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BEHAVIORAL SCIENCES AND DENTISTRY: A WORKING MARRIAGE*

ABSTRACT: This article describes a model of interpersonal training for dentists in which counselors have been involved. The authors discuss the need for such training and an approach to it developed at the University of Florida. This approach is based on the Carkhuff model for interpersonal training with variations to adapt it to the special needs of dentists.

New Trends in Dentistry

The main emphasis in dentistry is changing from a primarily technical operation to an increasingly personal service. More succinctly expressed by Walsh (1966), "Dental education and practice is moving from a two-dimensional concept based on technology and science into a third personal or psychosocial dimension (p. 480)." This transition is in part made possible by the delegation of many of the dentist's technical duties to auxiliary personnel. Consequently, the dentist is now finding himself able to spend more of his energies in the interactive aspects of his profession like motivating, consulting, and educating, not only his patients and staff, but the public at large. Increase in the size of the staff also increases the demands for his effective communication

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as team leader, teacher, and consultant. Not only must the dentist be able to guide the treatment process as delivered by his auxiliaries, but he must also be able to facilitate positive interpersonal dynamics within the team and be able to deal constructively with conflicts should they arise.

The flourishing of preventive dentistry, as well as treatment dentistry, requires that the dentist expand his concept of health beyond the dental office. To conduct and engage in a community program, whether it be information- or treatment-oriented, the dentist must again acquire an adequate understanding of group dynamics and be adept in relating to individuals of all walks of life, and not just those who might be self-motivated to seek dental services.

Research in dentistry indicates that a healthy dentist-patient relationship, based on communication and understanding, enhances the patient's degree of motivation and cooperation as well as his trust in the dentist (Allan & Hodgson, 1968; Crowley, Klebanoff, Singer, & Napoli, 1956; Deneen, Heid, & Smith, 1973). In addition, a number of studies conducted on the psychological control of pain through relaxation and hypnosis indicates that a good personal relationship between the dentist and patient is essential for the effectiveness of these techniques. A good interpersonal relationship helps reduce the amount of pain anticipated and, consequently, the amount experienced (Barber, 1963; Mackenzie, 1968).

Being able to communicate adequately and build healthy interpersonal relationships effectively is also extremely important should the student-dentist choose to become a dental educator upon graduation (Mackenzie, 1967). "A meaningful learning experience depends greatly on the degree of communication between the teacher and the learner (Field, 1971, p. 306)." According to Rogers (1961), significant learning may take place if the teacher can accept the student as he is and understand his feelings as a unique individual. Rigid interpersonal communication and behavior between the student and instructor robs the recipient of his individuality and does not generate the trusting and caring climate conducive to an optimal learning experience. In addition, competency in interpersonal skills assists the dentist in making referrals and consulting with other professional agencies or individuals. It is evident, thus, that a proficiency in interpersonal communications is greatly facilitating for a dentist in performing his functions as a professional, team leader, patient motivator and educator, community resource, and dental-school instructor.

Because of the demands made on practising dentists in interpersonal communication, attention must be given to the way in which a dentist can acquire such necessary skills. The most obvious approach is to incorporate instruction in effective interpersonal communication within his professional education (Kruper, 1971). Schools of dentistry all over North America are increasingly hiring counselors and other human relations experts to develop a relevant curriculum and carry out the educational process involved.

The main purpose of this article, then, is to stimulate thought and discussion among counselors who may be involved in similar activities

across Canada. The model of interpersonal training for dentists that we are presenting is not necessarily the best one. It is presented here for no other reason than that it is the one we have been involved with.

Training in Interpersonal Relationships

An approach to training in interpersonal communications for helpers described by Carkhuff (1972a, 1972b) is based on an application of response categories. Such training has been found to be effective in improving the interpersonal communication skills of counselors and psychotherapists (Carkhuff, 1969, 1972b; Carkhuff & Griffin, 1971) as well as those of persons in other helping professions and in the general public (Aspy, 1969; Berenson, 1971). Griffin and Banks (1969) found specifically that teachers trained in "facilitative" communication developed better interpersonal relationships with their students and thus favorably influenced their motivation and their academic achievement levels.

This model for training in interpersonal communication has also been successfully used with parents of emotionally disturbed children, (Carkhuff & Bierman, 1970), with attendants in a mental hospital (Carkhuff & Truax, 1965), and even with psychiatric patients who were trained to be "self-helpers." These patients showed significantly more improvement than those in groups who received different treatment (Pierce & Drasgow, 1969). Another interesting investigation was the application of the training procedures with prison guards (Hall, 1970; McGathlin & Porter, 1969). The most notable results of training the guards in interpersonal skills was a general lessening of tension and of outbreaks of violence in the prison.

The large number of research studies cited above gives some indication of the effectiveness of Carkhuff's technique in improving interpersonal communication skills. The diversity of people and occupations represented in these studies tends to demonstrate the generalizability of the technique to other areas.

Application in Dental Education

It seems well-founded to assume that if such a technique based on facilitative responses is effective in improving interpersonal communications of many other professions, it would also be effective for dentistry. Consequently, an approach based on this model in interpersonal skills training has been adopted by the University of Florida College of Dentistry.

One module entitled "Interpersonal relationships in the practice of dentistry" is devoted to this training. In this module, the student is introduced to learning theory principles including respondent and operant conditioning, shaping, transfer of learning, age-related behavior, social and cultural considerations of importance to dentistry, and elements of good interpersonal communication. Although there are many sections to this module, we will elaborate here only on that section that deals primarily with interpersonal skills.

There are two pre-tests for the submodule, an inventory and a videotape. The Dentist Response Preference Inventory (Ganikos & Espin, 1973), based on the categorization of responses in Table I and on

Lister's Counselor Response Preference Inventory (Lister, 1973) consists of 40 forced-choice items in which a patient's or auxiliary's statement is given as a stimulus and the student-dentist must select whether he or she would typically respond as Dentist A or as Dentist B. The inventory is designed in such a way that each one of the five response types of the response classification is paired with every other response for a total of 40 items.

The following two examples are taken from the inventory:

Patient: "I know it would be good if I'd brush after lunch at school, but I usually forget or don't have time."

Dentist A: "I think you're really just afraid of what your friends would say. They might think brushing at school is a strange thing to do and you'd feel silly or something."

Dentist B: "Sometimes it can be hard to begin a new habit until you really get in the swing of things (p. 3)."

Auxiliary: "Doctor, I've got George Smith in room 2 and he will absolutely not cooperate! I can't even begin to make x-rays! I just don't know what to do."

Dentist A: "What is it that he's doing?"

Dentist B: "It seems like it's getting somewhat frustrating for you (p. 4)."

From this inventory base-line, data regarding the students' pre-instructional communication styles and techniques can be obtained. Similarly, a video-taped role-playing session is utilized to obtain base-line data on a performance rather than a paper-and-pencil level.

The role playing for the videotape mentioned above is staged in a University of Florida Dental Clinic operatory, in order to more realistically simulate an actual on-the-job situation. During this time, one of the instructors of this module role-plays a patient exhibiting difficult behavior or attitudes that a dentist might encounter in his or her practice. No actual clinical treatment is performed as the unit of instruction focuses exclusively on interpersonal behavior and communication. Each student is provided with his or her own audio-visual cassette which may be kept and added to while continuing the interpersonal skills training which is incorporated into subsequent modules.

Five seminars of approximately three hours each are devoted to the training of small groups of dental students in interpersonal communication. In brief, the principles covered include the rationale of person-centered communication principles, attending behavior, the concepts of constructive feedback and confrontation, self-disclosure, problem ownership, and non-verbal as well as verbal aspects of communication with special attention given to facilitative responding techniques.

During the first three-hour block, the instruction is focused on attending behavior and verbal communication techniques which would enhance the development of rapport and empathy. The students are presented with five different verbal response patterns based on Rogers' and Carkhuff's principles and techniques including statements which are: 1) evaluative or advice giving, 2) interpretive, 3) supportive or

TABLE 1*

EVALUATIVE	:	A response that indicates that the dentist has made a judgement of the relative goodness, appropriateness, effectiveness, or "rightness" of the patient's concern. The dentist has in some way implied that he knows what the patient or auxiliary might do or ought to do. The dentist has implied a judgement of the other individual's behavior.
INTERPRETIVE	:	A response that indicates that the dentist's intent is to teach or to tell the patient or auxiliary what his problem means or how the patient or auxiliary "really" feels about the situation. The dentist has implied what the patient ought to think and feel.
SUPPORTIVE	:	A response that indicates that the dentist's intent is to reassure or pacify, to reduce the patient's or auxiliary's intensity of feelings or deny the importance of the problem. The dentist is implying that the patient or auxiliary need not feel as he does.
PROBING	:	A response that indicates that the dentist's intent is to seek further information, to initiate discussion along certain lines, or to question the patient or auxiliary. The dentist is implying that the patient or auxiliary might profit from further discussion with the dentist.
UNDERSTANDING	:	A response that indicates that the dentist's intent is to find out whether he correctly understands what the patient or auxiliary is saying, how the patient or auxiliary sees the problem. The dentist gives the impression that he is understanding the problem from the patient's or auxiliary's point of view.

*Modified from Johnson, 1972.

reassuring, 4) questioning or probing, and 5) understanding, clarifying, or reflective (see Table 1). These types of statements are discussed in terms of such things as their appropriateness to different situations, their impact on the receiver, their "person-centeredness," the facilitative quality of each type, etc. The student practises differentiating among the five verbal response categories and is given time during class to practice making each of the responses, with special concentration given to those which are considered on the basis of research to be more person-centered and facilitative. It is the feeling of the instructors that the opportunity to practice these skills in a controlled situation before beginning actual clinical experience is most important as it has not been uncommon for the students to report feeling "uncomfortable," or "phony" when initially responding in a "learned" fashion. The continued practice seems to facilitate the students' capacity to more readily and comfortably adopt these new responding patterns as a natural and flowing manner of relating.

The second three-hour period is divided into individual 30 to 45 minute conferences during which each student meets privately with one of the instructors to review his or her pre-tape in the light of the

new material learned in facilitative person-centered communication. The student is given the opportunity to critique his or her own tape using the instructor as a resource person, consultant, or sounding board.

The last three seminars cover other principles of facilitative communication such as constructive confrontation, feedback, and self-disclosure. Again, the concepts presented didactically are reinforced through simulated experiences designed to complement, demonstrate, and support each principle discussed. Each topic is presented using dental examples and situations with an effort to maximize the relevancy and the interest level for dental students.

The authors in no way propose this as a model program, nor do we claim that this is even a final product for our own institution. The description of this program is presented, as mentioned before, in the hope of stimulating more interest in the vastly important area of interpersonal communication in dentistry. It is hoped the material presented will serve as a point of departure for furthering the creative efforts of counselors to develop new applications of their professional skills.

RESUME: Cet article décrit un modèle de formation aux relations interpersonnelles pour dentistes dans lequel ont participé des conseillers. Les auteurs discutent du bien-fondé d'un tel entraînement et de l'approche qu'on a élaboré à l'Université de la Floride. Cette approche est basée sur le modèle de Carkhuff avec des variations adaptées aux besoins particuliers des dentistes.

REFERENCES

Allan, T. K., & Hodgson, W. The use of personality measurements as a determinant of patient co-operation in an orthodontic practice. *American Journal of Orthodontics*, 1968, 54, 433-440.

Aspy, D. The effect of teacher-offered conditions of empathy, positive regard, and congruence upon student achievement. *Florida Journal of Educational Research*, 1969, 11, 39-48.

Barber, T. X. The effects of hypnosis on pain: A critical review of experimental and clinical findings. *Psychosomatic Medicine*, 1963, 25, 303-333.

Berenson, D. H. The effects of systematic human relations training upon the classroom performance of elementary school student teachers. *Journal of Research and Development in Education*, 1971, 4, 70-85.

Carkhuff, R. *Helping and human relations*, (Vols. 1 & 2). New York: Holt, Rinehart and Winston, 1969.

Carkhuff, R. The development of systematic human resource development models. *The Counseling Psychologist*, 1972, 3, 4-11. (a)

Carkhuff, R. New training for the helping professions: Toward a technology for human and community resource development. *The Counseling Psychologist*, 1972, 3, 12-30. (b)

Carkhuff, R., & Bierman, R. Training as a preferred mode of treatment of parents of emotionally disturbed children. *Journal of Counseling Psychology*, 1970, 17, 157-161.

Carkhuff, R., & Griffin, A. H. The selection and training of functional professionals for concentrated employment programs. *Journal of Clinical Psychology*, 1971, 27, 163-165.

Carkhuff, R., & Truax, C. B. Lay mental health counseling. *Journal of Consulting Psychology*, 1965, 29, 426-431.

Crowley, R. E., Klebanoff, S. G., Singer, J. L., & Napoli P. J. Relationship between personality factors and co-operation in dental treatment. *Journal of Dental Research*, 1956, 35, 157-165.

Deneen, L. J., Heid, D. W., & Smith, A. A. Effective interpersonal and management skills in dentistry. *Journal of the American Dental Association*, 1973, 87, 878-888.

Field, M. Student growth and the clinical teacher. *Journal of Dental Education*, 1971, 35, 306-307.

Ganikos, M. L., & Espin, O. M. *Dentist response preference inventory*. Unpublished manuscript, University of Florida, 1973.

Griffin, A. H., & Banks, G. Inner-city workshop for better schools. *American International College Alumni Magazine*, Fall, 1969.

Hall, R. Atlanta correctional and industrial counseling: First annual report. Washington, D. C.: Federal Bureau of Prisons, 1970.

Johnson, D. *Reaching out*. Englewood Cliffs, N.J., 1972.

Kruper, D. C. Behavioral science teaching in dental schools. *Journal of Dental Education*, 1971, 21, 293-295.

Lister, J. L. Personal communication, 1973.

Mackenzie, R. S. Impact of society on dental practice and dental education in 1980. University of Pittsburgh, 1967 (Mimeographed).

Mackenzie, R. S. Psychodynamics of pain. *Journal of Oral Medicine*, 1968, 23, 75-84.

McGathlin, W., & Porter, T. The effects of facilitation training provided officers stationed at the Atlanta Federal Penitentiary. Washington, D.C.: U.S. Justice Department, 1969.

Pierce, R. M., & Drasgow, J. D. Teaching facilitative interpersonal functioning to psychiatric inpatients. *Journal of Counseling Psychology*, 1969, 16, 295-298.

Rogers, C. R. *On becoming a person*. Boston: Houghton-Mifflin, 1961.

Walsh, J. New trends in dental education. *International Dental Journal*, 1966, 16, 480-489.