating a new specialty. Rather the concern of both organizations should be to encourage the interest and knowledge of dentists in gerodontics and thereby be prepared to meet the increasing health needs of the rapidly growing aging population.

Unfortunately, until recently, the ADA has not given well-structured leadership in providing gerodontic source material, or developing

educational programs and seminars. However, that is rapidly changing, as evidenced by our meeting here. At its annual meeting last month, the American Association of Dental Schools for the first time had material relating to the gerodontic curricula.

The National Institute on Aging has offered American dental schools the opportunity to apply for a geriatric dentistry academic award as an impetus to develop faculty to provide effective programs addressed to education, research and modalities of delivering oral health care to the aged.

The ADA and ASGD have a special responsibility to educate dentists in procedures to treat the institutionalized and homebound aged. While there are legal requirements that every skilled nursing home must have a dental consultant, in most instances this is a paper record. There is little data to show that there is active participation in providing oral health service. However, both the ADA and ASGD have published excellent procedure manuals for nursing home dental care.

Soble (Geriatric Dentistry, Rosalynde K. Soble—Perspectives: Page 23–25, Nov.-Dec., 1979) wrote, ''Serious thought should be given to the way in which the day care/day treatment teams and patients can incorporate a dentist and dental services into adult geriatric programs. Dentistry is a supportive service that can become an important adjunct to geriatric programs, and has long been a missing denominator in most. To establish the importance of dental care and its relationship to the participants and staff in day care/day treatment geriatric programs, three major questions call for special focus. The questions are:

- What are the main dental problems of the adult and aged populations participating in day care/day treatment programs?
- What impact do these dental conditions have on the elderly's social and psychological behavior?
- How can members and staff of day care/day treatment teams help to meet program participants' dental needs and concerns?"

We need answers to these perceptive searching questions. The ADA and ASGD should encourage and support the National Institute on Aging to expand its definitive studies on the aging of oral tissue structures. The National Institute for Dental Research should also be appraised of the need to explore and develop modalities of dental therapeutics that will contribute to the well-being of the aged.

Dentists must be aware that pathologic processes that are acute in the young are chronic in the aged. Therefore, there should be an assessment of clinical concepts and procedures that were originally involved in the treatment of young patients that may not be valid in considering the clinical problems of the aged, which may often

require modification and compromise in order to maintain physical and psychological wholeness of the older patient.

A measure of any society is how it provides for its aged. All social systems appreciate the need for investing in the health and education of their youth, who are destined to become the citizens of the future, and whose accomplishments will enrich the nation and honor the parents. But what do we owe the aged? Medical and biological sciences have opened new horizons for life in the later years. Life has been lengthened. Distinctions between physical and mental deterioration are being sharpened. New techniques of self-help and of easing dependency are being developed. We shall have to explore new approaches to community living, housing, resident homes and home care for the aged.

By lifting the mandatory retirement age from 65 to 70, Congress has invited these older workers to stay at or return to their jobs. We are back to the original problems dealt with by the earlier scholars: reconciling work, changing family patterns and public finance with age (Leon Stein, Arno Press).

Dental health insurance programs were first planned for children and then later for selected groups of adults, as an important part of total health concepts. The net result is that many adults are now receiving more dentistry. However, we now have a peculiar commentary on health planning. Under the present order of providing health services, the adult at age 65, in most private or group financial health insurance programs, is no longer an eligible recipient for dental care. (At a time of life when income may become restricted and special needs become greater, the availability and cost of dental care becomes a considerable burden.) At age 65, when major health insurance programs may be terminated, financial support of all health services, except dentistry, is picked up by federal Medicare programs or supplementary self insurance.

Again, the dental profession has been remiss. It has not aggressively supported the aged by emphasizing that total health care necessarily includes oral health. The dental profession was not successful in its efforts to have dentistry included when the Medicare act was promulgated. Now, with the increased numbers of senior citizens who desire and need continued oral health as therapeutic preventive maintenance and treatment, dentists should become active in stimulating through private insurance carriers or responsible government agencies necessary legislation for the development of dental health insurance programs.

The ADA and ASGD should become socially and politically active in

initiating legislation to include oral health care coverage within the provisions of the Medicare act. To accomplish this objective the ASGD should establish liaison and work with national organizations of older persons, e.g., AARP. Even more important, the organizations should initiate and recommend that some form of self insurance should be available for securing the benefits of third party payment for comprehensive oral health care.

Equitable insurance programs would be a stimulus. In a study at UCSF it was observed that the lack of economic gain was a deterrant to dentists becoming interested in geriatrics and gerontology. If one realistically looks backward in time, physicians only became interested in the economics of treating the elderly with the advent of Medicare. Unfortunately, their recent increasing interest in geriatrics and gerontology has only been the result of their need to understand how to cope with the rapidly growing numbers of older people and their multiple bio-social problems.

This presentation has been rather broad-based. I have attempted to indicate the need and the challenge that is directed to American dentistry. We can address ourselves to the problems and the needs of the geriatric. We must educate our membership in geriatrics and gerontology and develop our gerodontics proficiency.

It is incumbent upon everyone to be familiar with the section on the "Elderly" in the ADA publication of October, 1979, Prevention and Control of Dental Disease Through Improved Access to Comprehensive Care. It supports, with valid statistics, the observations, arguments and conclusions of many of us, who for many years, have been concerned about the elderly.

The report reminds us that the elderly, in spite of needs, have a very low utilization of dental services. As a group they are almost 11% of our population—60% female and 90% white. Approximately 3.5 million of them have limited mobility because of some chronic condition, 30% of whom may be confined to their homes.

In 1977 the per capita health expenditure for the elderly was $1,745 of which 67% was public expenditure. In 1977 the elderly's per capita dental expenditure was $43, of which $41 or 96% was out-of-pocket.

Unfortunately most of dentistry's interest in the elderly has been on prosthodontics—denturism, increasingly performed by the non-dentist—rather than on preventive services that could be provided by knowledgeable, skilled dental practitioners and their educated, competent and skilled dental auxiliaries.

Despite their extensive oral health needs, the elderly until recently have not been the subject of specific attention with respect to access

by the ADA. We have failed to recognize that they have diminished purchasing power made increasingly severe by inflation. Most live in isolation from supportive family and must cope with exigencies of daily life by themselves. While they have enjoyed the advances in medical art and science which prolongs life for many, they also are confronted with additional physical, economical and social problems.

Medicare purported to include all health care services that the elderly would need. Unfortunately, dentistry stands out with special clarity as a service excluded from Medicare. To correct this health care inequity, the ASGD and particularly the ADA are vigorously expressing their concerns about the importance of oral health care for the elderly and the burgeoning needs. Responsible leaders have been expending great efforts to educate national legislators in Congress to effectively amend the Medicare act to include comprehensive dental care benefits. We would urge the ADA to enlist support and work in concert with senior citizen organizations for such an amendment to achieve this objective.

It is imperative that we give support to forming an organization under the aegis of the ADA and ASGD that has dental health of the elderly as its specific interest. This organization would represent and provide access of all health disciplines to relate dental health needs to the general health and socio-economic concerns of the elderly.

One concluding comment: we have discussed the oral health needs of the elderly—the importance of geriatric education for dentists—the economic factor relating to providing care. We must also briefly address our concern to the physical accessability of care. There should be thoughtful, perceptive and innovative planning to develop dental treatment facilities, clinics, health centers, mobile units and private officers where the aged can come with minimum of expense, physical effort and risk to receive treatment.

Some of the factors that require study are providing efficient modalities of transportation; location and design of dental offices; security of neighborhoods and the desirability of establishing dental facilities in conjuction with other health service facilities or geriatric community services centers.

Our studies of access to meeting the oral health needs of the elderly only start with the questions raised—we all have much to do to find some answers.

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Continuing Education and Performance-Based Programs

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Continuing education is considered a necessity in most professions today. Many disciplines favor this method of updating the graduates' capabilities and disagree with the concept that a degree represents the finalizing of an education. The consensus is that no school can prepare a person for a lifetime of practice and that continuous education must be maintained to keep the profession up to date.

THE PRESENT SCOPE OF CONTINUING EDUCATION

Dental continuing education is provided in several ways. Universities usually present courses which last from a few hours to several days. Dental Associations present courses which last from one to several hours. Study clubs frequently have a course of study covering a subject which may continue at successive meetings for several months. A few private and commercially sponsored continuing education courses are occasionally presented.

THE STATUS OF CONTINUING EDUCATION TODAY

Until World War II dental continuing education consisted mostly of courses or programs presented at local, state, or national dental meetings or through the activities of study clubs. In the late 1940's when educational benefits were offered to veterans of military service, some schools began to give short courses for the practicing dentist. There was no surge of interest in dental continuing education, however, until the dental portion of Medicaid (Title XIX of the Social Security Act) was activiated in New York State in the early 1960's.

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The Department of Public Health in New York State, which had been given responsibility for administering the newly approved Medicaid program, arbitrarily established the requirement that dentists who participated in the program must show evidence of having attended a prescribed number of continuing education courses. The requirement caused considerable excitement before it was removed. It had two noticeable results, however. The requirement caused attendance at dental society meetings in New York to reach an all time high. Secondly, a national awareness of the need of continuing education was increased within the profession.

During the past twelve years a number of significant steps have been taken that have enhanced the interest in continuing education which consequently has created more involvement by schools, dental societies, study clubs, specialty groups, commerical companies and individuals.

In the early 1960's, Kentucky and Minnesota passed laws requiring continuing education for dentists. All of the new dental schools established continuing education programs, as did many of the old ones. Legislation mandating participation in continuing education is in effect for dentistry in California, Iowa, Kansas, Minnesota, Oklahoma, Oregon, New Mexico, Kentucky, North Dakota and South Dakota. (Table 1) Twenty states have implemented legislation for continuing education in medicine. Nebraska, Kentucky and Nevada have passed legislation yet to be implemented, regarding relicensure in medicine, and Massachusetts in dentistry. Wisconsin requires continuing education for malpractice insurance coverage. Twenty one states have implemented legislation for continuing education in pharmacy. (Table 2)

The increased interest in competency and the issue of quality assurance have increased interest in continuing eduation. To understand the role of continuing education it is necessary, first, to define what dental continuing education is supposed to do and second, to project the potential of continuing eduation toward achieving the goal of improved health care for the patient.

DEFINITION OF CONTINUING EDUCATION

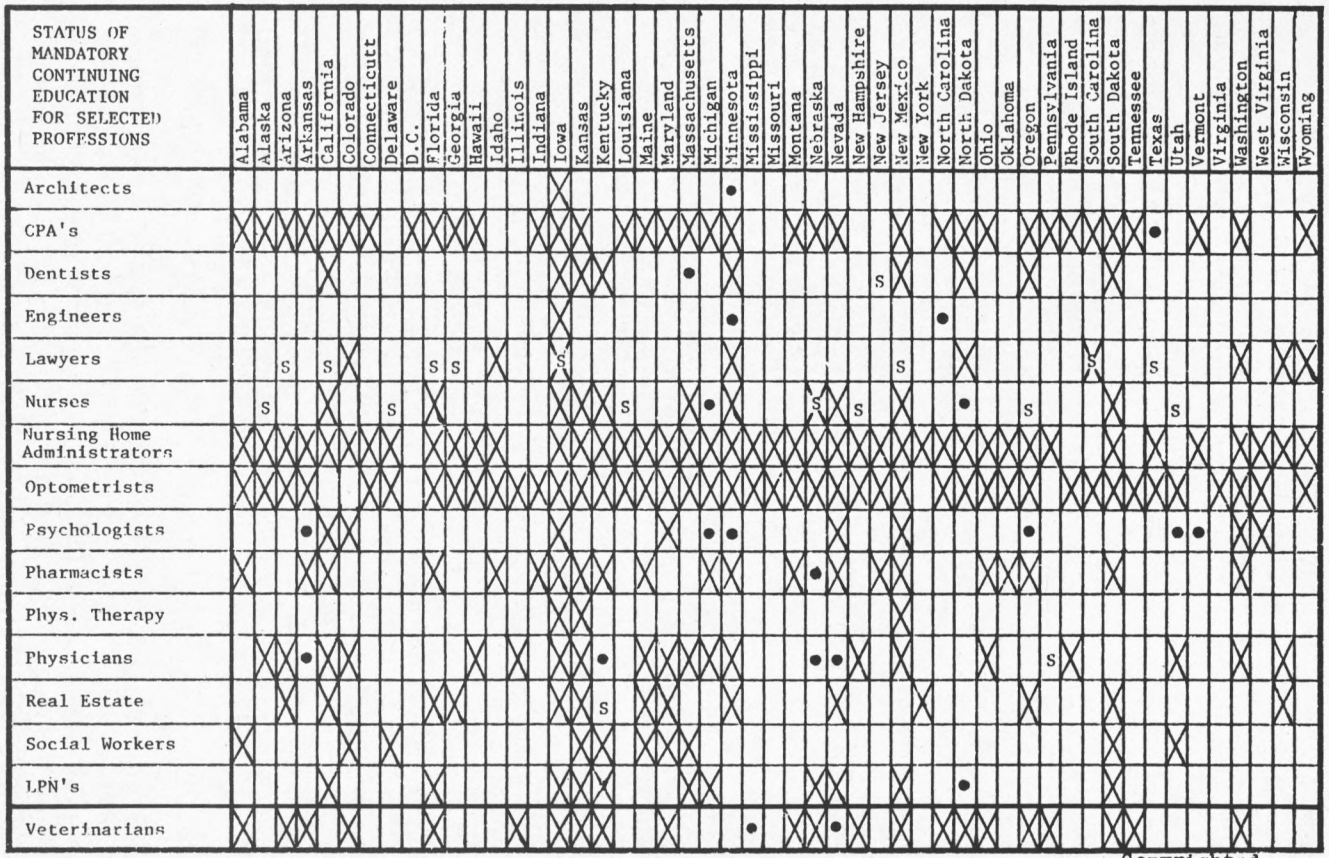
Dental continuing education is a generic term for a broad, loosely grouped collection of courses that includes the use of journals and/or tape cassettes, didactic lectures, self-assessment examinations, clinical and technical participation courses and numerous variations

TABLE 1
STATE CONTINUING EDUCATION REQUIREMENTS FOR RELICENSURE

State	Date Requirement was Implemented	Required Units of Continuing Education	Credits Reported to What Agency
California	May 1, 1974	Dentists: 50 Credit Hours Every Two Years Hygienists: 25 Credit Hours Every Two Years	State Board
Kansas	Passed in 1976 Mandatory July 1, 1978	Dentists: 30 Credit Hours Per Year Hygienists: 15 Credit Hours Per Year	State Board
Kentucky	September 2, 1970	10 Points Per Year	State Board
Minnesota	June 30, 1969	Dentists: 75 Credit Hours Every Five Years Hygienists: 40 Credit Hours Every Five Years	ADA Continuing Education Registry
New Mexico	July 1, 1975	40 Credit Hours Every Three Years	State Board
North Dakota	1971	Dentists: 50 Credit Hours Every Five Years Hygienists: 25 Credit Hours Every Five Years	ADA Continuing Education Registry
Oklahoma	January 1, 1976	Dentists: 60 Credit Hours Every Three Years Hygienists: 30 Credit Hours Every Three Years	ADA Continuing Education Registry
Oregon	December, 1975 implemented; January 8, 1977 minimum requirement adopted	Dentists: 40 Credit Hours Every Three Years Hygienists: 20 Credit Hours Every Three Years	State Board; Oregon Dental Association
South Dakota	July 1, 1971	Dentists: 40 Credit Hours Every Five Years Hygienists: 20 Credit Hours Every Five Years	ADA Continuing Education Registry

including local hospital staff conference and rounds. By definintion, the target population is dentists, and auxiliaries who have completed their undergraduate and postgraduate and specialty trainings, and who, for the rest of their professional careers, will be partaking of "continuing education".

TABLE II



X - required by statue or regulation

● - enabling legislation passed

S - required under certain circumstances

Note: information obtained from national professional associations

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Revised June 1980

OBJECTIVES OF CONTINUING EDUCATION

The essential and short range objectives of most continuing education efforts are to transmit new information, update or maintain skills or build on a core of skills developed during the many years of dental education and clinical practice. The long range objective of continuing education is to facilitate diffusion of all new knowledge and therapeutic modalities into clinical practice.

Such thoughs gives rise to the question: should continuing education merely be an academic exercise or should it be a useful instrument for continuous professional growth? If the answer is the latter, therefore, is continued professional growth synonymous with professional competence and have continuing education programs accomplished the objective of enhancing the dentists' competence?

THE PROBLEM

The evidence suggests that current continuing education has failed to materially improve competence and the delivery of health care.

Milgram[1] reported on a study of practitioners who perceive passive continuing dental education as a useful instrument as compared to those who ranked the more interactive measures as more useful.

Learning is largely the consequence of experience coping with the stress in one's environment. Formal education should be designed essentially as a curriculum for problem solving. A curriculum should be designed to lead progressively to independence in identifying, analyzing and means of resolving problems[2].

Libby and coworkers[3] criticize the effective worth of existing continuing education programs because methods, techniques and philosophies of traditional learning approaches are used inappropriately for teaching adults. They identify these characteristics as ineffective for adult learners:

1. The educational purpose is viewed as the transmittal of information
2. The programs reflect technical presentations by subject matter experts.
3. The programs are primarily of a lecture or panel discussion format.
4. Active formalized clientele involvement in the program or in need determination is limited.

The most serious and publicized problem in quality assurance is the very small group of health professions who, as individuals, consistently practice poor quality dental care. Upon closer examination this group consists of three types:

1. Doctors who have serious personal problems, such as drug addiction, acloholism or physical/mental disabilities that effect their performance.
2. Doctors who perform unwarranted procedures.
3. Doctors who have ignored their maintenance of skills and knowledge. Over a period of years, as the standard of practice has changed due to new knowledge, they have become increasingly out of step with what are considered adequate skills.

The first two types will be unaffected by any type of continuing education, and they must be accomodated by other means. The third type of doctor would benefit from continuing education and the public would have sufficient reason to require him to participate. The number of professionals in this third group probably represents only a small fraction, estimated at less than one percent.[4]

For the remaining majority of health professionals who practice acceptable quality of care, there are two dimensions of quality that merit concern. One is the technical, scientific quality of practice, and the other is the non-technical or "art of caring" aspect.

In the area of technical quality, concerns of doctors in the majority can usually be classified as:

1. Failure to possess appropriate information considered necessary to meet quality standards.
2. Failure to apply such information.

The former is a communication problem, the latter may be due to oversight, failures in judgement and/or external pressures (e.g., seeing thirty patients in one day).

In theory, dental continuing education should overcome the problem of not possessing adequate information. However, dental continuing education must also provide the vehicle to solve the second problem since failures to apply knowledge are vastly more significant than failures to possess knowledge. Except for the lack of knowledge about new developments, problems related to knowledge deficiencies do not show consistent patterns.

OBSOLESENCE

A professional's knowledge may be out of date only five years after completion of training. Unfortunately, most continuing education tends to be sporadic, fragmented and non-sequential, without curbing of obsolescence. A systematic, integrated approach by professional schools is called for.[5]

In education, obsolescence is the deterioration of acquired knowledge with the non-acquisition, or non-utilization of new knowledge. The time dependent knowledge gaps for technically educated people, as developed by Klus[6], has pertinence to the health professional. (Figure 1)

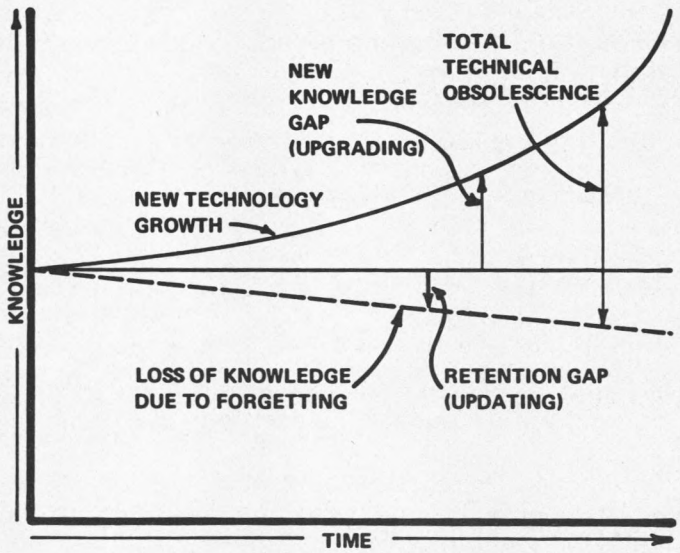

FIGURE 1
Time-Dependent Knowledge Gaps For Technically Educated People
(Need for Updating and Broadening)

Developed by: John P. Klus, Ph.D., Professor and Chairman, Department of Engineering, University of Wisconsin-Extension

Retention fall-off is a reality for those in practice. Technological lag might affect the care a practitioner provides if his knowledge did not equip him to diagnose oral cancer. Obsolescence would refer to an inferior quality of care than that which the present state of knowledge makes available.

Retraining is for maintenance of knowledge and skills at a functional level. Continual loss with only periodic retraining is not acceptable when the health professional must perform with constant proficiency at a high level.

Combating obsolescence is a shared responsibility involving the individual, universities, professional and other organizations. But, major programming must be placed in the educational mainstream, where a systematic approach to learning and a continuous relationship with the learner can be maintained over a period of time.

It must be recognized that continuing education is a system within other systems. There are many definitions of adult education to be found in the literature. A recent one offered by Houle is comprehensive. Adult education is the process by which men and women (alone, in groups, or in institutional settings) seek to improve themselves or their society by increasing their skills, knowledge, or sensitiveness; or it is any process by which individuals, groups, or institutions try to help men and women improve in these ways.[7]

POSSIBLE SOLUTION

Increased investment if time and money in continuing education is needed to translate knowledge courses into performance based programs.

The most significant recent development in continuing education is mandatory attendance. This has been the profession's response to pressure for quality of care assurance to the increasingly concerned public.[8]

Traditionally, a major concern in dental continuing education is evaluation of the effectiveness of instruction. The American Dental Association and Academy of General Dentistry sponsored a National Conference on continuing education in Chicago in June, 1975. Among the recommendations made were statements relating the need for broader course evaluation, self-evaluation mechanisms and pre-testing and post-tesing.[9]

Chambers is of the opinion that the importance of measuring behavior change is exaggerated and suggests treating quality assurance as a separate issue and urges the use of continuing education as a means for improving the overall performance of the dental profession.[10,20]

The traditional approach to evaluation has been for participants to complete short questionnaires of course conclusions. The value of a course cannot be equated with how well it is received by participants. Also, a serious deficiency in course evaluation is the lack of studies actually relating participants' behavior change to course content.[11,12]

It has been suggested that evaluation can be improved by testing participants' factual knowledge before and after a course.[9,13] The differences between pre-test and post-test scores (termed the gain score)[5,14] can then be used as a measure of the effectiveness of the course. Although this system represents an improvement over previous approaches to the evaluation problem, it too has inherent limitations.[10,15] One principal shortcoming to this type of testing is its obvious limitation to the kind of factual knowledge which can be measured in a testing format. There is also a weakness in pre-testing and post-testing which prevents them from being used in any program to certify the learning of individual dentists; a large "gain" can be faked by intentionally scoring low on the pre-test.

Evaluation of clinical performance is an extremely important and time consuming aspect of education and patient care. Mackenzie[16] points out four major reasons for measuring clinical performance:

1. To certify competency
2. To maintain quality in health care delivery
3. To provide feed back to practitioners
4. To improve the instructional process

Wiebusch and Wittemann[17] stated that the results of the initial impact of a course had substantial benefits in terms of immediate knowledge acquisition, and that reinforcement by means of other courses should be made available if the knowledge level is to be maintained and the desired behavior to be forthcoming.

When the health professional's behavior change is required to improve the quality of care and when the change results from acquisition of knowledge, continuing education is likely to be contributory and useful. In short, knowledge should be translated into improved performance by the health professional.

SUBJECT ORIENTATION VS. PROBLEM ORIENTATION.

Concentration on the nature of the adult learner has given rise to the term, andragogy, the art and science of helping adults to learn. Knowles[18] has pioneered the use of the term in the United States. He uses it as a basis for making certain assumptions. The assumptions, four in number, have importance for those who plan and implement programs of continuing education:

1. As a person matures, his self-concept moves from one of being a dependent personality toward one of being a self-directing human being.
2. As a person matures, he accumulates a growing reservoir of experience that becomes an increasing resource for learning.
3. As a person matures, his readiness to learn becomes oriented increasingly to developmental tasks and social roles.
4. As a person matures, his time perspective changes from one of postponed application of knowledge to immediacy of application; accordingly, his orientation to learning shifts from one of subject-centeredness to one of problem-centeredness.

It is commonly accepted that a variety of learning activities are effective, and some are preferred over others by different individuals. In the case of the adult learner, the practicing professional, the use of problem oriented, interactive experiences which require sustained participation should be promoted.

Dentistry places great physical and emotional demands on practitioners. Dentists and hygienists sit or stand for long periods of time. The nature of patient care requires concentration, emphasizes the use of small muscles, and restricts work space. Practitioners must deal with patient anxiety, business pressures and inevitable treatment failures.

There are also societal demands on the dentists' time. The nature of private dental practice, especially in smaller cities and towns, places demands for community service upon the dentist. The dentist (like the physician and minister) are, by virtue of their education and the nature of their work, under close public scrutiny. Their business, if there is any competition, is dependent upon public goodwill. Therefore, community service is necessity for most small town dentists.

PERCEIVED SELF-COMPETENCE

Associates for Research in Behavior, Inc., of Philadelphia, in a recent survey compiled the following data:[19]

QUARTILE DISTRIBUTION OF RANK-ORDERED TOPICS IN TERMS OF PERCEIVED SELF—COMPETENCE

First Quartile

Operative Dentistry
Crown and Bridge
Complete Dentures
Radiology
Partial Dentures
Preventive Dentistry

Second Quartile

Endodontics
Oral Medicine and Therapeutics
Anesthesia
Oral Surgery
Pedodontics
Dental Office Emergencies

Third Quartile

Oral Pathology
Oral Rehabilitation
Periodontics
Practice Administration
Mental Health of Dentist

Fourth Quartile

Expanded Utilization of the Auxiliaries
Hospital Dentistry
Team Practice
Orthodontics
Dental Public Health

QUARTILE DISTRIBUTION OF RANK-ORDERED TOPICS IN TERMS OF COURSE INTEREST FOR CONTINUING EDUCATION

First Quartile

Dental Office Emergencies
Crown and Bridge
Oral Medicine and Therapeutics
Practice Administration
Preventive Dentistry
Periodontics

Second Quartile

Operative Dentistry
Endodontics
Oral Pathology
Oral Rehabilitation
Mental Health of Dentist
Partial Dentures

Third Quartile

Complete Dentures
Anesthesia
Radiology
Oral Surgery
Expanded Utilization of the Auxiliaries

Fourth Quartile

Periodontics
Orthodontics
Team Practice
Hospital Dentistry
Dental Public Health

QUARTILE DISTRIBUTION OF RANK-ORDERED TOPICS IN TERMS OF IMPORTANCE OF COURSE ATTENDANCE FOR CONTINUING EDUCATION

First Quartile	Third Quartile
Dental Emergencies	Radiology
Crown and Bridge	Partial Dentures
Practice Administration	Anesthesia
Oral Medicine and Therapeutics	Pedodontics
Periodontics	Oral Surgery
Operative Dentistry	
Second Quartile	**Fourth Quartile**
Preventive Dentistry	Expanded Utilization of the Auxiliaries
Oral Pathology	Orthodontics
Endodontics	Team Practice
Oral Rehabilitation	Hospital Dentistry
Mental Health of Dentist	Dental Public Health
Complete Dentures	

The perceived self-competence of the practitioner in comparison to course interest or importance of course attendance points out obvious realities.

In the adult, learning occurs here and now. It must coincide with the demands of the world of work. The working professional in dentistry tends to be goal oriented.

the dental school represents the most logical and able provider of quality participative continuing education experiences. Obviously, any plan for continuing education should be focused on the problems of office practice. Much work and research must be done to determine the most effective methods to evaluate the private practice dentist's educational needs in relation to his practice. The present methods are just beginning to address the problems.

SUMMARY

The many warnings of experts in continuing education and other educational fields attest to the facts that continuing dental education does not change the behavior of dentists at the present time and that continuing dental education as presently utilized is a baseline on which to build a program for improving the translation of knowledge courses into performance-based courses.

There is almost universal agreement among educators that practicing dentists should be tested on problem solving ability and not on memory. The change to be effective must be based on assuring the continuing competence of the practicing dentist. Change should be properly guided and managed so that it will be beneficial to the public good.

The essence of education is a specific identification of needs based on clinical situations with subsequent introduction of educational efforts directed toward those needs.

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LOST VALUES

I have great fear that this noble profession of dentistry is regressing into a craft and trade system. The finer concepts of service and dedication which were held up to me when I started out forty years ago seem to have disappeared. I often wonder how this happened. I think it was the loss of the influence of good example to younger dentists. That there is no glory in handing down to the following generation a torch whose flame has gone out seems not to be of concern. Such detachment seems to be the mode of the day in all aspects of our present ways. There is no patriotism as there once was, no commitment, no dedication, no pride in the acknowledgement of one's legacy or heritage. The values are gone.

Robert J. Nelsen

From a letter to William R. Alstadt

CORRECTION

In the last issue, Dr. Arthur C. McFeaters was incorrectly identified as president of the Pennsylvania Dental Association. He is president-elect this year.

(Continued from page 192)

University of Pittsburgh School of Dental Medicine spoke on "Our Schools. Do they fulfill the role of maintaining the true professional faith?" Milton E. Nicholson spoke on "Recovery of mental and moral force."

The next meeting of the Section will be a breakfast meeting on Thursday, September 4th, during the Three Rivers Dental Meeting.

Metropolitan Washington Section

A breakfast symposium for the junior and senior dental students of Howard University and Georgetown University Dental Schools was held during the D.C. Dental Society's Spring Postgraduate Meeting under the co-sponsorship of the D.C. Dental Society and the Washington Metropolitan Section of the American College of Dentists. Over 260 dental students and their guests attended and heard a discussion of "Your First Office From the Perspective of the Recent Graduate." Dr. Richard Grossman, a private practitioner from Kingston, Pennsylvania, presented a paper on various aspects involved in beginning a private practice, and Lieutenant Commander William Boyd, DC, USN, from the National Naval Dental Center, Bethesda, Maryland, provided information on the early years in institutional practice. A surprise guest speaker was Mr. Joe Thiesman, quarterback of the Washington Redskins. Mr. Thiesman gave an inspirational talk that set the stage for a most productive and informative symposium.

NEWS OF FELLOWS

Seymour L. Nash, New York City, Executive Director of the Dental Society of the State of New York, has been elected to honorary membership in the American Association of Oral and Maxillofacial Surgeons.

Four Fellows of the American College of Dentists have recently been elected officers of the Chicago Dental Society.

They are **LeRoy D. Levey** of Skokie, Illinois, president; **James H. Ridlen,** Hinsdale, Illinois, president-elect; Richard A. Kozal, Palos Park, Illinois, secretary; and **Irwin B. Robinson** of Chicago, vice-president.

Robert J. Nelsen, retiring Executive Director of the College has been named chairman of the Commission on Public Education on Radiation of the National Council on Radiation Protection and Measurements. Dr. Nelson is also a member of its Council on Budget and Finance and chairman of Scientific Committee 16 on Dental X-Ray Protection.

Charles G. Lewis of Muleshoe recently was installed as president of the Texas Dental Association.

Robert D. Splain, Washington, D.C., orthodontist, was honored with the American Association of orthodontists' Distinguished Service Scroll at the association's meeting in Washington recently, in recognition of his contributions and services to the organization and its membership.

Honorary Fellow, **Walter E. Brown,** Director of the ADA's Health Foundation Research Unit at the National Bureau of Standards, has been awarded the Research in Biological Mineralization Award for his work on the crystal chemistry of mineralized tissues and calculus, by the International Association for Dental Research at its annual meeting in Osaka, Japan.

Thomas Cooper of Lexington has been named associate dean for academic affairs at the University of Kentucky College of Dentistry.

Dudley H. Glick, clinical professor of endodontics at the University of Southern California School of Dentistry, has been elected president of the American Board of Endodontics.

Charles A. McCallum, Jr., of Birmingham Ala., is the 1980 recipient of the William J. Gies Award in Oral and Maxillofacial Surgery.

Samuel Pruzansky, of the University of Illinois at the Medical Center, Chicago, was elected to honorary membership in the Chicago Pediatric Society.

Rocco J. DiPaolo, professor and chairman of the Department of Orthodontics at Fairleigh Dickinson University's School of Dentistry, Teaneck, N.J. recently received the University's Leadership Award, in recognition of his achievements in and dedication to the field of orthodontic education.

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The Objectives of the American College of Dentists

The American College of Dentists in order to promote the highest ideals in health care, advance the standards and efficiency of dentistry, develop good human relations and understanding and extend the benefits of dental health to the greatest number, declares and adopts the following principles and ideals as ways and means for the attainment of these goals.

(a) To urge the extension and improvement of measures for the control and prevention of oral disorders;

(b) To encourage qualified persons to consider a career in dentistry so that dental health services will be available to all and to urge broad preparation for such a career at all educational levels;

(d) To encourage, stimulate and promote research;

(e) Through sound public health education, to improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient;

(f) To encourage the free exchange of ideas and experiences in the interest of better service to the patient;

(g) To cooperate with other groups for the advancement of interprofessional relationships in the interest of the public; and

(h) To make visible to the professional man the extent of his responsibilities to the community as well as to the field of health service and to urge his acceptance of them;

(i) In order to give encouragement to individuals to further these objectives, and to recognize meritorious achievements and potentials for contributions in dental science, art, education, literature, human relations and other areas that contribute to the human welfare and the promotion of these objectives — by conferring Fellowship in the College on such persons properly selected to receive such honor.

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