INTERDISCIPLINARY EDUCATION: IDEALISM AND REALISM

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INTRODUCTION

Interdisciplinary practice takes place when two or more practitioners in two or more interdependent fields of learning work together to achieve a particular goal (Falck, 1977). There are many advantages to this type of practice for both client and practitioner: increased range of knowledge and skills, holistic care, simplified access to services, shared guilt, enhanced communication, common performance standards, and integrated, comprehensive services (Leininger, 1971; Nagi, 1975; Elliott, 1977; Falck, 1977; Valletutti, and Christoplos, 1979; Wessel, 1981).

However, this type of practice must be learned as mutual adaptation to differences in roles, knowledge, goals, and techniques are involved (Beckhard, 1972; Falck, 1977; Attwood, 1978). Often, collaboration is expected from professionals who have not been taught the art of interdisciplinary team membership in their own schools (Leininger, 1971).

Interdisciplinary education is considered a sound approach to professional teamwork (Leininger, 1971; Elliott, 1977; Falck, 1977). However, many individuals may regard this primarily as an ideal. In reality, there are numerous barriers to such education, which must be acknowledged in order to be overcome. These include: absence of linking mechanisms between disciplines, skepticism of faculty members, absence of a common frame of reference, strong role conflicts, low commitment levels and little interaction between members from different faculties (Quartaro & Hutchinson, 1976; Attwood, 1978; Harris, 1978). Often faculty have to be convinced of the merits of interdisciplinary work (Ross & Schour, 1954).

The meritorious features of this type of education, cited in the literature, include: instillment of positive attitudes toward teamwork, creation of mutual understanding of other health disciplines, discovery of common areas of knowledge and competence, discovery of competencies unique to each discipline, improved ability to co-operate, and development of effective communication and problem-solving skills (MacDonald, 1974; Carlton, 1977; Fairweather & Law,

1978; Harris, 1978; Valletutti & Christoplos, 1979; McFarlane et al., 1980).

Students should have the opportunity to work with faculty and students from other disciplines early in their professional education to deter stereotyping of peer images (McCally et al., 1977; Venters & Ten Bensel, 1977). This interdisciplinary socialization process helps to prevent the friction, insecurity and hostility which can occur prior to identification with team members. These problems are often caused by fear of loss of professional identity and status, as well as value conflicts (Leininger, 1971; Jacobson, 1974; McCally et al., 1977; Venters & Ten Bensel, 1977).

We found that problems exist among faculty which must be overcome if an interdisciplinary approach is to be effectively implemented. This article describes the early phases of planning for interdisciplinary teaching within the Faculty of Health Professions at a Canadian university, and identifies faculty reactions to this proposed change.

BACKGROUND

The Faculty of Health Professions at this university consists of five schools: the School of Nursing, the College of Pharmacy, the School of Physiotherapy, the School of Physical Education, and the School of Human Communication Disorders.

In 1978, the Dean of Health Professions requested faculty to look at more effective means of using teaching resources so that increased time would be available for research and career development. One suggestion was the establishment of interdisciplinary education.

PLANNING PHASE

A task force was immediately set up to survey the interdisciplinary teaching expertise available, the limitations and the perceived needs of the faculty in all the schools. Its mandate also included determining the feasibility of "shared" courses. Three subject areas were identified by faculty as possible foci of interdisciplinary core courses: nutrition, research, and growth and development. Growth and development did not receive the same priority rating as the others, possibly due to the fact that only two schools included it within their curricula.

An advisory committee evolved from the task force in 1979. This committee enlarged the long-term objective of saving of faculty time to include integration of students at the undergraduate level and integration of faculty representing the different disciplines.

The committee prepared tentative interdisciplinary core course outlines for two of the three suggested subject areas — nutrition and research. This task involved several steps. Initially, current course outlines for these subjects were obtained from each school to identify theoretical content common to all five schools. Specific information was requested from the faculty members teaching these courses at that time. They were asked to give the recommended hours per topic, subject prerequisites, expected outcomes, and evaluation processes. The interdisciplinary outlines which were then developed were submitted to the individual content specialists (faculty members teaching the specialized subject) for feedback, before presentation to full faculty.

IMPLEMENTATION PHASE

In 1980, the committee focused on the logistics of implementing interdisciplinary teaching, placing particular emphasis on the research course. Two factors influenced this decision. More faculty members were involved in teaching research methodology than nutrition, and the major content specialist for nutrition was on sabbatical leave.

A. The Questionnaire

To determine the practical implications of implementation of interdisciplinary teaching per se, the committee developed a questionnaire (Table 1). This asked for faculty reactions to the committee's long-term objectives, and for personal concepts of interdisciplinary education, numbers of students, percentages of students per discipline, teaching methods, and required changes.

The questionnaire was circulated to 18 faculty members in the Faculty of Health Professions who were identified by the task force as having experience in interdisciplinary teaching. It was also distributed to five deans of faculties outside the Faculty of Health Professions.

The questionnaire was then sent to the Deans of Health Professions of four other Canadian universities. These universities had been identified as having interdisciplinary courses or programs by the initial sample of 18 faculty members. The deans were requested to have faculty members who were directly involved in interdisciplinary teaching complete the questionnaire. It was hoped that feedback from experienced interdisciplinary teachers could facilitate the committee's planning.

Table 1

Questionnaire

DATE:_____

I. General

Please fill in the following:

1.1 The University in which you taught/teach interdisciplinary course(s).

1.2 The subject area/course title.

1.3 Was the course specifically designed to attract students from other disciplines?

1.4 How many other faculty members were involved? What disciplines did they represent?

1.5 Do you know of any universities other than the one(s) identified in 1.1 which offer interdisciplinary courses?

II. Concept of Interdisciplinary Teaching

2.1 Based on your experience, please describe briefly your interpretation of the concept of interdisciplinary teaching.

III. Objectives

According to your interpretation of the concept of interdisciplinary teaching, does it:

a) reduce teaching time? Yes___ No___

Please explain.

b) promote integration of students at the undergraduate/graduate level? Yes___ No___

Please explain.

c) promote integration of faculty representing different health disciplines? Yes___ No___

Please explain.

d) promote interaction of students with faculty? Yes___ No___

Please explain.

IV. Students

4.1 How many students did you have in your interdisciplinary course?

4.2 Identify the percentage split of students representing each discipline.

_____
_____
_____

4.3 What number of students would you recommend as suitable for an interdisciplinary course?

V. Teaching Methodology

5.1 What teaching method(s)/tools did you use in your interdisciplinary course?

5.2 What teaching method do you think will facilitate interdisciplinary teaching/learning?

5.3 Did you find additional/unique methods essential to teaching a multidisciplinary as compared to a single discipline course?

VI. Evaluation

6.1 Please briefly outline the advantages of interdisciplinary teaching as you have experienced them.

6.2 Can you suggest changes necessary within the Faculty of Health Professions in order to make interdisciplinary teaching effective

VII. Other Comments

_____
(SIGNATURE)

B. Findings

Almost all of the questionnaires were returned. Responses were divided into groups: those from within the Faculty of Health Professions (92% response), and those from outside the Faculty of Health Professions (100% response from other universities; 70% response from other faculties within this university).

The respondents had a wide range of experience. They had taught in Canadian, American, British and Australian universities. The courses taught also varied, though most were health-related.

Table 2 gives a representative sample of responses to the questionnaire. For the purposes of this article, responses from all universities were combined. Ninety-five percent of the respondents stated that, although integration of students and sharing of faculty expertise were decided benefits of interdisciplinary education, faculty time was not always saved. While class teaching time and student contact hours might be decreased in the initial planning phase, faculty time requirements might be increased. Furthermore, the co-ordination and administration essential to this phase usually continued to demand considerable time investment from faculty throughout implementation.

The consensus was that the advantages of interdisciplinary education outweighted the disadvantages (Table 3), — that the concept had merit and that the Faculty of Health Professions could benefit from such an approach. It was generally acknowledged that enthusiastic commitment by both administration and faculty was essential. Faculty members believed that the co-ordinator of such a program had to facilitate collaboration and communication to create confidence that all disciplines had been fairly represented.

Table 2

REPRESENTATIVE SAMPLE RESPONSES TO QUESTIONNAIRE*

Personal Concept of Interdisciplinary Teaching
- teaching of core fundamental material to a heterogeneous group.
- teachers representing different disciplines contribute personal expertise to a common subject area for students representing either a single discipline or two or more disciplines.
- moving from a discipline to a task approach.

Teaching Time
- faculty time commitment can increase due to the collaboration necessary to facilitate planning, preparation, communication and adjustment.
- reduction of actual lecture time only.

Student Interaction
- learning the approach of other disciplines creates increased understanding of shared and unique roles.
- interdisciplinary teaching can function as a catalyst to interaction if there is a desire to be integrated.

Faculty Interaction
- promotes attitudes of respect and cooperation if communication lines remain open.
- receptive team work and consideration of different stances requires commitment.

Student-Faculty Interaction
- personal faculty style, presence of group structure, and size of classes are significant factors.
- course should be designed to promote interaction.

Student Numbers and "Mix"
- more students can be accommodated in lectures than in clinical practice/laboratory/problem solving group components.
- equal percentages from each discipline involved may decrease resistance and scapegoating.

Teaching Methodology
- teaching methods and tasks are fundamentally no different from those of traditional courses.
- unique feature is level of conceptualization and extraction of coherence required.
- opportunity must be provided for interdisciplinary group discussion and for each discipline to develop its own perspective.

* This material is taken from responses to the questionnaire.

Table 3

ADVANTAGES AND DISADVANTAGES OF
INTERDISCIPLINARY EDUCATION*

Advantages

- variety of professors can offer different areas of strength, thus providing a "better" course.
- provides higher levels of expertise, fresh insights, valid but different perspectives.
- reduces teaching load if duplication is present.
- students learn about each other before stereotyping takes place.
- reduces interprofessional conflicts.
- provides awareness of baseline information available to all groups.

Disadvantages

- tremendous time investment. Research output may suffer.
- lack of full autonomy may lead to a reduction of each participant's commitment.
- unless faculty are committed, the course will not be successful.

* This material is taken from responses to the questionnaire.

AMBIVALENT REACTIONS OF FACULTY TO THE PROPOSED PROGRAM

Content Specialists

Committee members met with the content specialists for research from each school to discuss the feasibility and logistics of implementing an interdisciplinary undergraduate course in this particular subject. The content specialists had submitted an outline of the courses they taught in 1979 to the committee and had expressed strong approval of interdisciplinary education. At that time, committee members had agreed that while there were many differences in these courses the basic principles of scientific inquiry were common to all. There was a consensus that the major focus at the undergraduate level should be the ability to critique research and the interdisciplinary course outline was designed to reflect this. Content specialists had had the opportunity to review the proposed research methodology course

outline and no major concern was identified. Content specialists expressed the belief that students would benefit from the contact with other students in health professions schools, as well as from the availability of expertise from the other disciplines. Furthermore, there would be a breakdown of barriers among faculty as well as students from the various health disciplines which would augment their knowledge about each other's strengths and weaknesses. The interaction and socialization benefit for students were not questioned.

Later at the time of the organizational meeting, it became evident that there were diverse reactions to the concept of teaching a core course in Research Methodology within the Faculty of Health Professions. Each content specialist identified a number of obstacles. For instance, the School of Nursing had spent several years establishing and developing an integrated curriculum. The content of the proposed core course had been 'leveled' throughout the four year program. The curriculum would have to be extensively reorganized if an interdisciplinary core course was to be offered in the final year. Another major barrier was the growing numbers of students. It was anticipated that within three years, there would be about one hundred students in fourth year, all of whom would be required to take the course. These content specialists further maintained that this course should be 'geared' toward clinical application. One solution was proposed for these problems — small interdisciplinary seminar groups and adjunct labs for each profession; however, this was considered too costly in terms of faculty time.

Additional obstacles were noted by content specialists from the other disciplines. One stated that the research course in her school was quite different from other schools and that the course should not be taught as an interdisciplinary subject at the undergraduate level. Another maintained that his students would not be interested in an interdisciplinary approach. He proposed an option to establish an undergraduate course in statistics or a graduate research course. Yet another said that there was no advantage in pursuing other interdisciplinary possibilities within the research methodology context. He believed that students should be encouraged to take electives from other schools in topics of common but not universal interest (e.g. occupational health).

The major problems cited centered on the presentation of discipline-specific examples, which would lose impact when dealing with a heterogeneous group.

Committee Members

The members of the advisory committee expressed commitment not only to the committee's goals but to their own school's reaction to the suggested program. Their enthusiasm changed as problems arose and were either overcome or accepted. They began to recognize that the reality was indeed different from the ideal and that compromises were necessary.

Reactions of various schools indicated that there would be no advantage in implementing a research methodology course with an interdisciplinary approach at the undergraduate level. The different schools within the Faculty of Health Professions seemed to have their own specific needs and interests. They maintained that it would be difficult to provide the benefits of interdisciplinary teaching without losing the objectives of specific professional groups.

A few committee members suggested that an area of content not previously offered within the Faculty of Health Professions on a large scale, such as Health Care Administration, Helping Relationship, and Gerontology, could form the basis of a unique and acceptable interdisciplinary course.

C. Discussion

It soon became apparent that the task of implementation would be far more difficult than that of planning. The problems that might be encountered in implementing interdisciplinary education in one of the suggested courses, research, outweighed the benefits. This indicated to the committee that in order to implement an acceptable interdisciplinary education program, it would be best initially to select an area of content not then offered in the Faculty of Health Professions.

We believe that four factors influenced the reactions of faculty to the proposed program:

Territorialism

A power struggle to protect individual rights, courses and job appeared to come into play when these were perceived to be threatened.

Elliott (1977) concluded that health professionals tend to maintain strong psychic ties with external reference specialty groups that inhibit the development of team loyalty and create role conflict. Even when the concept of interdisciplinary teaching is philosophically accepted, it is difficult for faculty to overcome their own professional identity 'hang-ups' concerning roles and responsibilities (Harris, 1978; Quartaro, 1976). Faculty at this university appeared to be experiencing exactly those problems — problems which interdisciplinary teaching is designed to prevent. Professional 'turf-guarding' existed.

Survey respondents from this university and other ones contacted indicated that commitment to interdisciplinary teaching must involve philosophical appreciation of the values of other scholarly endeavors and ability to trust and use the expertise of various disciplines. Lack of full autonomy of individual professors was identified as a potential problem.

While the attitudes expressed concerning the research course could probably be applied to any interdisciplinary offering, the specific threat inherent in teaching a research course might have been a relevant factor. Research may be perceived as something so fundamental to the profession that it should not be shared with other disciplines. Schlotfeldt (1981) claims that only highly qualified professionals have the requisite competence to direct their discipline's research.

Resistance to Change

The universal tendency to accept and protect the status quo was undoubtedly a factor in faculty resistance. Resistance to proposed change increases to the degree to which it is perceived as a threat to livelihood or position and as a result of direct external pressure. Continued communication is essential for any innovation to succeed (Klein, 1976; Meleis & Burton, 1981). Confusion may have arisen from the fact that the terms, "core curriculum" and "interdisciplinary education", have been used interchangeably (National Commission on Allied Health Education, 1980). Research was seen to be core material and therefore amenable to an interdisciplinary teaching approach by the committee members, but not by the content specialists. Perhaps perceived lack of preparation and information on interdisciplinary education may have also influenced faculty attitudes. The change which had previously been considered ideal, now entailed additional work and collaboration with others.

The time commitment to other courses and activities can militate against participation in a formalized team activity (Harris, 1978). All respondents in the survey agreed that the tremendous amount of time involved in receptive teamwork, and in professionally reviewing new issues and developments in other professions might be incompatible with the demands for scholarly career development.

Traditional scholarly endeavors may suffer temporarily during the planning phases. The threat of research and "publish or perish" phenomena associated with tenure and promotion should not be ignored. The teaching of new and innovative courses which demands investment of time may not be viewed by the faculty involved as

realistic priorities. Faculty from all universities contacted agreed that the additional workload an interdisciplinary course would create must be recognized in the evaluation of performance and that a mechanism should exist whereby credit is attached to this work. Furthermore, administrative support, resource provision, practical encouragement and permission to work outside the individual department boundaries were considered vital structural components of any successful interdisciplinary endeavor. Incentives must be linked to implementation efforts within a discipline oriented academic unit (Klein, 1976).

Reality "Shock"

The negative reactions, particularly of those directly affected, increased as implementation became imminent. This term "reality shock" is used in a different context than that used by Kramer (1974) when she described the difference between value system expectations and reality. However, she identified "protective isolationism" or a dependency on people who hold the same values; this phenomenon was evident in our university. According to Kramer (1974), self-confidence in ability is one of the major prerequisites for making a smooth transition from school to work settings. This self-confidence appeared to be lacking in this experience. Certainly some role "ignorance" and conflict were present. Fear of erosion of role boundaries was undoubtedly also a factor (Milne, 1980).

Distancing

Faculty deferred responsibility for the program by recommending that courses be selected for an interdisciplinary approach other than the ones in which they were directly involved. Thus interdisciplinary teaching was thought to be ideal for someone else. The contrast between questionnaire responses and content specialist reactions clearly illustrated this paradox. The reluctance to participate in collaborative efforts is perhaps related to the finding that most interdisciplinary activity has been carried out on a departmental project basis with outside funds. Therefore, programs have been developed by project staff rather than faculty and rarely become an integral part of curricula (National Commission on Allied Health Education, 1980).

CONCLUSION

Although interdisciplinary teaching is a popular concept, faculty commitment is essential to its success. The goals of interdisciplinary education will only be obtained if each discipline of the Health Professions is convinced that the benefits are at least equivalent to the costs. Any gains, however, depend on the collaborative efforts of all the schools involved.

A period of time and opportunities should be provided to the faculty involved to explore and define their territories, to develop understanding and communication. By doing so, the built-in prejudice of faculty members could be overcome to the point that they could function as team members. Furthermore, they could be convinced that the value of interdisciplinary education revolves primarily around learning rather than teaching. Further study of interdisciplinary education is needed to evaluate its effectiveness and to analyse the factors which influence faculty reactions.

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RÉSUMÉ

L'enseignement pluridisciplinaire:
idéalisme et réalisme

Le présent article traite des premières phases de la planification de l'enseignement pluridisciplinaire à la faculté des professions de la santé d'une université canadienne et il énumère les réactions du corps enseignant aux changements proposés. Afin de connaître les conséquences pratiques de la mise en oeuvre d'un programme d'enseignement pluridisciplinaire, on a conçu un questionnaire pour déterminer les réactions du corps enseignant aux objectifs triples d'un tel programme (intégration des étudiants et du corps enseignant représentant différentes disciplines et économies de temps pour le corps enseignant), les concepts individuels de ce type d'enseignement, le nombre d'étudiants, le pourcentage d'étudiants et de professeurs par discipline et les méthodes d'enseignement. Ce questionnaire a été remis à 18 professeurs possédant les connaissances voulues, aux doyens de cinq facultés en dehors de la faculté des professions de la santé, et aux doyens des professions de la santé de quatre autres universités canadiennes connues pour dispenser des programmes d'enseignement pluridisciplinaire. Quatre-vingt-quinze pour cent des répondants ont indiqué que si l'intégration des étudiants et la répartition judicieuse des professeurs constituaient des avantages manifestes, le temps d'enseignement des professeurs n'en était pas pour autant réduit. Malgré l'appui généralisé accordé à ce type d'enseignement, on a noté des réactions mitigées de la part des spécialistes du contenu de ce genre d'enseignement. Ceux-ci ont incriminé quatre facteurs, à savoir le territorialisme, la résistance au changement, le choc de la "réalité" et la distanciation. La participation des professeurs est manifestement obligatoire. C'est pourquoi, afin de briser cette résistance, on a recommandé des centres d'intérêt précis, une période d'orientation et la désignation d'un coordonnateur dynamique.

A DEVELOPMENTAL PERSPECTIVE ON THE NURSING DIAGNOSIS OF FEAR AND ANXIETY

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*A Response to "Nursing Diagnosis: Differentiating Fear and Anxiety",
by Dorothea Fox Jakob and Phyllis Jones* *

Jakob and Jones are to be applauded for the clinical base in which their research is couched for it is here that the ultimate answers to the question they pose lie. Having been faced with a parallel conundrum in trying to define and differentiate between stress and strain (Burke, 1978), may I suggest that the nursing usages of fear and anxiety will probably be somewhat unique and thus not completely consistent with conceptualizations found in the various theoretical camps of other disciplines. Having learned what we can from our colleagues in other fields we must move to make our own definitions as Jakob and Jones are doing.

This response to "Nursing Diagnosis: Differentiating Fear and Anxiety", will be limited to what developmental theorists, researchers and experts on the nursing of children can offer in the clarification of the relationships between fear and anxiety. This exploration has generated an additional hypothesis, expanded the range of nursing interventions and provides some possible strategies for clinicians.

SEQUENTIAL DIFFERENTIATION IN THE DEVELOPMENT OF EMOTIONAL RESPONSES

From the work of theorists who subscribe to the theory of sequential differentiation in the development of emotional responses, an additional tantalizing hypothesis on the relationship between anxiety and fear can be generated. These theorists believe that all emotions are elaborations of the only two (or perhaps four) emotional systems which are present at birth (Dunn, 1977). Thus, it is possible to deduce that anxiety appears earlier than fear and as such is a more primitive

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emotional response. Fear would logically be one of the elaborations or developmental sophistications of anxiety.

Dunn's *Distress and Comfort* (1977, p.36) chronicles emotional response development through infancy. Her research and her reviews of others' works lead her to conclude that young babies react to sets of stimuli (of the type Jakob and Jones class as innate) with *distress*. At about five months, a *wariness* evolves which is based on the lack of congruence with that which is familiar in the baby's environment. Finally, at about one year of age, a wider range of experiences and cognitive abilities enable the baby to respond with *fear* grounded in specific associations (Bronson, 1972). The latter response would begin to encompass the authors' second set of learned sources of fear. It is not difficult to cast Bronson's distress and wariness as precursors of anxiety and the one year old's fear as the precursor of fear as conceptualized by Jakob and Jones.

ISSUES IN DEFINING NURSING DIAGNOSES

Definitions of fear and anxiety as diagnostic categories might be explored using the epidemiological criteria of specificity and sensitivity. This should result in less "noise" (inaccurate diagnosis of fear and anxiety) by reducing the rates of false positives (specificity) and false negatives (sensitivity).

The authors' original definition of fear seems more narrow than the National Conference definition. If this is the case, the Jakob and Jones's definition may not be sensitive enough to encompass all instances of fear. The list of specific sources of fear might be broadened to encompass any object or situation.

A recurrent theme in anxiety and fear research with infants, which may be helpful in defining anxiety, is the discrepancy between the expected and the observed (Mussen, Conger and Kagan, 1969) event or object. With the more mature cognitive abilities of older children and adults, the discrepancy notion could be generalized to include both expected and desired events and both real and perceived events. The authors' as well as the National Conference definitions of anxiety might be made more specific to the diagnosis of anxiety with the inclusion of the discrepancy element of the phenomenon.

Fear and anxiety have both a cognitive and an emotive component. If, as is hypothesized above, anxiety is the more primative response, then it would be logical to expect a larger element of emotion in the response. Conversely, fear may have a relatively larger component of cognition. This might help explain the authors' observation of the adult clients' apparent ability to verbalize fears.

CLINICIAN USAGES OF FEAR AND ANXIETY

The presominant North American culture's value of stoicism may offer a partial answer to the authors' query about nurses' apparent reluctance to diagnose fear. Lois Barclay Murphy has noted the prevalence of stoicism in her extensive analyses of children coping with their fears. She observes that this trend has increased in the generations since World War II (1962, p.181).

The OF Test

If we accept the Fourth National Conference on the Classification of Nursing Diagnosis definition of fear as being related to a specific source, then it is perhaps useful to apply the strategy coined here as the "OF Test". Indexes of texts on the nursing of children consistently, but not exclusively, listed fear as fear of pain, fear of loss of control, fear of anesthesia, etc.. Whereas the anxiety listings were more likely to reflect anxiety due to, in or related to situations. (Wieczorek and Natapoff, 1981; Whaley and Wong, 1979; Marlow, 1977). This may reflect the trend toward differentiation of fear and anxiety in the last 15 years noted by Jakob and Jones.

Thus, nurses might be able to apply the OF test to the data they have collected on their patients' distress. Where there is little or no cognitive awareness on the part of the patient or certainty on the part of the nurse regarding the cause of the distress, the diagnosis should be anxiety. The question that might be asked is, "Is this person anxious or does he have a fear of...?" If the blank can be filled the diagnosis is likely to be fear not anxiety.

It would appear that anxiety could be a provisional diagnosis which frequently assumes the nursing intervention of a search for a more precise source of the distress. This characterization of anxiety is consistent with the sequential differentiation theory discussed earlier.

The Immediacy and Consistency of Fear

Studies of the early fears of children suggest they are expressed both immediately and consistently (Dunn, 1977, p.36). It seems logical to deduce that similar criteria could be used to ferret out differential

diagnoses in adults. These criteria for the diagnosis of fear are particularly helpful to the nurse in diagnosing children where, contrary to Jakob and Jones's support of Graham and Conley, reliance cannot primarily be client statements. For children, behaviour obviously must be relied upon because of varying levels of language development due to age, developmental delay and regression seen in our young clients.

Hence, if the behaviour is consistently displayed upon exposure to or mention of a specific stresser, than the diagnosis would be fear of that particular stresser, such as injections, turning of a Stryker frame, losing control or crying during painful dressing changes.

Similarly, if the behavioural response, such as crying, physical withdrawal, questioning, fighting or swearing *immediately* occurs in association with a specific object or situation than the diagnosis is more likely to be fear.

Conversely, if the emotional reaction is less predictable as to when it occurs it may well be undifferentiated anxiety. When, even in the presence of the suspected cause of the distress, the response is erratic then the diagnosis might be more accurately anxiety.

A POTPOURRI OF NURSING INTERVENTIONS

The study of fear in children has generated a wide range of intervention strategies many of which would appear to have some applicability to adults. Before discussing the various strategies for coping with fear in children, anxiety intervention must be discussed.

If anxiety is primarily a provisional diagnosis as suggested here and by Jakob and Jones, then the most appropriate intervention will be aimed at further differential diagnosis. The AJN nursing intervention for anxiety presented by the authors is probably a reflection of earlier (1965) assumptions of greater overlap between fear and anxiety and, as such, is not consistent with the differentiation Jakob and Jones present.

The method most commonly used in health care settings with children is an explanation by an adult, plus gradual encouragement for the child's confrontation with the feared object or situation. These eclectic strategies with their conceptual roots in cognitive development and learning theory have been detailed in the classic work *The Emotional Care of the Hospitalized Child* (Petrillo and Sanger, 1980). The learning theory concept of extinction is used by pairing exposure to the feared objects or situations (masks, gowns, injections, dressing

changes and the like) with the pleasant associations with mother, peers or a trusted nurse. Simultaneously the child is socially rewarded for inhibiting the fear response. The cognitive element of this approach removes the element of the unknown and thus reduces in scope or number the objects or situations to be feared. Through adult and peer modelling, these strategies teach more mature responses to confrontations with the objects and situations feared.

Purer applications of extinction procedures are well documented to be effective by research. Mussen, Conger and Kagan reviewed successful extinction procedures with fears of white rats and the dark (1969, p.351).

Peer modelling from social learning theory has also had research demonstrations as reviewed by Roedell, Slaby and Robinson (1977). "Children may overcome long-standing fears by observing other children behaving courageously" (p.60). Initially fearful children become more willing to play with dogs, cheerfully undergo dental examinations or increase rates of social interaction through the use of peer modelling techniques.

Murphy's classic social interactionist studies in *The Widening World of Childhood* (1962) suggest an even more complex path toward dealing with fears in toddlers and preschoolers as a "combination of external rewards, self-esteem, status in the eyes of both adults and children, combined flexible support of her mother, contributing to the development of control which used stoical inhibition and temporary denial along with active solicitation of reinforcement through telling of her achievement" (p.181).

Although not based in research findings, it would be remiss if holistic approaches were not mentioned in this potpourri of nursing interventions. Burnside, Ebersole and Monea report on Jampolsky's unpublished work with children who had life threatening illness. The central notion was that eliminating fear would bring "inner peace". A loving, sensitive, non-judgemental, accepting environment was created where the children talked about fears of dying, imagined what it would be like to die and used mental imagery to come to terms with death (1977, p.162). With further documentation and research holistic approaches may yield some additional elements to the management of fear.

THE SPECIAL CASES OF SEPARATION AND STRANGER ANXIETY

It is beyond the scope of this response to the Jakob and Jones's paper to re-examine stranger and separation anxieties which are so pervasive

in the study of children. However, some caution is warranted in their use as anxiety in the sense of a nursing diagnosis. First, the concepts come to nursing from another discipline and, secondly, they were coined some years ago (Robertson, 1953 and Bowlby, 1961). As such, the fit with emerging uses of fear and anxiety by nurses may not be good. Furthermore, it is increasingly recognized that these responses are not universal, nor are the ages of onset and disappearance of the phenomenon as fixed as initially thought (Dunn, 1977).

CONCLUSION

It is clear that considerable progress has been made in sorting out the intricacies of the relationships between fear and anxiety. If definitive answers are slow in emerging, we are not alone as our colleagues in other behavioural disciplines are experiencing the same difficulties.

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