A STUDY OF FATHER BEHAVIORS MANIFEST AT THREE SPECIFIC PERIODS OF TIME DURING CLINIC VISITS TO A CHILD DEVELOPMENT CENTER

by

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DEDICATION

To my mother and father who held a strong value of good education for their daughter. It is with deep appreciate and love that I thank them for their love, energy, and personal investment made on my behalf.

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CHAPTER I

INTRODUCTION

Traditionally, studies related to child development emphasized only the mother-child interaction and its importance to the physical, emotional, and social growth of the child. The father was portrayed in a secondary and supportive role to the mother-child dyad and seldom was parenting distinguished from mothering. Rapoport (1977) points out that "When he (the father) did come into the picture it was usually from his wife's point of view, rarely from his child's, and until recently, almost never in terms of his own experience."

In recent years the role of the father has become more clearly defined and described in the literature, and his importance to his child's development explored and emphasized. This increased interest and study of fathering has resulted in a trend to move away from the assumption of unitary parenting toward that of shared parenting.

This movement toward shared parenting of the normal child has also stimulated interest in the father's roles and needs when a child with developmental deviation is present in the family. Currently, children with developmental disabilities are often remaining at home with their parents rather than being placed in institutions. This places added responsibility upon the family with a resultant potential for increased stress. Periodic visits to a health care facility providing multi-disciplinary assessment and intervention is one means that may be utilized by the family to help meet the special needs of the child living at home. Such visits also offer an opportunity for health care professionals to teach, counsel, support and strengthen family relationships.

In reviewing the work done by Vanderwerf in 1971, Barnard & Erickson (1976) reported that fathers attending a multi-disciplinary care setting with their developmentally disabled children felt left out of active participation in the evaluation and treatment of their child. The fathers felt the treatment of their child was of a "mother-clinic type" and stated that they wanted to be included to a greater degree.

Nurses working with developmentally disabled children and their families need to be aware of the desirability of including both the mother and the father in the planning and implementation of care for their child. Authors have urged health care professionals not to ignore the father nor to assume that the mother presents an accurate picture of his feelings and needs. When a family visits a child development and rehabilitation center, health professionals are provided an excellent opprotunity to include fathers in the processes they have indicated a desire to know more about.

Very little is known about what fathers do or to what extent they involve themselves during a visit to a child development and rehabilitation center. Currently, no tools to gather data in a systematic manner during such visits were found. If nurses are to foster parental competence during this potential learning experience, then three areas of research need to be explored: 1) tools need to be developed to facilitate systematic observation of father behavior in the clinic setting; 2) collection of data utilizing such tools to obtain information regarding behaviors fathers exhibit in the clinic; and 3) the development and testing of intervention strategies. Behavioral observation is a primary method utilized by nurses in making client assessments, upon which

further nursing interventions are based. Development and usage of a tool to facilitate systematic observation could thus provide a more concrete and less intuitive basis for nursing practice, and could lead to the building of a body of nursing knowledge. This study is concerned only with the development and testing of a tool to enable collection of observation data.

Review of the Literature

Literature pertinent to this study is organized into the following categories: impact of a child with a chronic, disabling condition upon the father; factors influencing father behavior; and studies of father behavior in health care settings.

Impact of a Chronically Disabled Child on the Father

Much has been written regarding the impact of a chronically disabled child on the family. Mothers of chronically ill children are most frequently quoted in research reports and often their responses are interpreted as representative of the rest of the family. Ross (1977) in writing about mental retardation stated: "Reading the scientific literature in this field, a student unfamiliar with our culture might easily get the impression that fathers play no part in the rearing of our children." Although limited in number, a few researchers have separated out father responses from those of the mother. Research which has focused on fathers of children with developmental disabilities has included topics such as, the effects of having a child with a developmental disability on the personality of the father, job mobility, activities of daily living, and role modifications.

Cummings (1976) reported on the impact of the child's mental and/or physical disability on certain psychological aspects of the father. In 1966, 240 fathers were recruited for participation in the study through the cooperation of a large group of clinics, social agencies, and community physicians in Chicago, Illinois. The sample consisted of fathers of "healthy" and disabled children, 60 from each of the following child diagnostic groups: mental retardation; chronic physical illness such as diabetes, cystic fibrosis, rheumatic heart disease; neurotic disorders defined as behavior disorders without psychosis; mental retardation or organic brain damage; and 'so-called' healthy children. Four personality variables of the fathers were measured: prevailing mood, self-esteem, interpersonal satisfactions, and child-rearing attitudes. Four self-administered tests were completed at the home. The tools used were the Edwards Personal Preference Schedule, the Self-Acceptance Scale of the Berger Inventory, and a 46-item Sentence Completion Test specifically constructed for the research project.

Cummings reported comparisons of the two "deficiency groups," the mentally retarded and chronically ill groups, and the "healthy" control group on the personality variables assessed. Findings from the neurotic group were not reported.

Fathers of the mentally retarded children showed marked differences from the fathers of the control group on three of the four main trait clusters studied: self-esteem, interpersonal satisfactions and child-rearing attitudes. Based on the difference in scores between these two groups, the investigator concluded that fathering a developmentally disabled child seemed to leave these fathers with a sense of relative

inferiority as fathers and possibly as men. In the area of interpersonal satisfactions the fathers indicated marked decrease in the enjoyment of their child, with some carryover to their other children and their spouse.

When scores from the Edwards Personal Preference Schedule were anlayzed, three variables showed consistent scores for the fathers of the mentally retarded children. The scores suggested that these fathers had a higher need for order, that is, emphasizing neatness, and orderliness, and dominance, characterized by a value of strong assertiveness in group situations. These same fathers expressed a lower score on heterosexuality defined by the investigators as the degree of readiness to express sexual interest in the opposite sex. The researchers interpreted these results as indicating a "constricted male, accentuating his compulsive tendencies in order to suppress his aggressive and sexual drives (p. 252)."

The scores of the fathers of the chronically ill children also showed significant negative effects from the experience of fathering a "health-deficient" child, although these effects were not as great as among fathers of the retarded children. Fathers of chronically ill children indicated more feelings of depression and a lower sense of paternal competence than the fathers of the healthy control group. Cummings reports that feelings of depression, preoccupation with their child, and enjoyment of their child all stand at "psychologically more stressful levels" for the fathers of the mentally retarded than for the fathers of chronically ill children.

McKeever (1981) using a systematic interview surveyed 10 "suitable"

fathers of chronically ill children to elicit information related to the following five areas of fathering concerns: communication with professionals, effects of the child's illness on the father, the father's involvement with his chronically ill child, coping mechanisms, and the father's main concerns. All the fathers who participated had children being followed by the home care department of a large children's hospital in Canada and were selected for participation by the home care nurse.

The fathers in McKeever's study reported they rarely spoke with a doctor or nurse about their child because the mother usually received the information about the child's illness. Without exception fathers felt both parents of chronically ill children needed professional support, beginning with the crisis of diagnosis. In fact, McKeever found that the fathers in her study had never had the opportunity to discuss their perceptions of their child with a health professional prior to her interviews with them. It is also interesting to note that none of these fathers had elected to seek support from outside organizations or groups.

All fathers reported feelings often associated with the grief response upon learning of their child's diagnosis. Financial hardship as a result of health care expenses was relieved by health insurance but a majority of the men stated they would not transfer or change jobs unless appropriate health care facilities were available for their child. This finding was also reported by Burton (1975) and Farber (1964) from their studies focusing on the impact of physically and/or mentally disabled children on families. Most fathers in McKeever's study reported restricted leisure activities and nine of ten stated that they went out with their

wives, without the children, less than once a month. From the father's point of view marital relations were affected by the presence of a chronically ill child; half felt their marriages were strengthened while the other half felt that the marriage had been weakened. The majority of fathers in this study stated they and their wives had decided not to have more children after learning the diagnosis of their child.

Several investigators report that fathers of mentally and physically disabled children experience a great deal of difficulty in articulating their concerns about their child. Burton (1975), in a study of 53 families of children with cystic fibrosis in Northern Ireland, reported 16% of women and 25% of the men said they were unable to discuss the child's disease with their relatives. All 10 fathers in McKeever's study (1981) admitted they were closed-mouthed about their concerns for their child and indicated their wives as sole supporter and confidant. McKeever concluded that fathers of chronically ill children do not attempt to cope with stress or solve problems by talking with others. Barsch (1968) investigated the child-rearing practices of 177 mothers and 88 fathers of American children with mental/physical disabilities, and expressed the notion that fathers "seemed to suffer in silence with their anxieties, while wives were more openly expressive (p. 87)."

In addition to the limited use of verbalization by fathers of developmentally disabled children in reducing stress and solving problems, several authors have speculated about other situations which can produce increased stress and interfere with role actualization. Cummings (1976) suggested that fathers are constatntly confronted with the fact that

they have a handicapped child and yet may have fewer opportunities to engage in activities which provide concrete evidence of their loving, care and benevolent concern. Examples of activities which could promote feelings of helpfulness cited by Cummings include: trips to the doctor, drug store, physical therapist, special school, or other special health services. Community support through mental health services and organizations for parents of handicapped children are not infrequently geared more for mothers than for fathers according to Cummings. With fewer avenues open for channeling these feelings, fathers may feel as much stress as mothers even though mothers have generally been ascribed to have a higher overall stress load. Bell, Trieschman, and Vogel (1961) suggested these same obstacles of lower verbal expression, fewer opportunities to participate in care, and lack of community resources for promoting role actualization in the 10 fathers of emotionally disturbed children they studied.

One possible outcome of the increased stress level discussed by these various investigators is the accumulative effect which this stress may have on the health of fathers of disabled children. All fathers interviewed by McKeever (1981) were experiencing health problems, such as duodenal ulcers, headaches, anxiety, hypertension, and obesity. Burton (1975) reported 60% of the fathers in her study indicated the presence of similar health problems. Cummings (1976) suggests from his findings that fathers of disabled children are frequently depressed. Although the investigators do not suggest that these problems are solely related to the stress attendant with their child's condition, they logically imply that such stress could be a contributing factor.

The reports of Cummings (1976) and Bell, Trieschman, and Vogel (1966) are based on studies done in the early 1960's and seem to be interpreted from a basis which assumes a family structure where the father is the primary wage earner, and the mother the primary care-taker of home and children. The investigators suggest that the stresses the fathers experience are related to decreased fathering role acutalization because of decreased opportunities to take part in child-related activities and limited community resources. They propose that including the father in the professional activities centered around his disabled child can serve a primary purpose of decreasing his stress and helping him actualize fathering roles.

Authors of books available during this same period of time for the purpose of advising and teaching parents about their developmentally disabled child, base the discussion of the father's roles from their own perspective of what those roles should be. This perspective seems based more from the traditional role expectations of fathers with "normal" children at that time and is focused exclusively on meeting the needs of the mothers. An example of such thinking appears in Spock (1965) who lists five tasks of the father in assisting the mother to care for their disabled child: 1) listen patiently when she explodes, 2) stand up for her when relatives are critical, 3) see that she has time out for fun, 4) understand that her complaints are the result of frustration and not directed personally at him; this allows him to take outbursts with a "better humor," 5) help out with household tasks that he may have not had responsibility for prior to the birth of the child.

Some studies examining the level of the father participation in the child-rearing activities of a disabled child have produced results which suggest fathers have gone beyond Dr. Spock's suggestions regarding fathering roles and become quite involved in the activities of child-rearing. Barsch (1968), McKeever (1981), and Hewett (1970) examined father participation in caregiving activities of mentally and/or physically impaired children.

Barsch (1968) developed questionnaires which were administered to 177 mothers and 88 fathers in Wisconsin to survey a variety of child-rearing practices including caregiving activities. The combined responses of both mothers and fathers to questions related to father participation in activities such as diapering, bathing, feeding, toilet training, recreation, school, were manipulated by the investigator into a four point scale of distribution to indicate high and low levels of participation among the following five groups of fathers. Fathers of children with Down's Syndrome were most involved on a longterm basis (89%), followed by fathers of blind children (75%), children with cerebral palsy (60%), deaf children (58%), and children with organic problems (38%). Continuous high level participation in child care was found in more than 60% of fathers whose children had long term illnesses.

McKeever (1981) did not measure the actual degree of caretaking activities of the fathers, however based on self-report, fathers felt they had equal involvement with their wives in the care of their child.

Hewett (1970) compared the perceptions of mothers of handicapped children regarding their husbands' involvement in care of their children

with those of mothers of "normal" children. Fifty percent of the fathers in Hewett's study were rated as "highly participant" in the child-rearing activities of their cerebral palsied children as well as their "healthy" children. There was no evidence that fathers of handicapped children were either more or less involved with home care than were those fathers whose children were not handicapped.

In summary, literature related to the impact of chronically ill children on fathers points out several concerns. Much of the inforamtion written for parents is not based on research findings. Rather such materials tend to reflect the percpetions of the author or the historical perspective of the traditional fathering role. The presence of a handicapped child in the home impacts directly on the father and is manifest in alterations of health status, decreased recreational activities and hobbies, changes in marital relations, decreased job mobility, increased financial burden, decreased self-esteem and satisfaction derived from interpersonal relationships between self and other family members, and an overall increase in stress. Finally, the literature shows that fathers verbalize their concerns about their disabled children less than mothers and utilize fewer community resources. Given the opportunity, fathers in one study readily discussed their concerns regarding their disabled child suggesting that health care professionals cannot rely on the fathers verbal expressions or lack of expressions of concerns as an indication of his involvement with the child, his health status, or his overall stress level.

Factors Influencing Father Behavior

Socio-economic status is one of the most frequently reported determinants of father behavior. Burton (1975) studied the family life of 58 children with cystic fibrosis and 97 of their parents in Northern Ireland. Names and addresses of families were obtained from pediatricians and the Research Trust, and an attempt at obtaining a 100% sample undertaken. The socio-economic status of the father, based on the Registrar General's Classification of Occupation, was examined in relationship to the following variables: speed of the child's diagnosis, father's presence at the diagnostic visit, involvement in treatment, response to illness, and understanding of illness. Sixty-four percent of fathers in the upper socio-economic class were present at the time of the diagnostic interview, as compared to 18% of the lower socio-economic group. Parents from higher socio-economic groups also were more knowledgeable about the disease condition. Only two variables, namely, parental response to illness and involvement in treatment were not found to be correlated with socio-economic class.

Possible explanations for these relationships are suggested by Burton. Communication abilities were thought to be better in higher socio-economic classes allowing better understanding of professional language. Greater intelligence and natural authority facilitated better preparedness for communication with professionals. More flexible employment roles may have decreased the barriers to the father accompanying his wife to the hospital or health care facility. Burton suggests that financial stress influences the parental attitude and behavior toward the disease, their child, and the clinicians who care for the child in a negative manner.

In a review article Farrell(1977) identified five other factors which influence the parent's coping behavior in addition to income and social status. These factors are: age of parents, severity of handicap, stability of the family, parental expectations of the child, and birth order of the child.

Zisserman (1978) assessed 40 mothers and fathers from Alabama and explored the relationship between the sex of the parent and knowledge about cerebral palsy as a possible determinant of family integration. Analysis of the "subjective questionnaires" used for this study indicated that both parents felt that the mother knew more about cerebral palsy than the father. However, careful statistical analysis of the objective data revealed that all parents had more knowledge about male children than female children, indicating that sex of the child rather than sex of the parent is more of a determinant of parent knowledge of the disease condition. Thses findings are consistent with other reported research (Burton, 1975; Farber, 1964).

Burton (1975), Cummings (1976), Alexander (1978), Knott (1979), Martin (1977), McKeever (1981), and Merring (1959) in their individual studies of parents and children with cystic fibrosis, mental and/or physical disabilities, and chronic illness, all identify the health care visit as a potentially significant learning experience for parents. The visit is seen as an opportunity which can lead to increasing knowledge of those present, facilitating treatment complicance, decreasing guilt, and strengthening family integration.

In summary, the literature regarding factors influencing father behavior indicates that this is a complex phenomenon and is influenced

by a number of different factors, including age, socio-economic status, and sex of the handicapped child. Father attendance at health care visits is viewed, by several authors and researchers, as a contributing factor to the overall health of the child and the family.

Studies of Father Behavior in Health Care Settings

Only two studies could be found in the literature where the researchers had attempted to investigate father behavior in specific health care settings. Bell, Trieschman, and Vogel (1961) examined the "resistance" of "working class" fathers whose children were being treated in a child psychiatric clinic. They defined resistance as unfavorable disposition to treatment. The authors' report is based on their "experiences" with 10 working class fathers seen for periods ranging from 1 to 4 years and employed no formal research design.

They noted that working class fathers in treatment would go through periods of being tardy, forgetting appointments, threatening to terminate treatment, and complaining that the treatment made no sense. While these same patterns had been observed in other socio-economic groups, the patterns observed with working class fathers seemed more regular and persistent. In exploring the possible causes of the resistance in this specific population, the authors identified the individual "genetic histories" of the men and the socio-cultural aspects of resistance and hypothesized that the discrepancy in values between the middle class therapist and the working class fathers was a major barrier to father involvement in treatment.

The authors identified three areas that were suggested as sources

of resistance: general role dispositions, family structure, and clinic procedures. Issues related to general role disposition that were hypothesized to interfere with treatment compliance of working class fathers included the following: an orientation to the here and now; taking life as it comes rather than an active striving for achievements; a tendency to bow to the forces of fate as opposed to a view that problems are challenges; a view of human nature which accentuates the evil more than the good; and a problem-solving approach of seeking out resource people where relationships have already been established, that is boss, clergy, rather than approaching people foreign to their existing system. In addition, Bell, et al (1961) suggest that talking is not viewed by the working class father as an efficacious way of solving problems or achieving goals.

The main factor related to family structure that was hypothesized to increase resistance was the belief on the part of the investigators that husband and wife roles were more sharply defined and segregated among working-class familes. The authors report fathers in their sample regarded child care as "woman's work" in which they should not be expected to take part. By the time these fathers were seen in clinic, the authors believed that maintaining masculine identity depended on the father being able to maintian a distance from this "feminine" activity.

Features of the clinic that increased resistance were also identified. The presence of many women and few male therapists was seen as a barrier. Talking which was the dominant activity during a visit was difficult for the working class father who considered it a feminine

activity. These fathers also showed little ability at handling frustrations verbally. Clinic hours during the father's working day were interpreted by the researchers as presenting a barrier to father involvement, giving the fathers the message that the mothers were more important and "running the show."

In discussing the implications for treatment, Bell, et al (1961) suggest that stressing a more personal and less formal relationship between father and therapist is more significant in forming a relationship with him than the hope of a brighter future for his child. Alterations in clinic hours and/or home contact can neutralize what the father perceives as reality demands which would interfere with his involvement with treatment of his child.

Chodoff, Stanford, Friedman, and Hamburg (1964) made behavioral observations of 26 mothers and 20 fathers in the eastern United States who were anticipating the death of their child. The "clinical impressions" reported were gained over a two year period while the parents were participants in a study measuring adrenal cortical response to chronic psychological stress. Two groups of parents were studied: thirty-five who lived on a separate ward of the same hospital where their children were receiving treatment for leukemia, and eleven who lived in the immediate vicinity of the same hospital, and were seen on an "outpatient basis." The study methods used for the parents living in the hospital included: weekly parent interviews and daily visits to the child's ward by one of the primary investigators, observations of parents made and recorded by nurses on the "parent ward", and daily completion by parents of a questionnaire regarding their activities.

Parents seen on an "outpatient" basis were interviewd every two weeks. All parents were also observed interacting with their children on the pediatric ward. Interviews focused on parent perception of their child's illness and clinical course, and the defense and coping mechanisms utilized by parents.

Fathers demonstrated more motor activity and seemed more stressed and anxious possibly because of the less comfortable surroundings of the hospital and unfamiliarity with care giving. Father coping activities included entertaining and playing with their child, taking long walks, or reading. Projection of anger and resentment to doctors and nurses was used infrequently as a coping method.

Literature related to father behavior in a health care setting is limited, however, the two foregoing studies support previous reports that fathers do not use verbal communication to express their feelings. Father participation in health care visits may be influenced by general role dispositions, family structure, and clinic procedures as these all related to socio-economic status of the family. Playing with their child, reading, and moving about are reported as activities which describe father behavior in the health care setting and may be assumed to be indications of coping behavior.

Theoretical and Conceptual Framework

The schematic design of the nursing process developed by King (1975) proivdes the theoretical structure for this study. King's four concepts of health, perception, interpersonal relation, and social integration guide her formulation of a working definition for the nursing process,, which she perceives as the core of nursing. Figure 1 depicts the

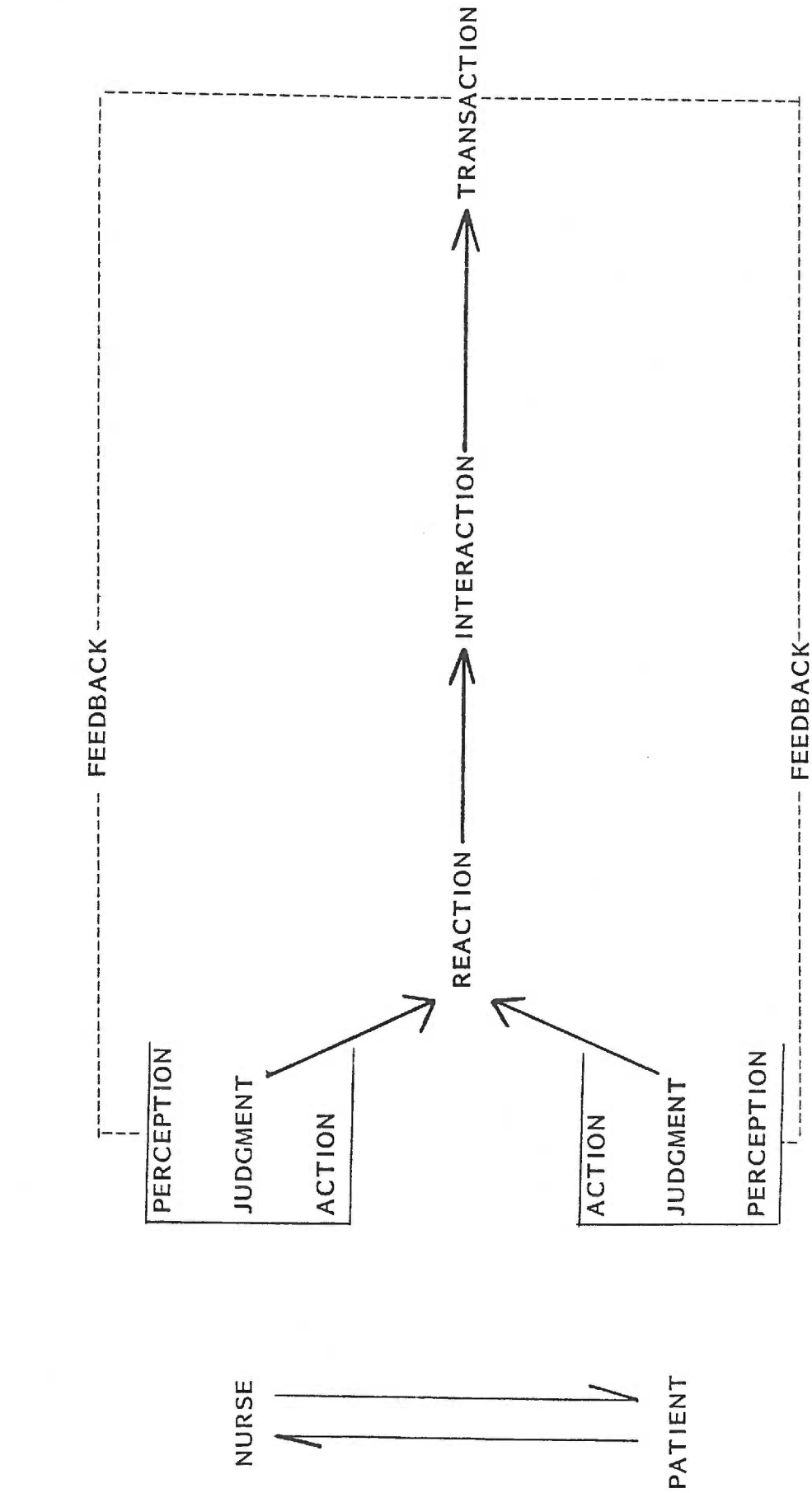

Figure 1. King's schematic design of the nursing process.

model used by King to conceptualize a way of studying the nursing process.

She identifies direct observation of the nurse-client interaction as the primary method of obtaining data about the nursing process. Although this study will not explore the interaction of the father and the nurse, it is viewed as exploring the "sense data" component of "perception" as defined by King.

King contends that when a nurse and a client meet in a nursing situation, each perceives the other and makes judgements about this other individual resulting in action. This action is expressed in verbal or nonverbal behavior, setting up a reaction on the part of the nurse and client.

Following the interactive process, when nurse and client assess goals to be achieved and mutually define these health goals, a trans-action occurs. This mutual agreement has an effect on the actions and judgement of the nurse and the client and influences each one's perception.

Perception is defined by King as a process of organizing, interpreting, and transforming information from sense data and memory. It gives meaning to one's experience, represents one's image of reality, and influences one's behavior. She contends that it is essential for nurses to have a knowledge of perception if they are to assess, interpret, and plan for a client's identification and achievement of goals which maintain health (p. 24)

No studies could be found in the literature in which the behavior of fathers of developmentally disabled children had been systematically

observed and described during a child health care clinic visit. No tools to gather such data were found. Fathers of developmentally disabled children have stated they want to be considered active participants and be included in the evaluation and treatment of their child. All of the literature reviewed clearly supports the need for fathers to be included in the ongoing planning for their child.

Since one of the functions of a nurse is to help clients identify their health needs and establish realistic goals to meet their needs, the nurse is responsible for using methods to gain information about a client's perception of the situation. Observations of behavior offer clues to an individual's needs and his perception of the situation (King, 1975). Development and testing of a tool to observe father behavior in a health care setting can help nurses increase their knowledge base of this special population and provide perceptual expereinces that foster a positive reaction in fathers. As a member of a health care team providing service and care to families where a developmentally disabled child is present, nurses must be able to help assist fathers as well as mothers achieve optimal learning and satisfaction from the health care visit.

Statement of Purpose

This descriptive and correlational study had two purposes:

1) Development of a tool which will facilitate systematic observation of fathers of children with developmental deviation in a multi-disciplinary health care setting.
2) Utilization of the tool to observe these fathers with

the presenting child, mother of the child, and professional during the clinic visit to explore the following questions:

a. What are the predominant behaviors exhibited by fathers throughout the sessions observed?

b. What are the predominant behaviors observed within each session and what are their correlations with other behaviors within the same session?

c. How does the behavior of fathers as a group vary with relation to different professional activities?

d. Are individual fathers consistent with the types of behaviors they exhibit throughout the sessions observed?

e. During stressful times who does the father turn to for support?

CHAPTER II

METHODS

Introduction

The purpose of this study was two-fold: development of a tool to systematically observe fathers of developmentally disabled children attending a multi-disciplinary health care clinic; and field observation using the tool to address specific research questions. Each purpose, while related, required specific yet different methods. For this reason the methods employed for tool development are presented in Phase I, followed by those utilized for the field observation, Phase II.

Phase I

Tool Development

Design Overview

The research design was descriptive and correlationsal. This normative method of research is most useful when the intent is to observe phenomena, describe what has been seen, and examine the record of observations to find meaning. This type of research design and methods are particularly relevant to real life situations such as occur in nursing and which negate the use of a controlled laboratory setting (Marriner, 1981).

Observation, which is the best method of behavioral descriptions, was the primary method used in both phases. Observation must be used when variables of studies are interactive and interpersonal in nature and when the purpose of the study is to investigate the relationships between observed behavior and other behaviors or attribute variables (Kerlinger, 1973, p. 554). Hutt & Hutt (1970) contend

that only observations are flexible and sensitive enough to record the range of behaviors displayed in exploration of the physical and social environment.

The use of systematic observation as a research technique is not new to nursing or other sciences. Darwin's contributions to science began with observation and the study of humans and other animal species. Natural sciences such as biology, astronomy, as well as behavioral sciences continue to rely on observational studies in their search to validate existing knowledge or discover new information and relationships. The process of describing and explaining phenomena has equal importance in nursing. Indeed King (1975) claims that "one of the goals of research in nursing is to explain natural phenomena and to use the knowledge from research to improve the health care of people."

In addition, descriptive data obtained from observation serves an important function in guiding nursing practice and in building nursing theory. Direct observation has been a primary function of nurses for centuries. Studies of nursing situations that describe patterns of behavior in their natural states are essential for developing concepts and theories. Concepts derived from this type of research can then be defined and hypotheses formulated and tested (King, 1975).

Setting and Subjects

Both phases of the study were conducted at the Child Development and Rehabilitation Center (CDRC) of Oregon. This facility is located in a metropolitan area and is affiliated with the Oregon Health Sciences

University. Families from both rural and urban counties make-up the clientele. The facility provides multi-disciplinary diagnostic and follow-up assessment and planning for children from birth to 21 years of age. These are children who are being evaluated or have been diagnosed with a developmental disability. In addition to the regular staff, a number of both graduate and undergraduate health care students rotate through these clinics. The physical setting is particularly conducive to an observation study as each clinic room is equipped with a one-way mirror and communication system which allows observation without the investigator being physically in the room.

Four of the questions addressed by the study involved the range and consistency of father behaviors during three selected observation periods which involved different professional activities. The social work interview, physical examination, and final conference were selected for observation during the following clinics: cerebral palsy, primary evaluation, and child development. A family attending one of these clinics usually spends three to four hours per visit.

In both phases of the study fathers who met the following criteria were asked to give permission for the investigator to observe their clinic visit for the purpose of research:

1) Both parents had to be present for the clinic visit.

   Rationale: Fathers attending clinic alone were excluded since they would automatically be placed in a primary role that may not exist when the mother was present.

2) Siblings of the presenting child could or were not to be present.

   Rationale: The presence of siblings could distract

the father from the presenting child or the focus of the session.

3) Only biological or adoptive parents were asked to participate.

   Rationale: The investigator believed it was important for both adults to have had an equal length of time as the child's parent.

4) The presenting child had to be 12 years of age or younger.

   Rationale: Fathers of adolescent children might assume different roles, particularly during the physical examination, which could be a variable affecting behavior.

All clients attending clinics at CDRC are asked to give verbal permission for students and staff to observe them through the one-way mirrors during the clinic visit. All clients reserve the right to deny such permission. This study was considered to be low risk and did not require written informed consent from the participants by the Institutional Review Board. The researcher introduced herself to the families, explained the purpose of the phase of the study under consideration, and requested additional consent from the fathers to observe for the purpose of research. It was explained that families had the right to refuse observation without any effect on their right to receive health care at CDRC. It was also explained that there would be no immediate benefit to participants, but that families attending clinic in the future might benefit from their participation. No fathers refused observation in either phase of the study.

Tool Development

The following interrelated factors were recognized and addressed during the tool development phase. Although each of these factors affects the others, they will be described individually for the purpose of clarity under the following headings: behavioral categories (definition, size, influence of setting), sampling strategies, and observer training.

Behavioral Categories

When conducting research in a naturalistic setting utilizing observation as the primary method, the researcher must have a means of gathering information in an organized manner. A degree of rigor in measurement commensurate with that expected of experimental studies is necessary if quantitative data are to be obtained from this type of research (Hutt & Hutt, 1970).

The most important consideration is to know what is being observed. Because ordinary language meanings are often not precise enough for reliable coding, it is necessary to devise a means of systematically approaching or encoding the data. Field observation requires a prior delineation of the behaviors to be recorded with established definitions of those behaviors, and a consistent manner of recording the data (Behn, 1980).

In conjunction with the need for behavior to be well defined, a determination of the behavioral unit size most appropriate for the purpose of the study must be made. Reliability can be maximized by using small units which are easily observed and/or recorded, for example, eye blinks, heart and respiratory rate. However, behavior

can be reduced so much that it no longer bears any resemblance to the behavior one intended to observe and validity is lost. This investigator was interested in behaviors of a more global nature and for this reason molar categories were considered to be more appropriate than the molecular units of heart rate and eye blinks.

It is also well documented that behavior is influenced by the setting in which it occurs. Behn (1980) asserted that "the malleability of behavior to environment means that even if coding systems exist that have considered the behaviors of current interest, it is usually necessary to devise a new system or extensively revise an existing code to fit the occasion."

In summary, congruence between behavioral category definitions, category size, and setting with the purposes of the study were considered necessary.

An obsrevational tool constructed by Behn (1980) was identified as potentially appropriate for this study. It had been developed primarily to objectively record verbal and non-verbal behaviors that occur as service providers and clients interact with each other in the face-to-face context of service delivery. The basic unit of Behn's behavioral categories is molar and is defined as "the smallest discriminable, meaningful segment of verbal or non-verbal behavior which the coder can classify (Behn, 1980)." The tool consists of 28 well-defined behavioral categories which appear to be the maximum number that coders can use effectively in the field (Patterson, 1977).

Following review of the Behn tool by the investigator and the committee members of this study, it was agreed that the tool addressed

two of the criteria for congruence between research purpose and method. These two criteria were the fact that the behavioral categories were well defined for the observer, and they were of the appropriate size.

Behn was contacted at the Oregon Graduate School of Professional Psychology by the investigator and permission was obtained to utilize and revise the tool as appropriate to the purpose and setting of this study. Dr. Behn granted consent and also provided a copy of the observer training manual.

The Behn tool had been developed for use in a naturalistic setting involving an elderly client and a health care provider, but needed additional testing to determine appropriateness of categories in the clinic setting with fathers of developmentally disabled children. For one month prior to locating the Behn tool, the investigator had been conducting a piloting phase; fathers were observed during clinic visits and running notes were used to record their behavior. As an initial step toward determining the appropriateness of the Behn tool for gathering data in this setting, the investigator reviewed the notes to determine fit with the behavioral categories established by Behn. This process confirmed that the Behn tool with some modification could be employed for this study.

Thus, pilot work with respect to modification of the Behn tool was undertaken. From the period of February through March 1982, the investigator continued to observe fathers of developmentally disabled children in the clinic setting, utilizing the Behn behavioral categories and coding system. The purpose of this piloting process was to delete inappropriate categories, and establish those categories pertinent to

the population and setting. When behaviors occurred which did not fit the established categories, or suggested special meaning for this setting and population, a note of the specific behavior was made as had been done during the early piloting period. Examples of these behaviors included changing diapers, feeding the child, making funny faces at the child, helping the child in and out of a wheelchair, and crying.

Six of the original Behn behavioral categories were eliminated or incorporated into other categories during the piloting phase, namely: Interrupt, Parenting, No Response, Criticize, and Civility. Interrupt and No Response were not observed during the piloting period and were eliminated. The Parenting category was defined by Behn as "statements that foster dependence and helplessness"; statements could be "condescending, as one would speak to a child." In addition to the investigator's philosophical objection to the word parenting being defined in such a manner, it was believed the content implied by the definition could be coded with the existing categories of Problem Description, Disregard, and Talk. Complain and Criticize were incorporated into the definition of Talk.

Four new behavioral categories evolved, namely: Caretaking, Play, Sadness, and Negative Physical Contact. Although Caretaking and Play might have been coded under the Normative category, the literature suggested these activities could have special meaning for the setting and/or the population (Chodoff, Stanford, Friedman, and Hamburg, 1964). Thus these behaviors were developed into specific categories. Sadness and Negative Physical Contact were included

after observing two fathers exhibit these behaviors during the piloting phase. It was believed that they might not occur frequently but could be indicative of other on-going processes. The 26 revised behavioral categories and definitions are presented in Appendix A.

Sampling Strategies

Issues to be considered with regard to sampling strategies included: length of observation during each session, frequency or density of observations, and recording device.

Several sessions each of the social work interview, physical examination, and final conference were observed and behavior coded to determine if there were any particular portions of these sessions that would elicit the widest range of behaviors. The number of minutes for each session was also recorded so that selection of observation length would not exceed the actual session time.

With the exception of the first 30 to 60 seconds of the social work interview and the final conference there were no particular portions of any of the sessions which emerged with a wider range of behaviors than others. The first portion of the social work interview and the final conference usually consisted of introductions and explanations of the purpose of the session. A decision was made to observe each session randomly, however when observing the beginning of the social work interview and the final conference 60 seconds was allowed to elapse before coding was initiated. A ten minute sampling observation period was selected since it was noted that most sessions lasted between 10 and 25 minutes.

The frequency of observations was determined by the experienced observer and the investigator. Initially, observations were made every ten seconds; the behavior being manifested at the end of the time interval was recorded. It was noted that by coding every ten seconds behaviors were being missed. Following experimentation with different timing frequencies the observers selected five second coding intervals. This seemed to capture a maximum of behaviors and was within the capabilities of the observers.

Once the behavioral categories and timing decisions were established it was necessary to devise a mechanism to facilitate data collection. The coding sheet format for the Behn study was used as a model. The need for revisions in several areas had become apparent during the initial observation periods. Once behavioral categories had been determined, they were assigned to a two-letter code to facilitate recording of observational data. The behavioral categories, and decisions regarding length and frequency of observation were incorporated. Because the fathers would be observed in the presence of three other people, the coding sheet was altered to allow coding with respect to the target of the father's behavior, that is, professional, child, and mother. The revised coding sheet is shown in Appendix B.

Observer Training

A trained observer from the Behn study volunteered to assist the investigator with the behavioral category finalization and the establishment of interrater reliability. The volunteer, a master level graduate student at Portland State University in the department of psychology,

had undergone formal training for the Behn study. Criteria for selection of trained observers for the Behn study included the following: high scoring on the Employee Aptitude Survey and the Minnesota Clerical Tests, and achievement of an interrater reliability of .70 (range .73-.85) utilizing video tapes and field training with the behavioral categories. In total this represented 70-100 hours of training. Three years had elapsed between the Behn study and the current study. Because all but six of the original Behn behavioral categories were maintained, the training period for the volunteer was shortened. Training of the volunteer for this study was done in the specific clinics during clinic visits utilizing the revised list of the behavioral categories and coding sheets.

The investigator training took place in conjunction with other tool development activities, such as, category definition, coding sheet development, and sampling strategy activities, and extended over a three month period of time. Data collected during the tool development are not included in the study.

Reliability

Behavioral collection for determining interrater reliability was obtained by simultaneous coding of the investigator and the volunteer. Interrater reliability was established through a comparison of the two coding sheets. The number of agreements for each five second observation interval was tallied. The criteria for agreement specified that each observer must have the same behavioral category coded during the same observational interval. If one observer had left an interval blank while the other had coded a behavior, it was counted as a disagreement.

If two behaviors had been coded during an interval, at least one of the two behaviors had to appear in the corresponding interval for agreement to occur. The total number of tallied agreements was then divided by 120, the total number of agreements possible.

Initial interrater reliability levels achieved were as follows: social work interview .94, physical examination .89, and final conference .96, yielding a mean interrater reliability of .93. Midway through the field observation, approximately four months later, interrater reliability checks were done by the investigator and volunteer utilizing the same procedure as for the inital reliability. Interrater reliability levels achieved at this time were: social work interview .90, physical examination .98, and the final conference .94, resulting in a mean reliability of .94.

Phase II

Testing the Father Behavioral Observation Tool

Introduction

During Phase II the Father Behavioral Observation Tool was used in an effort to find answers to the following questions: 1) What are the predominant behaviors exhibited by fathers throughout the three sessions observed? 2) What are the predominant behaviors observed within the same session? 3) How does the behavior of fathers as a group vary with relation to different professional activities? 4) Are individual fathers consistent with the types of behaviors they exhibit throughout the sessions observed? In addition, information was sought via questionnaire regarding who the father identified as a resource person in times of stress.

Subjects and Settings

A convenience sample of 12 fathers who met the stated criteria outlined in Phase I were recruited to participate in the study. All fathers were attending one of the following CDRC clinics: cerebral palsy, primary evaluation clinic, and child development. These clinics were chosen because the format of the visit consistently included a social work interview, physical examination, and final conference. An assumption of this study was that the potential existed in all situations for parents to be learning new information about their child which could be anxiety producing regardless of previous diagnosis or number of previous visits to this facility. There was no attempt to distinguish behaviors exhibited during an initial visit versus a return visit, or behaviors exhibited in relation to severity of the child's handicap.

Tools Used for Data Collection

Father Behavioral Observation Tool

The Father Behavioral Observation Tool developed by the investigator was utilized for collection of data. It consists of 26 behavioral categories and codes (Appendix A). The tool was used in conjunction with a coding sheet (Appendix B) which is structured to facilitate a ten minute observation period with five second notations.

Questionnaire

Demographic characteristics were gathered through use of a questionnaire in order to describe the sample. Several authors identified lack of support systems for fathers as a major gap in providing for

the overall needs of the father and family with a developmentally disabled child (Cummings, 1976; Alexander, 1978; Knott, 1979; Merring, 1959). In McKeever's study (1981) fathers reported their wives as sole supporter and confidant. In order to obtain information regarding who the father identified as support persons the following question was included on the questionnaire: In times of stress, to whom do you turn for support? A list of 11 people was given with a Likert type scale following each option ranging from "never" to "always." The father circled one response for each person listed. The questionnaire appears in Appendix F.

Procedure Used for Data Collection

Written informed consent was not required for this study. The same procedure was employed in recruiting each father. The investigator approached each family prior to the first session with the professional staff at CDRC. The following information was given to each father: the investigator was engaged in a research project as part of the requirement of completing a master degree in nursing. The intent of the research was to collect information which could potentially improve services to families, with a particular emphasis on fathers. It was explained that fathers in this study would not benefit directly from participation at this time. In the future, fathers attending clinics at CDRC might benefit from the results of the study. The investigator requested permission to observe the father during portions of the social work interview, physical examination, and the final conference. The fathers were also asked to complete the questionnaire following the final conference. All fathers approached agreed to participate.

The procedures used to carry out each observation were as follows:

1) Ten minute observations of the father were made during the social work interview, physical examination, and the final conference using the Father Behavioral Observaation Tool coding system. Coding was initiated randomly within each of these sessions. If the observation took place at the beginning of a social work interview or the final conference, the investigator did not begin coding until introductions and purpose statement had been made by the professional, usually 30-60 seconds.
2) Observations were made from a room equipped with a one-way mirror. The investigator used a small portable tape recorder and tape with audible beeps every five seconds to cue coding.
3) Each observational coding sheet and questionnaire were designated a code number. Last names of fathers were not requested thus anonymity was guaranteed.
4) At the completion of the final conference fathers were given a questionnaire for completion.

Statistical Analysis

The following statistical procedures were employed for analyzing the data: frequency distributions and descriptive statistics were obtained for the 26 behavioral categories and items on the questionnaire. Pearson's correlation coefficient and Kendall's tau were used to determine correlations among behaviors within sessions. Because Kendall's tau utilized a rank ordering of data to compute correlations, the effect

of extreme scores in raw data is reduced when the sample size is small. When the results of Pearson's correlation coefficient and Kendall's tau differed, Kendall's tau values were reported. The use of Kendall's tau was considered the more appropriate method for reporting the results of correlations among behaviors within sessions. A single factor, repeated measures analysis of variance was used to examine how the means for each behavioral category differed across the three clinic sessions observed. Kendall's tau correlations for each of the predominant behaviors between sessions were computed.

CHAPTER III

RESULTS

Introduction

The findings from the initial testing of the Father Behavioral Observation Tool in the clinic setting, are presented in the following sequence:

1) Sample description.
2) Mean frequency of father behaviors during all three sessions are examined to identify the predominant behaviors exhibited throughout the three observation periods.
3) Frequency of behaviors and their patterns for individual sessions are presented as they relate to the three professional activities observed.
4) ANOVA and correlational data for the predominant behaviors are examined for consistency of behavior for fathers as a group, as well as individually.
5) Analysis of father responses regarding support persons.

Description of the Sample

A convenience sample of 12 fathers who met the criteria outlined in Phase I, were recruited to participate in the study. Eight fathers were observed in cerebral palsy clinic, three in primary evaluation clinic, and one in child development clinic during the period of August through October 1982. Presenting problems of the children ranged from severe cerebral palsy to evaluation for potential developmental deviation.

The descriptive characteristics of the sample are presented in Table 1. The median age of the fathers was 29.5 years and the median age of their children 21.5 months. Two thirds of the fathers had high school diplomas, and one third had earned a college degree. The educational preparation, employment, and economic status of the sample is compared with those of other Oregon residents in Table 2. Information could not be found in respect to characteristics of fathers in Oregon. The only available information included both males and females. This fact, plus the sample size must be borne in mind in making comparisons.

The families in the sample realized a lower annual income than other Oregon residents and had completed fewer years of education with the exception of the two college categories. At the same time, the percentage of fathers in the sample having achieved 16 or more years of college was higher than other Oregon residents. The unemployment rate of the fathers was double that of other Oregon residents at that time. This factor may have contributed to the fathers attendance at the clinic.

Predominant Father Behaviors During Three Observation Periods of the Clinic Visit

In order to examine the data with respect to the predominant father behaviors, mean frequencies for each behavioral category during each of the three observation periods were calculated. These findings indicate a wide range of occurrence for the 26 behaviors and are displayed in Table 3. Nine behaviors with means greater than 2.0 in

Table 1

Personal and Demographic Characteristics of Sample

Subject	Age	Age of Child in months	Number of School Years	High School Diploma	College Degree	Present Occupation	Religion	Annual Income
1	23	19	11	No	No	Paper Carrier	Baptist	<$5,000
2	31	60	<16	Yes	Yes	Lawyer	Luheran	$20,000-25,000
3	28	72	9	No	No	Unemployed	None	<$5,000
4	35	48	12	Yes	No	Self-employed	Protestant	>$25,000
5	26	5	12	Yes	No	Millright	None	>$25,000
6	32	18	14	Yes	Yes	Police Officer	Mormon	$20,000
7	26	2	<16	Yes	Yes	Chiropractic Student	Jewish/Yoga	<$5,000
8	38	15	6	No	No	Dishwasher	Catholic	$5,000-9,999
9	21	24	12	Yes	No	Heavy Equip. Operator	None	$10,000-14,999
10	36	96	15	Yes	No	Supervisor	*	$20,000-24,999
11	49	17	17	Yes	Yes	Unemployed	None	>$25,000
12	25	24	11	No	No	Unemployed	Catholic	$10,000-14,999

Note: N = 12
*no entry

Table 2

Selected Characteristics of Sample Fathers

Compared to Oregon Residents

	Percentage of Oregon Residents	Percentage of Sample (N = 12)
Annual Income		
<$10,000	20.0	33.0
$10,000-24,999	45.7	67.0
>$25,000	34.0	17.0
Number of School Years Completed		
8 years or less	100.0	91.6
1-3 years of high school	88.2	83.3
4 years of high school	74.7	66.7
1-3 years of college	37.3	41.7
4+ years of college	17.2	25.0
Unemployment	11.4	25.0*

Statistical Abstract of the United States, 1982
*Note: Unemployment based on June, 1982 report.

Table 3

Mean Frequency of Father Behaviors

During the Three Observation Periods

Behavior	Session		
	Social Work Interview	Physical Examination	Final Conference
	Mean (SD)	Mean (SD)	Mean (SD)
Agree	0.58 (0.10)	0. (0)	.25 (.62)
Disagree	0.08 (0.29)	0. (0)	0. (0)
Attend	61.47 (27.50)	86.42 (25.95)	92.41 (24.17)
Non-Tracking	13.90 (9.49)	17.67 (26.27)	8.69 (10.72)
Command	1.25 (3.75)	1.17 (2.21)	1.32 (2.59)
Compliance	0.0 (0)	.17 (.39)	.08 (.29)
Non-Compliance	0.0 (0)	0. (0)	0. (0)
Caretaking	3.08 (6.92)	.92 (1.56)	4.10 (6.09)
Disregard	0.08 (0.29)	0. (0)	0. (0)
Humor	0.25 (87)	0. (0)	0. (0)
Laugh	0.83 (2.04)	.67 (.89)	.42 (.67)
Nervous Behavior	4.0 (5.72)	5.0 (6.7)	7.66 (15.57)
Normative	0.0 (0)	.08 (.29)	.92 (2.39)
Problem Description	26.98 (25.83)	5.33 (6.04)	1.89 (2.60)
Positive Physical	0.42 (1.17)	.25 (.62)	.83 (1.75)
Play	0.83 (1.99)	4.08 (12.00)	1.71 (3.17)
Proposed Solution	0.58 (1.17)	.25 (.62)	.83 (1.75)
Question	1.07 (1.54)	.50 (.91)	2.29 (2.80)
Smile	4.41 (5.51)	10.42 (8.88)	2.22 (2.26)
Self-Putdown	0.08 (0.29)	0.	0

continued

Behavior	Session		
	Social Work Interview	Physical Examination	Final Conference
	Mean (SD)	Mean (SD)	Mean (SD)
Supportive Statement	.08 (.29)	1.17 (1.99)	0. (0)
Talk	10.90 (10.38)	2.83 (2.08)	2.74 (2.71)
Volunteer	0. (0)	0. (0)	.08 (.29)
Sadness	0. (0)	0. (0)	0. (0)
Negative Physical	0. (0)	0. (0)	0. (0)
Self-Supportive Statement	0. (0)	0. (0)	0. (0)

Note: N = 12

at least one session emerged as the most frequent for all three sessions: Attend, Non-Tracking, Caretaking, Nervous Behavior, Problem Description, Question, Smile, Talk and Play.

All behaviors observed were coded in two ways. First, the appropriate behavioral category was coded. Second, the target or the person to whom the father's behavior was directed (that is, professional, child, or mother) was indicated by where the behavior was noted on the coding sheet. Although the target was indicated when coding all observations, only for the behaviors of Attend were the data analyzed separately for each of the three directions of the father's behavior. This refined coding of Attending in respect to target was selected for further analysis because of the overriding frequency with which this behavior occurred. Attending behavior comprised between 51% (social work interview) and 77% (final conference) of each session observed. These data are shown in Table 4. The frequency of the nine predominant behaviors during each observation period appear graphically in Figure 2 along with the target of the fathers' Attending behavior. These nine behaviors were selected for further analysis as they constituted the major portion of each session.

A determination had been made during the piloting period that the observer could accurately record more than one behavior in each coding interval. This decision was made so that the observer would not have to choose between two behaviors occurring at the same time, thus enhancing the descriptive nature of the study. During data collection it was noted that there were two behaviors, Nervous Behavior and Smile, that were always coded in conjunction with another behavioral

Table 4

Father Attending Behavior as Directed to Mother, Child, Professional, and Professional/Child During the Three Observation Periods

Behavior	Session		
	Social Work Interview	Physical Examination	Final Conference
	Mean (SD)	Mean (SD)	Mean (SD)
Professional	27.80 (20.89)	4.67 (6.55)	68.55 (19.39)
Child	20.45 (19.92)	3.08 (6.59)	18.95 (15.70)
Mother	13.22 (14.11)	1.67 (1.92)	4.91 (6.78)
Professional/Child	a	77.00 (26.55)	a

Note: N = 12

[a]not coded for this session

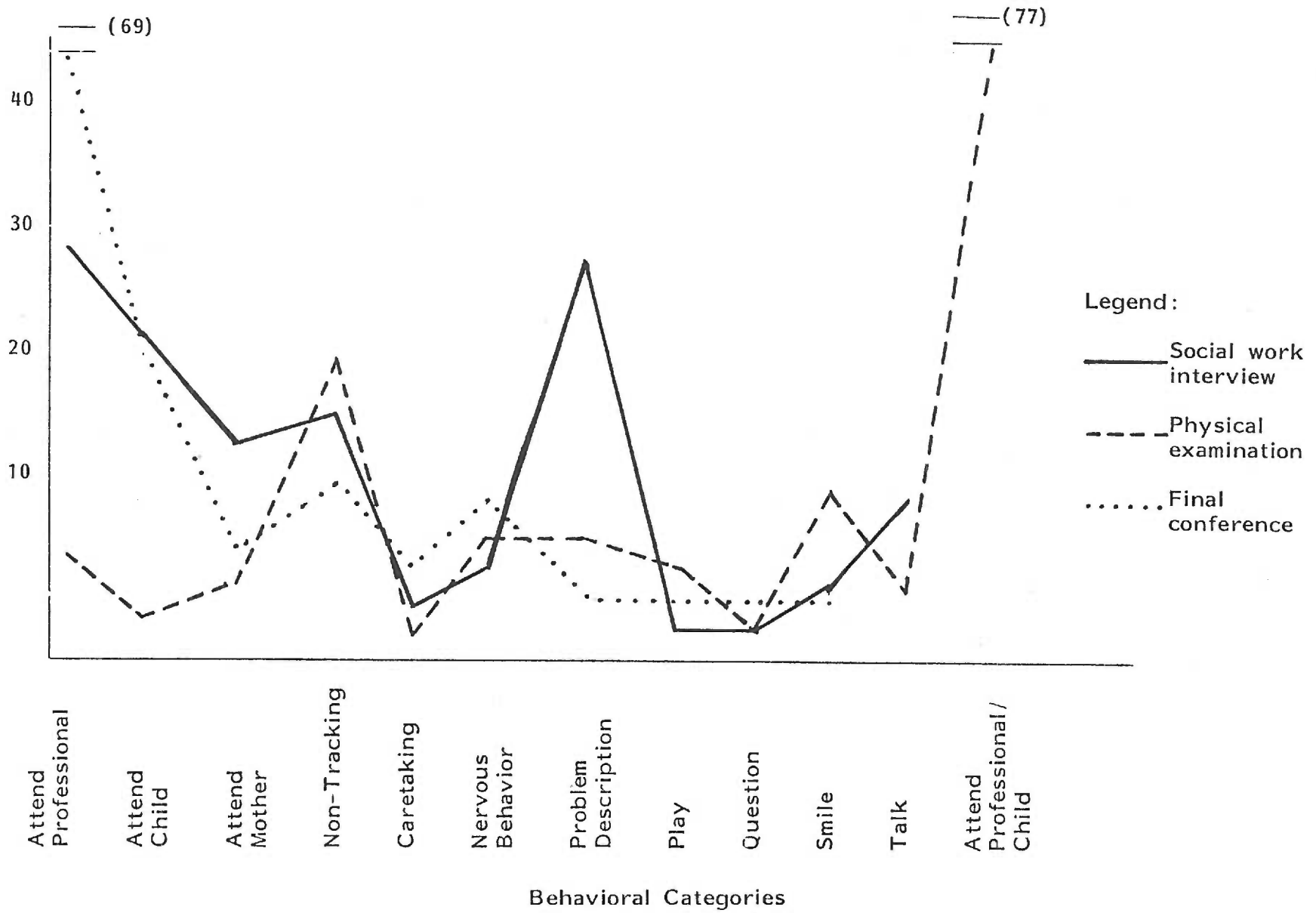

Figure 2. Profile of means for nine predominant behavioral categories for three observation periods.

category. Data analysis for these two behaviors included mean frequency and correlations with other behavioral categories. These analyses are reported with the results for each session.

Three sessions had incomplete data: a social work interview and two final conferences. During the social work interview one father was present for only 2.5 minutes when he was asked by another professional to accompany his child for a painful procedure. The interview continued in his absence. The father returned for the final minute in the interview thus the observer was only able to code a total of 3.5 minutes. Two final conferences had missing data as the sessions did not last the full ten minutes. Statistical adjustments were made to estimate the missing measures for each session based on the father's existing data for that session.

If one behavioral category had been coded in each five second interval for ten minutes, the result would have yielded a total of 120 observations per session. It should be noted that because of the decision to code behaviors which occurred at the same time, and the situations resulting in missing data, the total number of behaviors recorded per session ranged from 48-165.

Frequency of Behaviors and Their Correlations for Individual Sessions

Social work interview. The purpose of the open-ended social work interview is to provide an opportunity for family assessment, and identification of available community resources. Topics frequently discussed include financial status of the family, support systems, marital relationship, opportunities for recreation, home follow-up,

arranging for social security application, and future plans for child bearing.

Seven behaviors comprise 91% of this observation period namely: Attend, Problem Description, Non-Tracking, Caretaking, Talk, Nervous Behavior, and Smile. When the Attending behavior (See Table 4) was analyzed further, the results indicate that 46% of the fathers' Attending behavior was directed toward the professional, 33% toward his child, and 21% toward his wife. Attending to the professional and mother accounted for 34% or approximately 3.5 minutes of the soical work interview. Attending to the professional and mother seemed to indicate a non-verbal participation of the father by following the flow of conversation between these two participants.

The father behaviors which seemed to indicate an active verbal participation in the session were Problem Description, and Talk comprising three minutes (32%) of the session. Combined verbal and non-verbal behaviors which appeared to connote an active participation of the father comprised 6.5 minutes (66%) of this session. Non-Tracking by definition implies that the father's attention does not appear to be focused on any specific activity related to the purpose of the session. It includes behaviors such as looking out the window, reading, looking down at the floor or around the room. Fathers engaged in these activities a little more than one minute (12%) of the observation period.

Attend Child and Caretaking, both child-oriented behaviors, made up the remaining portion of the session and comprised a little less than two minutes (19%) of the total observation time. Smile was

coded almost exclusively with Attending behavior during the social work interview and had a mean frequency of 4.41. Nervous Behaviors with a mean frequency of 4.0 was coded equally between the four behavioral categories of Attend, Non-Tracking, Talk, and Problem Description.

In summary, behaviors connoting verbal and non-verbal participation during the social work interview comprised 6.5 minutes of the ten minute observation period. Behavior which seemed to indicate a mental non-presence with the target of the session or child-related activities occurred for about one minute. Child-oriented activities of Caretaking and Attending to the child made-up most of the remaining two minutes. Smile was more frequently associated with overall Attending behavior, while Nervous Behavior was evident with four verbal and non-verbal behaviors.

To examine the strength of the relationships among behaviors within the social work interview, Kendall's tau correlations ($p \leq .05$) between behaviors are represented in Figure 3. Correlations between the predominant behaviors appear in Appendix D.

A patterning of behavior is suggested by the correlations in the diagram. The fathers who Attend to their child during this session also do more Playing and Caretaking. When the father is engaged in these child-oriented activities he does less describing of problems and talking. The reverse is also true. Fathers who do more Problem Description and Talking participate in fewer child-oriented activities. A negative correlation between verbal behaviors and child-oriented activities is suggested by the data. No significant correlations were

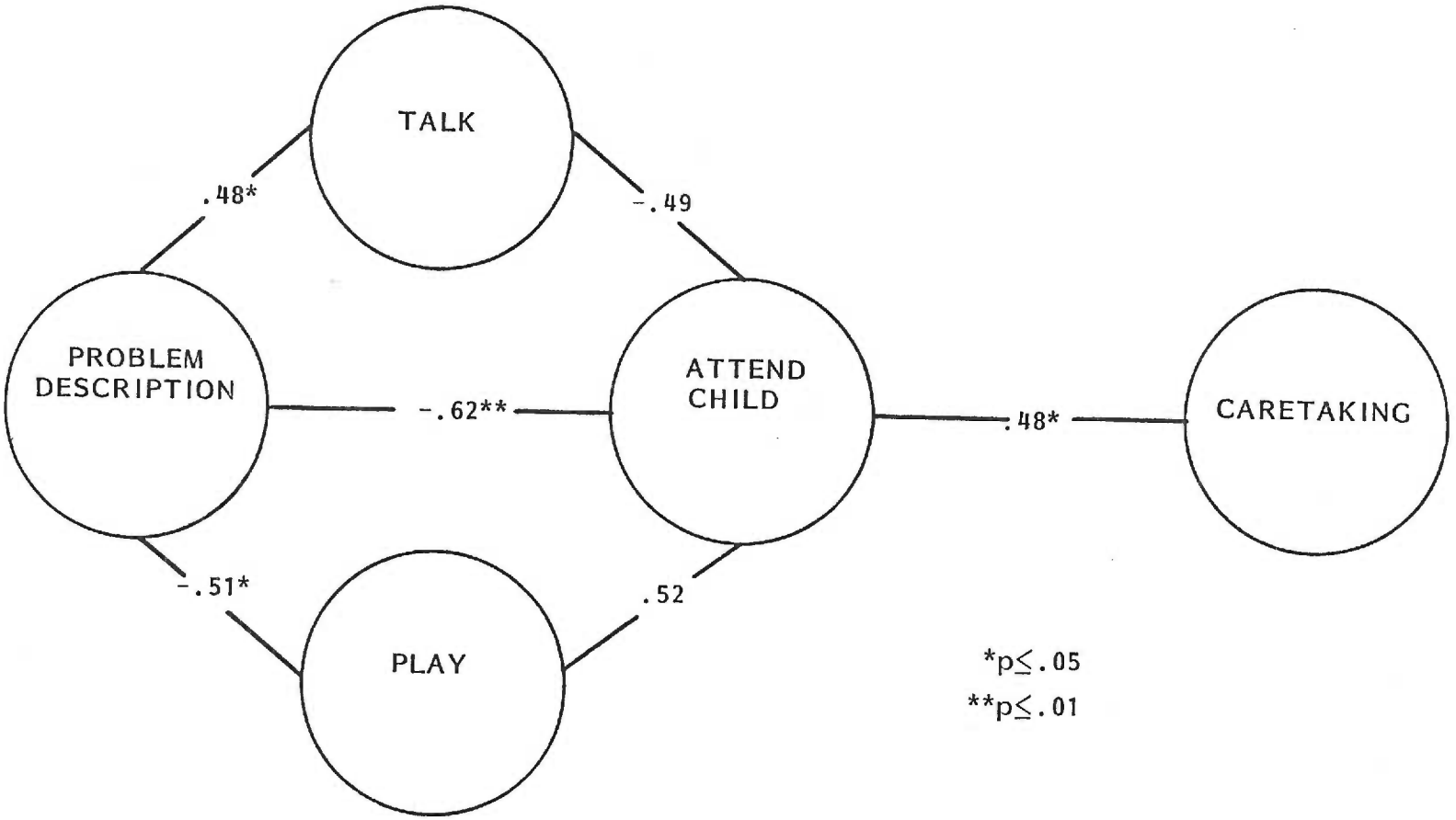

Figure 3. Significant Kendall's tau correlations between father behaviors during the social work interview.

found between non-verbal participatory behaviors and child-oriented behaviors.

Physical examination. The physical examination involves a systematic "hands-on" evaluation of the child that is preceded by a health history interview with the parents. Most children were examined on the table present in all rooms. All but one father observed at least some portion of the physical examination. Often because of the room size and furniture arrangement it was necessary for fathers to get up from their chairs in order to observe the examination process.

Primary behaviors exhibited during the social work interview and the physical examination were identical with the exception of Play which replaced Caretaking during the second session, however, the mean frequencies varied. Attending behavior comprised a little more than seven minutes (72%) of this observation period as compared to five minutes (51%) of the first session. When Attending behavior was examined further (Table 4), it was noted that of the total Attending behavior, 89% was directed toward observing the physical examination process. The observer's ability to distinguish the focus of the father's Attending behavior toward the professional, child, or mother proved to be difficult during this session. For this reason, when the father was Attending to the focus of the physical examination, Attend was coded for both professional and child.

Problem Description and Talk comprised only 45 seconds (7%) of this observation period compared to three minutes (32%) of the social work interview. Non-Tracking was observed for approximately 1.5 minutes (15%) during the physical examination, a slight increase

from 1.25 minutes (12%) during the social work interview.

The incidence of Play increased from a mean frequency of .83 to 4.08 between the social work interview and the physical examination. However, when the absolute freqency of Play was examined this increase was found to be the primary result of one father, of Mexican American descent, who was observed Playing with this child 42 times or a total of 3.5 minutes (35%) of the observation period. These data are displayed in Table 5.

The behavioral category Smile had a mean frequency of 10.4 during this session, this is an increase of 6.4 from the social work session. In both sessions however, Smile was coded almost exclusively with the Attend behavioral category. The mean frequency of Nervous Behavior was 5.0 during this session. This is a slight increase from the first session and was observed equally with the two behavioral categories: Attend and Non-Tracking.

Correlations between the predominant behaviors for this session appear in Appendix E. Significant Kendall's tau correlation ($p \leq .05$) among three of these predominant behavors are shown in Figure 4. These three behaviors account for over eight minutes (81%) of the observation period of the physical examination.

The three behavioral categories represent a patterning consistent with their definitions. Fathers who Attend to the professional/child dyad and Talk during the physical examination do less Non-Tracking. Conversely, fathers who engage in Non-Tracking are less likely to be verbal (Talk) or non-verbal (Attend Professional/Child) participants with the focus of the session.

Table 5

Absolute Frequency of Play

During the Physical Examination

Number of fathers	Frequency of Play
8	0
1	1
1	2
1	4
1	42
Total 12	49

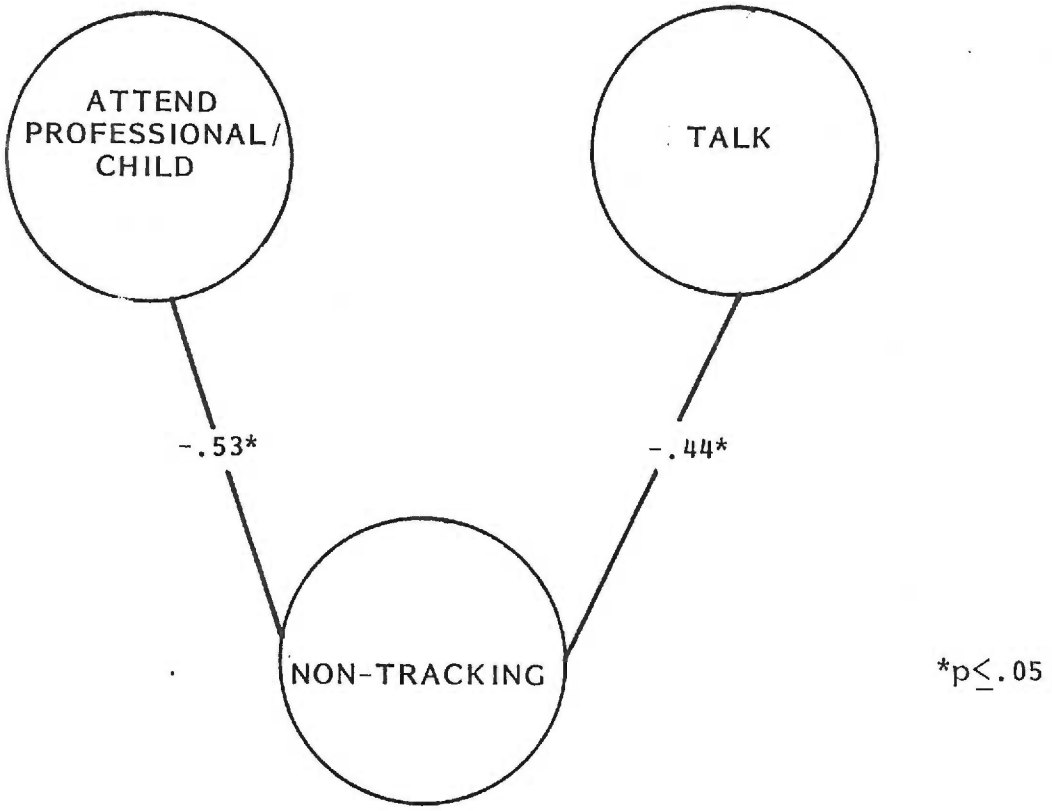

Figure 4. Significant Kendall's tau correlations between father behaviors during the physical examination.

In summary, the physical examination was characterized by a high level of participatory behavior as evidenced by the high mean frequency of Attending to the professional/child. However, the participation in this session was predominantly non-verbal, rather than a mixture of verbal and non-verbal, as was the case during the social work interview. This finding seems appropriate given the fact that the physical examination in this setting follows the health history interview when verbal behavior is very frequent. Should the health history interview and physical examination be conducted simultaneously, verbal behaviors would probably be observed more frequently. During the ten minute observation period fathers on the average spent 6.5 minutes observing the physical examination process, 1.5 minutes not paying attention, and 45 seconds in verbal activities. The remaining time was taken-up by other Attending behavior and a variety of verbal activities (See Table 3).

The significant Kendall's tau correlations of the three predominant behaviors in this session suggest a patterning of behavior consistent with the structure of the setting and the category definitions. Those fathers who focus on the purpose of the session and participate either verbally or non-verbally are less non-attentive.

Final conference. The purpose of the final conference is to share information and recommendations resulting from the health care visit with the parents. This session is usually facilitated by the physician, and occasionally in conjunction with the social worker.

Again, with some slight variations, many of the same primary behaviors of the first two sessions continued as predominant behaviors.

Although the behaviors remained essentially the same, the mean frequency of occurrence and correlations changed. Total Attending behavior accounted for a little more than 7.5 minutes (77%) of the observation period.

The data from Table 4 allows further description of the Attending behavior. Seventy-five percent of the father's attending behavior in this session was directed toward the professional and comprises 5.5 minutes of the observation period. Only four percent (25 seconds) of the father's Attending behavior was directed toward the mother.

Non-Tracking occurred less frequently than either of the other two sessions observed. The mean frequency of 8.68 accounts for only 45 seconds (7%) of the final conference time. Fathers demonstrated the highest frequency of Attending behavior and lowest frequency of Non-attending behavior in this session. Since the purpose of this session is to share findings regarding the child, this behavior could indicate an attempt on the father's part to listen and comprehend the information being given.

The two verbal behavioral categories observed most frequently in this session were Talk and Question. Together these behaviors account for less than 30 seconds (4%) of the observation period. The amount of time spent asking questions was only 20 seconds. Given the purpose of the session and the nature of the information being given, the investigator wonders why there was not a greater amount of time spent asking questions.

The two child-oriented behaviors of Attend child and Caretaking when taken together comprise almost two minutes (19%) of the final

conference. The same means, percentages and time of observation period were observed for these two behavioral categories during the social work interview.

The mean frequency of Smile dropped markedly from the physical examination and is only half that of the social work interview. As in the other sessions Smile was coded almost exclusively (83% of the observations) with Attending behavior. Nervous Behavior increased slightly during the final conference with a mean frequency of 7.7 and was observed equally with the same behavioral categories as during the physical examination that is: Attend and Non-Tracking.

Correlations between the nine predominant behaviors for the final conference are presented in Appendix F. Six of these behaviors had significant Kendall's tau correlations ($p \leq .05$) and are presented in Figure 5. Those fathers who asked more Questions also Attended to the mother less often. There were significant correlations between Smile and Nervous Behavior. This was the only session in which these two behaviors were significantly correlated.

In summary, fathers were highly attentive during this session as they were in the other two sessions. The limited amount of verbal behavior appears consistent with the purpose of the session in that the professional(s) present do most of the talking. The low instance of Questions during this time needs to be examined further. It suggests the need for contact with the father, and perhaps the mother to answer any questions which might arise after the parents have had time to think about the information given.

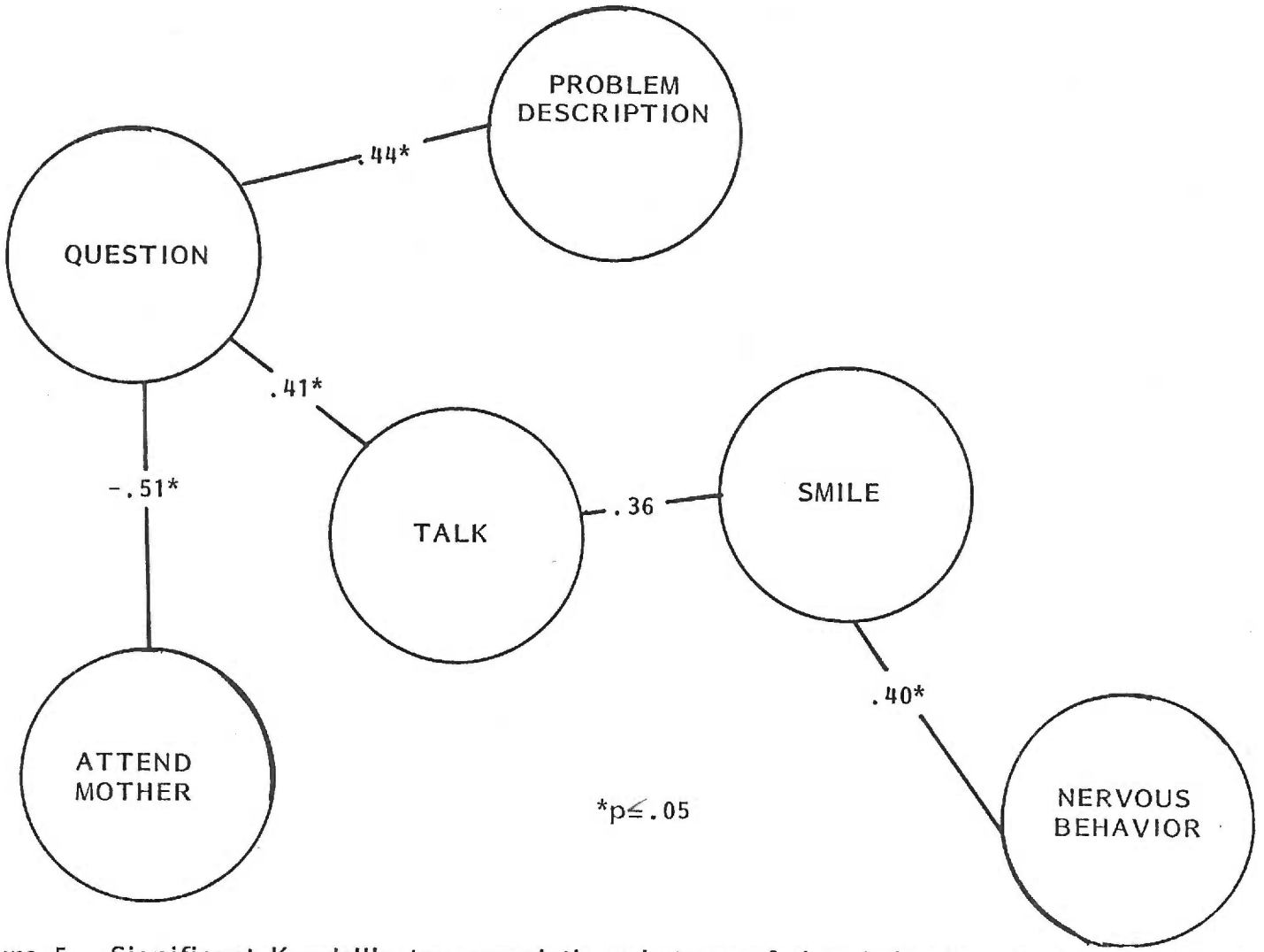

Figure 5. Significant Kendall's tau correlations between father behaviors during the final conference.

The child-oriented activities of fathers during the final conference and the social work interview are almost identical with respect to frequency and amount of time observed. In both sessions fathers would frequently Attend to their children as the mother and professional would discuss some aspect of the child's status and progress. Although this study did not attempt to explore any connection between behavior exhibited and thoughts or feelings of the father, it seemed to the investigator that the father would Attend to his child as a way of providing a point of reference and a "taking-in" of the discussion going on around him. The study did not focus on the activity level of the child which could also be a variable related to the frequency of child-oriented activities.

Variation and Consistency of Father Behavior Throughout the Three Observation Periods

A repeated measures analysis of variance (ANOVA) was employed for each of the predominant behaviors to test whether the mean frequency of each behavior differed significantly across the three sessions. These analyses allow examination of how fathers' behavior varies with respect to different professional activities.

A summary of the results for the repeated measures ANOVA is shown in Table 6. There were significant differences between sessions for five of the behaviors examined: Attend Professional, Attend Mother, Problem Description, Smile and Talk. To determine which of the sessions differed significantly from one another Tukey's post hoc procedure was employed.

Table 6

Summary of Repeated Measures ANOVA for Comparing Fathers' Behavior Across the Three Sessions on Nine Selected Behavioral Categories

Behavior	Session: Social Work Interview Mean (SD)	Session: Physcial Examination Mean (SD)	Session: Final Conference Mean (SD)	F(2.22)	Significant Pairwise Comparisons (Tukey Procedure)
Attend Professional	27.80 (20.89)	a	65.88 (19.39)	84.95***[b]	III>I[c]
Child	20.45 (19.92)	a	18.95 (15.70)	.23[b]	[c]
Mother	13.22 (14.11)	1.67 (1.92)	4.91 (6.78)	4.71*	I>II
Non-Tracking	13.90 (9.50)	17.67 (26.27)	8.69 (10.72)	.49	
Caretaking	3.08 (9.50)	.92 (1.56)	4.10 (6.09)	1.19	
Nervous Behavior	4.00 (5.72)	5.00 (6.70)	7.66 (15.57)	.69	
Problem Description	26.98 (25.83)	5.33 (6.04)	1.89 (2.60)	10.70***	I>II I>III
Question	1.07 (1.54)	.50 (.90)	2.29 (2.80)	3.24	
Smile	4.41 (5.51)	10.42 (8.88)	2.22 (2.26)	6.46**	II>I II>III
Talk	10.90 (10.38)	2.83 (2.08)	2.74 (2.71)	8.61**	I>II I>III
Play	.83 (1.99)	4.08 (12.00)	1.71 (3.17)	.60	

[a]For the physical examination observation period, the behavioral categories of Attend Professional and Attend Child were merged and treated conceptually as one category because Attending to the Professional could not be distinguished from Attending to the Child. Thus Physical Examination means for the two separate categories (Attend Professional and Attend Child) were unavailable and could not be compared to their counterparts in the social work interview and the final conference.

[b]df for this F test = 1, 11

[c]Because there were only two means, the Tukey procedure was unnecessary.

*$p \leq .05$ **$p \leq .01$ ***$p \leq .001$

Table 6 indicates three behaviors which were more frequent during the social work interview than during the physical examination: Attend Mother, Problem Description, and Talk. The higher incidence of Problem Description and Talk during the social work interview does not seem unusual given that this session is an interview and information is being requested from the parents, usually requiring a verbal response. Attending to the mother during this session usually indicated the father was listening to her talking or observing her response to questions from the social worker.

Fathers Smiled more frequently during the physical examination than during the social work interview or the final conference. Visual inspection of the data indicates that this Smiling by fathers was usually directed toward their children. The physical examination was the only session of the three in which the focus of professional activity was the child, the other two concerned the child but the parents were the primary participants.

During the final conference fathers Attended to the professional more than during the social work interview. This finding also seems appropriate in that the father is in a listener role as is his wife. This is not to say that he does not listen during other sessions, but the structure of the professional giving information to the family would suggest an appropriate response of attention, listening, and questioning. Six of the behaviors listed in Table 6 did not differ significantly across the three sessions: Attend Child, Non-Tracking, Caretaking, Nervous Behavior, Question, and Play.

The repeated measures ANOVA procedure describes fathers as a group and how their average behavior tends to vary across sessions related to various professional activities. However, it does not give a picture of how consistent behavior is across sessions for individual fathers. For example, do fathers who Talk more than other fathers during the social work interview also Talk more during the physical examination and/or the final conference? In order to address this question, Kendall's tau correlations were computed between pairs of sessions for nine selected behaviors and are presented in Table 7. (Note: Because this was an exploratory study, a more liberal significance level [α =.10] was used to test the significance of Kendall's tau in order to improve the detection of potentially important relationships).

The results in Table 7 indicate that five of the behaviors were positively related between the social work interview and the final conference: Attend Professional, Problem Description, Talk, Question, and Smile. Fathers who exhibit relatively high levels of Attending to the Professional and Smiling during the social work interview also exhibit relatively high levels of these behaviors during the final conference. It should also be noted that the three main verbal behaviors of Problem Description, Talk, and Question were significantly correlated during these two sessions.

Of the child-oriented activities, Attend Child, Play, and Caretaking, there was only one significant correlation among any of the sessions. that is, Caretaking between the physical examination and the final conference. The data from Table 6 indicates there were no significant

Table 7

Kendall's tau Correlations of Nine Predominant Father Behaviors Between the Three Observation Periods

Behavioral Category	Sessions Correlated		
	Social work Interview / Physical Examination	Physical Examination / Final Conference	Social work Interview / Final Conference
Attend Professional	.08	.11	.30**
Child	.19	-.04	.08
Mother	-.10	-.04	.11
Non-Tracking	.32*	-.16	.09
Caretaking	.12	.64***	-.17
Nervous Behavior	.60***	.45***	.27
Problem Description	.05	.18	.41**
Play	-.28	-.16	-.28
Question	.02	.11	.40*
Smile	.07	.20	.48**
Talk	.62**	.21	.41**

Note: N = 12
*p≤.10 **p≤.05 ***p≤.01

differences in the average levels of these behaviors across sessions. These two sets of data indicate that fathers overall tended to demonstrate these behaviors with about the same frequency, but on an individual basis fathers were not consistent with these activities.

The data in Table 6 indicates that there were no significant differences in the level of Nervous Behavior demonstrated across the observation periods for fathers as a group. However, the data in Table 7 indicates that Nervous Behavior during the physical examination was significantly associated with Nervous Behavior during the social work interview and the final conference. In addition to Nervous Behavior, there were two other behaviors which were significantly correlated between the social work interview and the physical examination, namely Non-Tracking and Talk.

Father Support Persons

All fathers responded to the portion of the questionnaire requesting information regarding the people the father turned to for support in times of stress. The number of people identified ranged from 1 to 6, with a mean number of 3. All fathers indicated their spouse as a support person and that they "usually" turned to her. They also indicated that they "sometimes" sought out a friend. Fathers "rarely" shared troubles with clergy, brother, mother, father, fellow workers, or social worker, and "never" talked with a sister or employer.

CHAPTER IV

DISCUSSION AND RECOMMENDATIONS

The purposes of this study were: to develop a tool that would facilitate systematic observation of father behaviors of their children in a multi-disciplinary health care setting; and utilizing the tool, observe fathers in the same setting to explore selected questions related to behaviors exhibited. Discussion and recommendations relative to the tool development precede that of the specific questions which guided the testing of the tool.

Tool Development

In the Behn study, both the health care provider and the client were observed using many of the same behaviors employed by fathers in this study. A review of the frequencies of client behaviors with means of two or more in the Behn study reveals the following ten predominant behaviors in order of prevalence: Talk, Problem Description, Attend, Question, Laugh, Normative, Complain, Humor, and Non-Tracking. For the current study Complain was not included in the Problem Description category. It can be seen that two different populations of health care clients shared six of the same predominant behavioral categories during the health care visit. It appears from the data that six of the behavioral categories originally defined by Behn and adapted by this investigator proved to be relatively effective for use in this setting. The data also suggests there are some client behaviors that may be characteristic of health care visits in different settings. Further testing of the tool in different settings would add

to the body of knowledge regarding client behavior during health care visits.

The accurate recording of the target of the father's behavior proved to be problematic especially during the physical examination. Further development and refinement of the tool should address this problem, particularly when there are more than two people present during the health care visit. Because the Attending behavior was so prevalent with the study population, refinement of the tool needs to address revision of this category to incorporate the target of the Attending behavior in the category definition. In order to facilitate use as a clinical tool, consideration must be given to simplification of the coding system so that it is easier to learn and more manageable.

Further development of the research tool should also address a means by which the training procedure could be facilitated and standardized. The development of several video tapes for training with final interrater reliability established through field observation or a different video tape would be one approach. Behn (1981) provides a detailed explanation of one approach to observer training utilizing video tapes and field observation. A further refinement for determining interrater reliability would be the use of the statistical procedure, Cowen's kappa. This procedure would allow the investigator a more critical look at the behavioral categories, and an opportunity to establish interrater reliability for each behavior category as well as an overall interrater reliability.

The sampling strategy of every five second coding was believed by the observers to capture almost all of the behaviors exhibited with

this population. Behn used 30 second coding with the observer coding all behavior in order of sequence for the two participants during the time interval. Determination of sampling strategies would in part need to be based on the number of observers coding behavior and the number of people being observed. Coding sheets would need to be revised to reflect changes made in sampling strategies. If the observer were to be present in the same room as the client(s), use of an earplug to hear beeps or some other inaudible timing mechanism would be necessary to avoid disruption of the visit.

The investigator believes at this point that the greatest potential for the Father Behavioral Observation Tool lies in the area of research for expanding the knowledge base regarding behaviors of participants in health care visits. The original Behn tool was used to observe health care providers and their male and female clients, thus the Father Behavioral Observation Tool could potentially be used for observation of mothers and professionals as well as fathers.

The use of this tool to collect information regarding all of the adult participants in the health care visit also carries the possibility of increasing the body of nursing knowledge with respect to the nursing process as outlined by King. The primary purpose of the tool is to categorize and quantify the behavior exhibited by fathers during the health care visit of their child. The tool provides a method of organizing and transforming data gathered from what nurses see and hear, which then provides a basis for further interpretation and intervention. The purpose of the tool coincides with King's defintion of perception as a process of organizing, interpreting, and transforming

Information from sense data and memory.

Finally, the tool provides one method by which a number of factors identified in the literature and the results of the current study could be further investigated. Hypotheses which could be tested include correlation between father behavior and age of father, educational level, socio-economic status, cultural background, and sex of child.

Testing of the Father Behavioral Observation Tool

Conclusions based on the findings regarding father behaviors observed during the testing of the tool must be approached with caution because of the limited sample size. Further, it needs to be noted that observations were made of one person during an interactive process. Without data from the other participants interpretation for meaning is incomplete.

Predominant Behaviors Exhibited During the Three Observation Periods of the Clinic Visit

Because there were no other studies found in the literature which identified specific behaviors exhibited by fathers of developmentally disabled children during a visit to a multi-disciplinary clinic facility, the behaviors identified in this study should be viewed as preliminary findings which must be verified further through research. However, the findings of Behn (1981) and this investigator suggest there are common behaviors exhibited during a health care visit by each of the participants.

Frequency of Behaviors and Their Patterns for Individual Sessions

Social Work Interview. The mean frequency of behaviors and the signficant correlations between behaviors within each of the sessions, provide evidence of a pattern of behaviors exhibited by most fathers during a health care visit. However, not all fathers fit into this "overall" pattern. This seemed evident during the social work interview where the investigator informally observed three different "patterns" of father behavior.

The "overall" style consisted of a behavioral repetoire supported by the statistical data. These data included an almost equal amount of non-verbal behaviors of Attending to the professional and mother, and verbal activities of Problem Description and Talk. Another major clustering of behaviors were those termed by the investigator as child-oriented activities namely Attending to the child and Caretaking. Most fathers permitted their wives to do the talking and would speak most frequently when questions were made directly to them.

One father, with an average income of less than $5,000, a ninth grade education, and currently unemployed, demonstrated a different style during this interview. He provided almost all of the information and Problem Description while his wife listened and tended to the caretaking needs. This one instance is in direct contradiction with the conclusions drawn by Bell, Trieschman, and Vogel (1961). They stated that the discrepancies in values between the middle class therapist and the working class father, plus the predominance of verbal activity during visits, were viewed as major barriers to father participation

in treatment. It is also of interest that this father indicated six people he could turn to in times of stress.

The third "style" observed was that of a father who had one of the highest income levels, the highest educational status, and was also currently unemployed. This father Attended only to the mother during the flow of conversation between the mother and professional. Eighty-seven percent (nearly nine minutes) of the observation period was spent in child-oriented activities often when the child did not seem to need or demand attention. There was no attempt on the part of the social worker to acknowledge or explore the meaning of the father's avoidance behavior during this session. This father indicated only one support person on his questionnaire. He selected his wife as the person whom he most turned in times of stress with a frequency of "sometimes."

Whether these are patterns of behavior that are exhibited by fathers generally or isolated instances cannot be determined from a small sample size. However, they raise questions for further research.

Research with a large randomized sample, and analysis of the data using a factor analytic search for patterns is needed. Factor analysis should yield a variety of groupings of father behaviors. These different patterns of behaviors may require formulation of different nursing approaches and strategies which need to be tested.

Physical Examination. The pattern most frequently observed in this session was one where fathers Attended to the physical examination process with moments of Non-Tracking interspersed. The father who

was verbally responsive during the social work interview continued to be an active participant during the physical examination. His verbal behavior continued at a higher level than was observed in other fathers, and his Non-Tracking behavior was lower. The father who engaged in child-oriented activities during the social work interview read a magazine throughout the ten minutes of the physical examination observations.

Final Conference. The pattern most frequently observed during the final conference was that of an attentive father who listened to information, but asked few Questions. Frequency and length of time spent in child-oriented activities during the final conference and social work interview were almost identical.

The significant behavioral correlations for this session are not as easily interpreted. The fathers with the two behavior patterns observed during the first two sessions continued the same patterns during the final conference. The verbal content of the father demonstrating the avoidance behavior during the final conference suggests that he may have been in the anger stage of grieving regarding his child with cerebral palsy. He repeatedly expressed a desire to "get to the bottom of why this happened," and frustration and anger with his daughter's hospital care. No attempt was made to deal with this father's behavior by any of the professionals. It is possible that because of the number of health care professionals seeing a family at the clinic, the consistency of this type of behavior could go unnoticed or be interpreted as situationally related to the individual session.

Variation and Consistency of Father Behaviors Throughout the Three Observation Periods

The results of the repeated measures analysis of variance (ANOVA) suggested two findings regarding fathers as a group: there are behaviors which seemed to be situationally related, and other behaviors which remained consistent in the three different settings. For example, fathers did more Problem Description and Talking during the social work interview than during the physical examination or final conference; while the level of Nervous Behavior and Non-Tracking remained relatively consistent throughout the three observation periods. The small sample size limits any conclusions that can be drawn but provides exploratory data for further research. If a researcher were interested in observing specific behaviors, the data could provide some guidance. For example, the social work interview had the highest incidence of verbal behavior, the physical examination the highest frequency of Smiling, and the final conference the greatest amount of Attending to the professional. The data does not give information as to why these differences occur where they do, although the structure and purpose of the setting must be considered as probable variables.

The data from the Kendall's tau correlations suggest that there may be some behaviors which individual fathers exhibit with varying levels of consistency in different settings. Nervous Behavior was the only behavior which was significantly correlated during two different session comparisons. Behn (1981) concluded that Nervous Behavior was not influenced by role with regard to frequency; health care provider and client exhibited no significant difference in terms of

frequency of occurrence. These findings need to be explored through further reserach relating Nervous Behavior and specific personality characteristics.

Father Support Persons

All but one father indicated their spouse/partner as a primary support person to whom they "usually" or "always" turned in times of stress. This finding is consistent with McKeever (1981) who reported fathers in her study considered their spouse as their sole supporter and confidant. The low incidence of seeking support from family members was also not suprising given Burton's (1975) report that 65% of the fathers in her study could not discuss their ill child with their relatives. Research on social support is in the formulation stage, but several researchers have suggested the positive correlation of adequate support systems and positive physical and mental health.

If further research validates that fathers of children with developmental deviations exhibit certain behaviors during a clinic visit then the findings have implications for nursing practice. How health care providers perceive these fathers influences how they interact with them, Behn (1981) found that health care providers "definely" did not like passive clients. They were drawn to clients who were active rather than passive. Of the parents in this study, the father was usually less verbal than the mother, which could result in a perception of a passive father and an active mother. If the attitudes of health care providers in this setting are similar to those in the Behn study, then encouraging clients to be direct and assertive concerning their

wants and needs would be one approach to nursing intervention which could be studied for effectiveness. Whether the father participates in an active or passive capacity should not be interpreted as a sign that he is not interested in his child or the occurrences of the clinic visit. It must also be borne in mind that fathers may be satisfied with the type of participation they exhibit during the clinic visit, and that as health care professionals we can be perceptive to the needs of those clients who are direct and assertive as well as to those who are not.

Limitations

Two limitations inhibit the interpretations of the data from the field observations made. First the sample size is small, and second fathers were observed during an interactive process, without gathering behavioral data from the other participants. However, a number of research questions emerge from these preliminary findings. These areas of research could prove to be important in adding to the body of knowledge regarding fathers of developmentally deviant children.

1) Is there a relationship between father behavior in clinic and socio-economic status? If such a relationship exists, what are the characteristics?
2) Are there specific behavior patterns of fathers with low level versus high level of social support?
3) Is there a difference between fathers of developmentally deviant children and fathers of "healthy" children with regards to the social support system?

4) Is there a difference between fathers of developmentally deviant children and fathers of "healthy" children with regards to the behaviors exhibited during a health care visit?

5) What is the relationship of the father's role in the family and his behavior exhibited during the clinic visit?

6) What are the attitudes of health care providers, specifically nurses, toward active and passive fathers?

7) How are the attitudes of health care providers related to the behaviors exhibited by fathers?

8) Is there a relationship between father behaviors and who the professional directs her/his questions and comments to?

9) Are the correlations between behaviors exhibited by both mothers and fathers?

10) Are there correlations between health care provider behaviors and father behaviors?

11) Is there a correlation between father behaviors and gender of the health care provider?

CHAPTER V

SUMMARY AND CONCLUSIONS

Fathers of developmentally disabled children have indicated that they want to be included as an active participant in the evaluation and treatment of their child. Nurses and other health care professionals who work in a multi-disciplinary health care setting are provided with an excellent opportunity to incude fathers in the evaluation and treatment processes. This is particularly important since fathers have indicated a desire to be more involved with their child's health care. However, very little is known about what fathers do during such visits or to what extent they are included or involve themselves in the visit activities. This descriptive and correlational study had two purposes. The first was to develop a tool that would facilitate systematic observation of father behaviors during a visit to a multi-disciplinary child health care facility; and the second was to examine questions regarding father behaviors through testing of the tool.

A behavioral observation tool and coding system developed by Dr. Joan Behn, Portland State University, was revised for use with the study population following a three month piloting period. The Father Behavioral Observation Tool was developed for use in observing fathers during the social work interview, physical examination, and final conference of their child's visit. Behavioral category definition, sampling strategies, and observer training were addressed. Twenty-six behavioral categories and codes were included in the final tool. The accompanying coding sheet was devised to record the father behavior and the target of the behavior every five seconds for a ten minute observation period. Training of the observer occurred

over a period of three months and was carried out in conjunction with other tool development activities. Interrater reliability scores ranged from .89 to .96.

The Father Behavioral Observation Tool was used to examine questions regarding predominant father behaviors exhibited during the social work interview, physical examination, and final conference of the clinic visit. In addition, correlations between behaviors within sessions, and the variation and consistency of father behaviors in relation to different professional activities were explored. A questionnaire was developed to obtain demographic and person support data of the sample.

The study subjects for the field observation phase consisted of 12 fathers of children with varying levels of developmental deviation. The convenience sample was recruited from families attending one of three selected clinics at the Child Development and Rehabilitation Center of Oregon (CDRC). Each father was observed for ten minutes during each of the three sessions. All of the fathers who were asked agreed to participate in both phases of the study.

Nine of the 26 behaviors were identified as being the most predominant for all three sessions, namely Attend, Non-Tracking, Problem Description, Talk, Question, Play, Caretaking, Smile, and Nervous Behavior. Although these behaviors remained in evidence throughout the three sessions, the means of the behavior fluctuated from one session to another. Because attending behavior comprised between 51% (5 minutes) and 77% (7.5 minutes) of each session it was further

analyzed for the target (professional, mother, child) of the fathers behavior.

Significant Kendall's tau correlations ($p \leq .05$) of father behaviors were found in each of the three sessions observed. During the social work interview child-oriented activities of Attending of the child, Play, and Caretaking were negatively correlated with verbal behaviors of Problem Description, Talk. Non-Tracking was negatively correlated with both Talk and Attending to the professional/child dyad during the process of the physical examination. Significant correlations were found during the final conference among the predominant verbal behaviors of Question, Talk, and Problem Description. The level of Questioning was negatively correlated with the level of Attending to the mother. Smile and Nervous Behavior were positively correlated during this session.

Analysis fo the findings showed that five behavioral means demonstrated statistically significant differences between the varying professional activities observed. During the social work interview fathers did more Problem Description and Talking than during the physical examination. Fathers did more Smiling during physical examination than during either of the other two sessions, and Attended to the professional more during the final conference than during the social work interview.

Behavioral comparisons between individual sessions revealed significant correlations ($p \leq .05$) for all comparisons. Two behaviors were positively correlated between the social work interview and the physical examination, Nervous Behavior and Talk; and Nervous Behavior

and Caretaking were positively correlated between the physical examination and the final conference. There were four behaviors which were positively correlated between the social work interview and the final conference, namely Attending to the professional, Problem Description, Smile and Talk.

All fathers responded to the questionnaire item eliciting information regarding support persons in times of stress. The mean number of people that fathers indicated as resources was three with a range of one to six. A spouse/partner was the most frequently sought out person in times of stress and "sometimes" a friend.

Two conclusions can be drawn from this research study. First, fathers of developmentally disabled children are willing research participants in this particular clinic setting. Second, the Father Behavioral Observation Tool with further testing and refinement has potential as a research instrument for adding to the body of knowledge regarding fathers of children with developmental deviation. No conclusions are drawn from the findings of the field observation results, however, the results provide exploratory data upon which research questions have been identified.

As nurses become attuned to families as clients, the needs of individual family members must be borne in mind. Further research regarding fathers of developmentally disabled children and incorporation of significant results into practice will serve to strengthen nursing knowledge of families with special needs.

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APPENDIX A

Behavioral Category Definitions and Codes

Agree (AG)

Affirmative response which occurs when one person expresses an opinion and the other person's response indicates agreement, or acceptance of their interpretation.

Affirmative response can be verbal or non-verbal.

Response can occur after a long or short pause, while other speaker is speaking, or at the end of a sentence.

Examples:

I think we should get a hearing check on him today. (PD) I agree (AG)

I think she has made some good progress in the last six months. (SS) We think so too. (AG)

Disagree (DG)

Statement in which one person expresses an opinion and the other person's response indicates disagreement.

Can be headshaking if clearly meant for disagreement.

Examples:

I think you must be having problems understanding the doctor. Don't you? (PD/QU) No, I don't think so. (DG)

I didn't come too early did I? (QU) Yes, you did. (DG)

Attend (AT)

Non-verbal behavior which occurs when father is maintaining eye contact and general orientation toward the professional, child, or mother.

Brief verbal or non-verbal response emitted by father while a speaker is speaking or during a pause in speech.

Attend - continued

Responses indicating that the speaker's comments are being listened to (not to indicate agreement with the content of the speaker's comments).

Examples:

head nods (AT) (if made while speaker is speaking to indicate that the listener is following what is said.)

uh huh (")

yeah (")

Non-Tracking (NT)

Non-verbal behavior which is characterized by lack of eye contact or general orientation toward the professional, mother, child, or main activity of the session.

Example:

Looking out window, reading, looking down at the floor or around the room.

Compliance (CO)

Coded when a person's behavior fulfills the requirements of an immediately preceding command/request. This behavior can be verbal, indicating the person intends to comply.

Example:

Would you please hold your child while I examine her? (If the father does, code CO).

Command (CM)

Satement of request for an action. Statement can be delivered as an imperative. "I want you to" and "let me" statements are coded CM.

Examples:

Come her and sit down. (CM)
Play with this toy. (CM)
Would you sit over here and wait? (CM)

Non-comply (NC)

Code when a person's behavior does not fulfill the requirements of an immediately preceding command/request. This behavior can be verbal, indicating the person does not intend to comply.

Examples:

Come and watch the physical therapist while she works with your child. (If father does not go, code NC)

Be sure to keep your appointment with the audiologist today. (CM) No, I can't do that today. (NC)

Caretaking (CT)

Non-verbal behavior involving activities of daily living associated with child care.

Examples:

Dressing, feeding, diaper changing, picking up toys, assisting child in and out of the wheelchair.

Disregard (DR)

Any behavior that appears to be dehumanizing or objectifying of the other person. Assumptions that the other person is nonfunctioning or incompetent, in excess of the actual apparent situation.

Talking or making judgments about the other person without including them in the evaluation.

Ignoring or disregarding the intent or content of a communication from the other person.

Example:

Rough handling when addressing/caring for child as if a chore rather than assisting.

Humor (HM)

Statements clearly intended to be humorous and usually lighthearted in tone. Mild and gentle teasing, not to be coded if at all humiliating or critical. Statements which propose facetious solutions to problems.

Humor - continued

Example:

We could have taken a canoe to work today it was raining so hard. (HM)

Laugh (LA)

Coded for each separate occurrence of a laugh.

Could be double-coded with Humor, Smile, or Self-putdown.

Nervous Behavior (NB)

Non-verbal behavior coded for any behaviors which seem fidgety or uneasy. Often coded with other behaviors.

Examples:

Scratching, biting lip, leg swings, holding arms tightly folded, rubbing hands, playing with hair, rubbing the back of the neck.

Normative (NO)

Non-verbal behavior that is appropriate to the task at hand. Verbal behavior thus coded would include the reading of forms, applications, or generalized questioning from a form.

Problem Description (PD)

Statement describing present problem. Statement of clarification, often describing past problems, explaining or elaborating. Includes statements expressing dislike/disapproval with a behavior or attitude of the situation past or present. Statement must refer to a recognizable problem, i.e., child, marital problems, employment.

Example:

Joey was premature and in the intensive care unit for three months. (PD)

Positive Physical Contact (PP)

Any positive physical contact which is not Normative or required by the tasks of the situation. Most often directed at the mother or child by the father. Any time father touches another person in a friendly or affectionate manner.

Positive Physical Contact - continued

Examples:

Kissing, patting, hugging, holding hands.

Play (PL)

Verbal or non-verbal behavior where the intent is to entertain or distract the child.

Examples:

Making faces at child, cooing at baby, offering a toy, bouncing, activities involving toys, reading to a child, tickling.

Proposed Solution (PS)

Statement where father describes something he wishes the other person to do or not to do. Advise, inform teach statements--or any elaboration on advising, informing, teaching.

Examples:

Here, I'll hold her while you do that. (PS)

Try holding her this way so her head is more supported. (PS)

Question (QU)

Any statement phrased as a question. May be double coded with Problem Description and Proposed Solution.

Examples:

Where are you going? (QU)

Would you feel better talking to your wife first? (QU/PS)

Smile (SM)

Coded for each separate occurrence of a smile.

Self-putdown (SP)

Statements which are negative evaluations or criticims of one's own behavior, appearance, or characteristics.

Self-putdown - continued

Examples:

I should have known better. (SP)

Why did I let it go so long? (SP/QU)

Supportive Statement (SS)

Statement which indicates that the respondent personally favors something the other has said or done. Statement which recognizes that the other has performed a desired behavior if made in a way to express approval. Code S/SS when the statement is applied to oneself.

Examples:

I really like what you are doing. (SS)

I really did it right this time. (S/SS)

Talk (TA)

Simple yes/no responses where no opinion or agreement is indicated. Head shaking if meant to indicate yes/no responses. Verbal responses indicating appreciation for service. Responses that do not fit into any other verbal category.

Examples:

Is it raining today? (QU) No. It isn't. (TA)

My daughter came to visit last week. (TA)

Sadness (SA)

Verbal or non-verbal behavior expressing sadness.

Examples:

Crying.

It makes me sad that he's had to go through all this in his short little life. (SA)

Volunteer (VO)

Verbal or non-verbal behavior of the father undertaken in response to a perceived need for assistance without being asked.

Volunteer - continued

Examples:

Mother looks around room for diaper when changing child. Father: "I'll get it for you." (VO)

Child gets fussy on mother's lap during history taking. Father reaches over and takes child to try to quiet her. (VO/PL)

Negative Physical Contact (NP)

Non-verbal behavior which has the intent to hurt the recipient, most often associated with discipline of child.

Examples:

Spanking, slapping, pulling hair.

APPENDIX B

Coding Sheet

CODE #_____ DATE_____ CLINIC_____ SESSION_____

AG	AGREE	CT	CARETAKING	PP	POSITIVE PHYSICAL
DG	DISAGREE	DR	DISREGARD	PL	PLAY
AT	ATTEND	HM	HUMOR	PS	PROPOSED SOLUTION
NT	NON-TRACKING	LA	LAUGH	QU	QUESTION
CO	COMPLIANCE	NB	NERVOUS BEHAVIOR	SM	SMILE
CM	COMMAND	NO	NORMATIVE	SP	SELF PUTDOWN
NC	NONCOMPLIANCE	PD	PROBLEM DESCRIPTION	SS	SUPPORTIVE STATE
TA	TALK	SA	SADNESS	VO	VOLUNTEER
NP	NEG PHYSCIAL CONTACT	S/SS	SELF SUPP STATEMENT		

1	P													
	C													
	M													
2	P													
	C													
	M													
3	P													
	C													
	M													
4	P													
	C													
	M													
5	P													
	C													
	M													
6	P													
	C													
	M													
7	P													
	C													
	M													
8	P													
	C													
	M													
9	P													
	C													
	M													
10	P													
	C													
	M													

APPENDIX C

Demographic Questionnaire

QUESTIONNAIRE

CODE #_____

TYPE OF CLINIC VISIT_____

Q.1 PLEASE LIST IMMEDIATE FAMILY MEMBERS (INCLUDING YOURSELF), THEIR AGES AND SEX.

NAME	AGE	SEX
_____	____	____
_____	____	____
_____	____	____
_____	____	____

Q.2 PLEASE CIRCLE THE NUMBER OF YEARS YOU HAVE ATTENDED SCHOOL

less than 6 7 8 9 10 11 12 13 14 15 16 16+

Q.3 DO YOU HAVE A HIGH SCHOOL DIPLOMA? YES NO

Q.4a DO YOU HAVE A COLLEGE DEGREE? YES NO

Q.4b IF YES, IN WHICH FIELD? _____

Q.5 WHAT IS YOUR PRESENT OCCUPATION _____

Q.6a DO YOU HAVE A PARTICULAR RELIGIOUS AFFILIATION? YES NO

Q.6b IF YES, PLEASE NAME _____

Q.7 WHAT IS YOUR ESTIMATED YEARLY INCOME?

less than 5,000
5,000 - 9,999
10,000 - 14,999
15,000 - 19,999
20,000 - 24,999
25,000 and above

Q.8 IN TIMES OF STRESS, TO WHOM DO YOU TURN FOR SUPPORT? (Circle your answer for each person)

9.	_____clergy/minister	never	rarely	sometimes	usually	always
10.	_____spouse/partner	never	rarely	sometimes	usually	always
11.	_____brother	never	rarely	sometimes	usually	always
12.	_____sister	never	rarely	sometimes	usually	always
13.	_____mother	never	rarely	sometimes	usually	always
14.	_____father	never	rarely	sometimes	usually	always
15.	_____employer	never	rarely	sometimes	usually	always
16.	_____fellow workers	never	rarely	sometimes	usually	always
17.	_____social worker/counselor	never	rarely	sometimes	usually	always
18.	_____friend	never	rarely	sometimes	usually	always
19.	_____other (please indicate who)	never	rarely	sometimes	usually	always

APPENDIX D

Pearson Correlation Coefficeint and Kendall's tau Correlations Between Nine Predominant Behaviors During the Social Work Interview

Pearson Correlation Coefficient and Kendall's tau Correlations

Between Nine Predominant Behaviors

During the Social Work Interview

	Attend	Professional	Child	Mother	Non-Tracking	Caretaking	Nervous Behavior	Problem Description	Play	Question	Smile	Talk
Attend												
Professional	----		.43	.11	-.34	-.38	-.27	-.26	-.44	-.16	.14	.10
Child	-.18	----		-.21	.48	.38	.19	-.59*	.86***	.40	.21	-.46
Mother	.26	.05	----		.20	.10	-.01	-.24	-.36	-.42	-.03	-.30
Non-Tracking	-.31	.31	-.11	----		.11	.34	-.37	.36	-.29	-.28	.25
Caretaking	-.36	.48*	-.07	.16	----		-.30	-.22	.25	.05	-.31	-.26
Nervous Behavior	-.13	-.05	-.05	.17	-.22	----		-.04	.06	-.09	.00	.09
Problem Description	-.21	-.62**	-.14	-.15	-.36	.20	----		-.43	-.06	-.35	.21
Play	-.40	.52*	-.32	.30	.60	.03	-.51	----		.69**	.43	-.27
Question	-.14	.14	-.38	-.31	.40	-.29	-.25	.47	----		.72**	-.21
Smile	.23	.05	.15	-.17	-.12	.05	-.30	.15	.22	----		-.04
Talk	.14	-.49*	-.13	.14	-.28	.34	.48*	-.30	.24	.05	----	

Note: Pearson correlation coefficient above the diagonal; Kendall's tau correlation below the diagonal.

*p<.05 **p<.01 ***p<.001

APPENDIX E

Pearson Correlation Coefficient and Kendall's tau Correlations Between Nine Predominant Behaviors During the Physical Examination

Pearson Correlation Coefficient and Kendall's tau Correlations

Between Nine Predominant Behaviors

During the Physical Examination

	Attend Professional	Child	Mother	Non-Tracking	Caretaking	Nervous Behavior	Problem Description	Play	Question	Smile	Talk	Attend Professional/ Child
Attend Professional	----	-.16	.13	.06	-.22	.35	-.21	.04	-.11	-.11	.17	-.28
Child	.02	----	.16	-.07	-.10	-.35	-.33	.15	-.28	-.30	-.34	-.06
Mother	-.16	.37	----	.01	-.37	-.42	-.07	-.25	-.42	-.39	.21	.03
Non-Tracking	.15	.27	-.03	----	-.27	-.05	.08	-.06	-.28	-.31	-.49	.86***
Caretaking	-.23	-.17	-.27	-.35	----	-.23	.24	-.17	.55**	-.04	.27	.26
Nervous Behavior	.32	-.41	-.16	.02	-.17	----	-.21	-.26	.06	.26	.09	.20
Problem Description	-.24	-.43*	.02	-.13	.17	-.14	----	-.23	.45	.01	.34	.11
Play	-.08	.44	.11	-.14	.08	-.30	-.17	----	-.17	.57*	-.37	-.32
Question	.13	-.50	-.44	-.43	.33	.18	.45	-.11	----	.03	.43	.28
Smile	.13	-.30	-.34	-.08	-.10	.26	-.07	.22	.15	----	.00	.12
Talk	.21	-.31	-.18	-.44*	.17	.24	.19	.04	.37	.02	----	.44
Attend Professional/ Child	-.14	-.31	-.02	-.53**	.10	.24	-.13	-.20	.23	.11	.22	----

Note: Pearson correlation coefficient above the diagonal; Kendall's tau correlation below the diagonal.

*p<.05 **p<.01 ***p<.001

APPENDIX F

Pearson Correlation Coefficient and Kendall's tau Correlations

Between Nine Predominant Behaviors

During the Final Conference

Pearson Correlation Coefficient and Kendall's tau Correlations

Between Nine Predominant Behaviors

During the Final Conference

	Attend	Professional	Child	Mother	Non-Tracking	Caretaking	Nervous Behavior	Problem Description	Play	Question	Smile	Talk
Attend												
Professional	----	----	.65***	.01	-.05	-.34	-.03	-.44	.06	-.49*	-.08	-.41
Child	-.50	----	----	-.06	-.18	-.10	-.22	.05	-.32	.19	-.06	-.07
Mother	.13	.05	----	----	-.27	-.25	-.25	-.01	-.17	-.42	.08	.13
Non-Tracking	.03	-.11	-.08	----	----	-.07	.88***	-.33	-.01	-.18	-.02	.13
Caretaking	-.07	.05	-.02	.18	----	----	-.26	.17	.41	.29	.19	.50*
Nervous Behavior	.03	-.15	-.19	.10	-.20	----	----	-.07	-.28	.05	.06	-.17
Problem Description	.33	.02	-.21	-.28	-.12	-.06	----	----	.15	.45	-.35	.28
Play	.04	-.18	.08	.22	-.02	-.33	.15	----	----	-.15	-.46	-.07
Question	-.52	.07	-.51*	-.05	.16	.04	.44*	-.17	----	----	.39	.56*
Smile	.06	-.18	.29	-.16	.18	.40*	-.30	-.34	-.09	----	----	.69**
Talk	-.30	-.06	.07	-.03	.31	.00	.29	.02	.41*	.39	----	----

Note: Pearson correlation coefficient above the diagonal; Kendall's tau correlation below the diagonal.

*p<.05 **p<.01 ***p<.001

AN ABSTRACT OF THE THESIS OF

Martha J. Haylor

For the MASTER OF NURSING

Date of Receiving this Degree: June 8, 1984

A STUDY OF FATHER BEHAVIORS MANIFEST AT THREE SPECIFIC PERIODS OF TIME DURING CLINIC VISITS TO A CHILD DEVELOPMENT CENTER

Approved: _____
Wilma E. Peterson, Ph.D., Thesis Advisor

Fathers of developmentally disabled children have indicated a desire to be a more active participant in the evaluation and treatment of their children. Many researchers and authors have urged health care professionals not to ignore the needs of these fathers, and have identified the health care visit as an excellent opportunity to address the needs of the child and those of the other family members. However, little is known about what fathers do during such visits or to what extent they are included or involve themselves in the related activities.

The two purposes of this descriptive and correlational study were: to develop an observational tool to systematically record father behaviors during three specific periods during a visit to a multi-disciplinary child health care facility; and a testing of the tool to examine questions regarding predominant behaviors exhibited, correlations between behaviors, and variation and consistency of behaviors during the social work interview, physical examination, and final conference or the visit.

The instrument developed, the Father Behavioral Observation Tool, consists of 26 defined behavioral categories and codes. The accompanying coding sheet was designed to make observation every five seconds over a ten minute period. Interrater reliability scores ranged from .89 to .96 for the three individual sessions observed. A questionnaire was developed to obtain demographic and personal support data from the sample.

The study subjects for the field observation phase of the study consisted of twelve fathers of children with varying levels of developmental deviation. The convenience sample was recruited from families attending one of three selected clinics at the Child Development and Rehabilitation Center of Oregon. Each father was observed for ten minutes during each of the sessions and completed a questionnaire. All of the fathers who were asked, agreed to participate in both phases of the study.

Nine behaviors emerged as the most prevelant throughout the three sessions although they demonstrated varying mean levels of frequency. Significant Kendall's tau correlations ($p \leq .05$) of father behaviors were found in each of the three sessions observed. Analysis of the finding also showed that five behavioral means demonstrated statistically significant differences between the varying professional activities. The exploratory data suggests that certain behaviors are more consistent among individual fathers than others. The mean number of support persons identified by the sample was three. The spouse/partner was the most frequently sought out person in times of stress.

Two conclusions can be drawn from this research. First, fathers of developmentally disabled children are willing participants in research endeavors. Second, the Father Behavioral Observation Tool with further testing and refinement has potential as a research instrument for adding to the body of knowledge regarding fathers of children with developmental deviation.

Suggestions for further development of the Father Behavioral Observation Tool are made. Limitations and recommendations for further research are made regarding behavioral observation of the participants during health care visits.