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CAÍDA DE MOLLERA: PERCEPTIONS OF HISPANIC MIGRANT FARMWORKERS RELATED TO THE RECOGNITION OF "SUNKEN FONTANEL" IN INFANTS

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By

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ABSTRACT

CAÍDA DE MOLLERA: PERCEPTIONS OF HISPANIC MIGRANT FARMWORKERS RELATED TO THE RECOGNITION OF "SUNKEN FONTANEL" IN INFANTS

By

Patricia A. Darling

A descriptive study of eight Hispanic women who are migrant farmworkers was conducted to determine the current perceptions of the Mexican folk disease, caída de mollera, i.e. sunken fontanel. The study, using Grounded Theory Methods, focused on three aspects of their perceptions, i.e. belief, cause and signs and symptoms. Data were obtained through interviews to obtain demographic data and a series of open-ended questions pertaining to the subjects folk beliefs related to caída de mollera. The results indicate these subjects believe in caída de mollera which they feel is caused by rough handling of the infant, removing the nipple while sucking and accidental falls. The significance and distinctions of diarrhea as a symptom of infant illness was explored. Additional findings stress the importance of the lay referral network in the decision making regarding infant illness. Recommendations were made for nursing practice and research for those working with the Hispanic migrant farmworker population.

Escribo con la tinta de mi sangre. It is like a cactus needle embedded in the flesh. It worries itself deeper and deeper, and I keep aggravating it by poking at it. When it begins to fester I have to do something to put an end to the aggravation and to figure out why I have it. I get down deep in the place where it's rooted in my skin and pluck away at it, playing it like a musical instrument - the fingers pressing making the pain worse before it can get better. Then out it comes. No more discomfort, no more ambivalence. Until another needle pierces the skin. That's what writing is for me, an endless cycle of making it worse, making it better, but always making meaning out of the experience whatever it may be (pp. 36-38).

Anzaldu'a, G. (1988). Tlilli, Tlapalli: The Path of the Red and Black Ink, The Graywolf Annual Five: Multicultural Literacy. Saint Paul, MN: Graywolf Press.

This project is Dedicated to Frank Lee Earley who first introduced me to the concept of Cultural Awareness.

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CHAPTER I
INTRODUCTION TO THE PROBLEM

Introduction

Hispanic migrant farmworkers comprise a majority of the seasonal farm labor force in western Michigan. This influx into the dominant white "Anglo" population causes unique problems for health care providers, who are generally part of the dominant culture. Primary health care providers (PHCP) are frequently frustrated with the episodic utilization of health care services, and the low rate of compliance to biomedical treatment by the migrant farmworker population.

The lack of compliance with biomedical treatment has been attributed, by health care providers serving the migrant farmworker population, to many factors such as access to available health care services, failure of the patient to understand treatment expectations and the lack of continuity of health care due to the mobility of the migrant population. The impact of the Hispanic belief in folk disease and folk treatment on the utilization of biomedical treatment strategies by the Hispanic migrant farmworkers maybe underestimated by the PHCP.

Need for the Study

The symptoms of illness experienced by the Hispanic migrant farmworker frequently lead to self-diagnosis of a folk disease. In treating this folk disease the Hispanic migrant farmworker may not seek biomedical health care, rather he/she

may utilize a variety of folk treatments. The use of folk treatment may cause a delay in accessing biomedical health care services. When biomedical treatment is sought by the Hispanic migrant farmworker there may be conflicts between the biomedical treatment proposed by the PHCP and the folk illness beliefs of the individual. Lack of understanding of the Hispanic folk illness beliefs by the "anglo" primary health care providers may create barriers to communication, which in turn fosters noncompliance to the biomedical treatment by the Hispanic migrant farmworker population. This barrier to communication between the PHCP and the migrant farmworker can be a further negative influence on the Hispanic migrant farmworkers' participation in the biomedical health care system.

The conflict between the cultural belief systems of folk medicine and biomedicine occurs when the process of recognition and identification of the signs and symptoms of illness result in a difference in the labeling of the illness as disease according to Kleinman (1980). This difference in the labeling of the disease process as folk or biomedical disease will be the primary factor in the decision making which determines the treatment of the illness. The difference in the process of labeling or naming a disease is influenced by the individual's perception of the cause, the seriousness of the illness and the course of the disease both with and without treatment (Kleinman, 1980). This conflict in perceptions between the folk and biomedical belief systems may

cause a breakdown in communication between the biomedical health care provider and the Hispanic family. This breakdown in communication may also prevent the Hispanic migrant farmworker from accessing the biomedical health care system if it is felt that the illness will not be understood by the biomedical health care provider. This failure in communication between the health care provider and the Hispanic patient is a barrier to negotiating mutually agreed upon treatment strategies which may endanger the sick individual due to delays in initiating and complying with biomedical treatment. The health care provider who is aware of the Hispanic folk illness beliefs and their associated folk treatments may be better able to negotiate appropriate biomedical treatment strategies with the Hispanic migrant farmworker.

Purpose of the Study

There are many folk diseases which are recognized by the Hispanic migrant farmworker population. The purpose of this study is to describe the current beliefs of women, who are Hispanic migrant farmworkers, regarding one folk disease, caída de mollera. This study will describe the recognition of the existence of caída de mollera, its cause, and the signs and symptoms of disease which are identified as being associated with caída de mollera, by women who are Hispanic migrant farmworkers.

Statement of the Problem

In order to gain a better understanding of the Hispanic migrant farmworkers perception about the folk disease caída de mollera, research is needed to explore various aspects of the illness experience. While the literature contains numerous descriptions of caída de mollera, no literature was found which described the belief system of this folk disease in this particular population of Hispanic migrant farmworkers. This study was an attempt to identify the current beliefs of women in the Hispanic migrant farmworker population in western Michigan regarding the folk disease, caída de mollera. The focus of this research included the following questions:

1. Do women who are Hispanic migrant farmworkers believe in the existence of caída de mollera as a folk disease affecting infants?
2. What do women who are Hispanic migrant farmworkers perceive as the cause of caída de mollera?
3. What are the signs and symptoms of caída de mollera as identified by the women who are Hispanic migrant farmworkers?

Conceptual Definitions

In order to better understand the research issue the following concepts or terms used within the context of this research study must be clarified:

Anterior fontanel. In an infant, this is an area of unossified membranous tissue measuring 2.5 cm. along the

coronal suture and 4.0 - 5.0 cm. along the sagittal suture and is described as feeling flat, firm, and well-demarcated against the bony edges of the skull. The anterior fontanel should be closed by twenty months of age according to Whaley and Wong (1987, pp. 308-309).

Caída de mollera. This folk disease, translated as sunken fontanel, is described by several authors as one which a dropping of the mollera (fontanel) of the infant's skull results in the blocking of the oral passages due to associated displacement of the upper palate in the mouth. The signs and symptoms which are associated with caída de mollera include depressed anterior fontanel, decreased ability to nurse or suck, excessive crying or restlessness, fever, sunken "heavy" eyes, vomiting, and diarrhea (Abril, 1975; Ehling, 1981; Johnson, 1979; Kay, 1977; Martinez, 1966; Rubel, 1960; Torres, 1983). This folk disease closely parallels a biomedical condition described as fluid balance disturbance.

Fluid Balance Disturbance. As described by Metheny and Snively (1983), this is an alteration in the normal functioning of the body due to any one of several disease processes which cause diarrhea, vomiting, and which result in dehydration. The signs and symptoms which are suggestive of this diagnosis in infants include poor skin turgor, dry mucous membranes of the mouth, changes in respiratory rate, depth, and pattern, absence or decrease in tearing and salivation, increased thirst, high pitched cry, alteration in body

temperature, decreased urinary output, sunken eyes, gray mottled skin, and depressed anterior fontanel.

Culture. For the purpose of this study the definition proposed by King (1981) will be used. King (1981) describes culture as a dynamic structure which is part of us all,

> . . . a pattern of living, a way of behaving, thinking, believing, valuing and feeling that is cumulative from one generation to another and that changes in the process of cross cultural contact (p. 115).

The biomedical health care system has been viewed by Brink (1976) and Leininger (1978) as a unique culture complete with its own system of beliefs, values, behaviors and language. The concept of culture provides the individual with a way of interpreting the signs and symptoms of illness. In addition, culture allows the individual to label the illness either as folk or biomedical disease to the individual and to society.

Hispanic. Individuals whose first language is Spanish are described by this term. Individuals in the migrant farmworker population describe themselves using several terms, such as Mexican or Mexican-American. Because there is no consistent use of the term among the Spanish speaking population either based on place of birth or immigration status the term Hispanic will be used for the purpose of this study to refer to the migrant farmworkers in western Michigan whose primary language is Spanish and whose cultural heritage can be traced to Mexico.

Migrant farmworkers. These are individuals who earn all or part of their income by performing seasonal farm labor in

more than one area of the United States. The migrant farmworkers in this study reside in the western portion of the lower peninsula of Michigan during the growing season. The remaining portion of the year these workers reside and work in either Florida, Texas, or Mexico.

Illness. This concept is defined by King (1981) as,

> a deviation from normal, that is an imbalance in a person's biological structure or in his psychological make-up, or a conflict in a person's social relationships (p. 5).

This term according to Wu (1973) includes the meaning or significance attached to the clustering of signs and symptoms by which the individual and the family labels the deviation or imbalance. For the purpose of this study illness will refer to the collection of signs and symptoms which are labeled by the mother as a deviation from the usual state of health of the infant.

Signs. These are defined by Wu (1973) as "observable changes in the structure and or function of the body that define illness" (p.27). For the purpose of this study the signs of illness in the infant which are of interest are those perceived by the Hispanic mother as caída de mollera.

Symptoms. These are subjective perceptions which indicate an alteration in the health status to the individual, according to Chrisman (1977). For the purpose of this study the symptoms experienced by the infant are based on the mother's interpretation of the infant's behavior which she perceives as an alteration from the infant's normal state and

is the attribution of feelings experienced by the infant, such as referring to the infant's fussiness being due to frustration at inability to suck.

Perception. This has been defined by King (1981) as,

> a process of organizing, interpreting and transforming information from sense data and memory. It is a process of human transactions with environment. It gives meaning to one's experience, represents one's image of reality, and influences one's behavior (p. 24).

Thus, for the purpose of this study it is recognized that two individuals can transform the information of the signs and symptoms of an infant illness experience and develop two separate labels of a disease process based on their individual experience, memory and method of organizing and labeling data which is meaningful for the individual.

Disease. This term is defined in Dorland (1988) as,

> any deviation from or interruption of the normal structure or functioning of any part, organ or system (or combination there of) of the body that is manifest by a characteristic set of symptoms and signs whose etiology, pathology and prognosis may be known or unknown (p. 481).

Kleinman (1980) has defined the concept of disease as it relates to illness as follows,

> Disease refers to a malfunctions of biological and/or psychological processes, while the term illness refers to the psychosocial experience and meaning of perceived disease (p. 72).

For the purpose of this study two types of disease will be defined.

Biomedical disease. These are diseases which are recognized by the biomedical health care system. These

diseases are recognized as being caused by an alteration in the physiological or psychological functioning of the individual, as a result of pathology which may be known or unknown.

Folk Disease. This term is generally described in the literature as folk illness and is recognized as,

> a syndrome from which members of a particular culture claim to suffer and for which their culture provides etiology, diagnoses, preventive measures and regimens of healing (Rubel 1977, p. 120).

These folk diseases generally may not be recognized by the biomedical health care system. Caída de mollera is one of many folk diseases recognized by the Hispanic culture.

Curandera or Curandero. This is an individual, either male or female, in the Hispanic culture who is viewed as a professional healer of folk diseases.

Overview of the Chapters

The identification and discussion of King's (1981) process of human interaction, as it applies to study, is utilized as a conceptual framework for the basis of the research study. This study uses the portion of King's (1981) process of human interaction, i.e. the perception of the patient, as the basis for this study. The discussion of King's conceptual framework as it applies to this study appears in Chapter II. The review of the literature related to the folk illness beliefs of the Hispanic culture is used as the basis for exploring the perceptions of this subgroup of

the Hispanic population i.e. the Hispanic migrant farmworker. The implications of the literature reviewed and its impact on this study will also be discussed and summarized in Chapter III. Chapter IV provides a description and discussion of the methods and procedures utilized during this research study. The perceptions of the population of Hispanic migrant farmworker women relating to caída de mollera were identified using qualitative research methods as outline by Grounded Theory. In Chapter V the results are presented. The demographics of this sample of the population of Hispanic migrant farmworkers in western Michigan is described. Direct quotations from the interview texts are utilized to substantiate interpretations made from the data. Chapter VI provides an overview of the study's findings and their implications for nursing practice and further research within this Hispanic migrant farmworker population.

CHAPTER II
CONCEPTUAL FRAMEWORK

Overview

This chapter outlines the conceptual framework of the process of Human Interaction as described by King (1981). The relationship of the King's model to this research study is described.

King's Theory

King's theory of Goal Attainment describes the nature of the existence of the nurse-patient relationship. For the purpose of this study, references to "the patient" will refer to the Hispanic mother who is acting on behalf of the sick infant. In order for the nurse to serve the needs of the patient there must be a communication which leads to the achievement of health care goals. King has described the theory of Goal Attainment as,

> . . . a standard for nurse-patient interactions, namely that nurses purposefully interact with clients mutually to establish goals and to explore and agree on means to achieve goals. Mutual goal setting is based on the nurse's assessment of client's concerns, problems, and disturbances in health, their perceptions of problems, and their sharing information to move toward goal attainment (pp. 142-143).

One of the major features of the theory of Goal Attainment is the Process of Human Interaction, depicted in Figure 1. This concept describes the process of communication between the nurse and the patient which is the basis mutual goal setting to achieve the health care needs of the patient.

Interaction is defined by King (1981) as,

> . . . a process of perception and communication between person and environment and between person and person, represented by verbal and nonverbal behaviors that are goal-directed. In person-to-person interactions, each individual brings different knowledge, needs, goals, past experiences, and perceptions, which influence the interaction (p. 145).

In order to develop mutual goals the nurse and the patient must interact in an ongoing process of action, reaction, interaction, and transaction. This process of interaction affects the participants', i.e. the nurse and the patient, communication through a feedback loop which is influenced by each individual's perceptions of the communication involved, their previous experiences and their social and physical environment. The most important aspect of the process of human interaction is the recognition of the importance of individual's perceptions as they impact on the process of communication. Perception as defined by King (1981) as each persons representation of reality. She states,

> One's perceptions are related to past experiences, concept of self, socioeconomic groups, biological inheritance, and education background. . . . perception is each person's subjective world of experience (p. 146).

The perceptions of the individual influence the judgement of the individual. Judgement is the value or moral interpretation of the event or communication based on the meaning of the event to the individual. The judgement of the individual is directly related to the his/her perception of an

event or interaction and forms the rationale for actions taken by the individual.

This study dealt with the process by which mothers who were Hispanic migrant farmworkers labeled perceptions of infant illness as caída de mollera. The aspects of King's model which were utilized as the basis of this research are depicted in bold type in Figure 1. The process of labeling an illness experience is based on the individual's judgement which is influenced by their perceptions of the event.

Influences on Perception

In order to determine the process of labeling an illness episode, the factors which influence the individual's perceptions must be explored. These factors will influence the nurse as well as the patient and are indicated in Figure 2. However, only the factors influencing the mother's perceptions, depicted in bold type in Figure 2, are explored within the scope of this study. The factors which were felt to influence the mother's perception include the signs and symptoms of illness, the mother's perception of the possible cause of the signs and symptoms, the susceptibility of the infant to the illness, the seriousness of the disease, the mother's previous experience with childhood illnesses.

The signs and symptoms of illness are organized and classified by the individual based on their knowledge of the causes of disease. The signs and symptoms may be viewed as being caused by either folk or biomedical disease. The

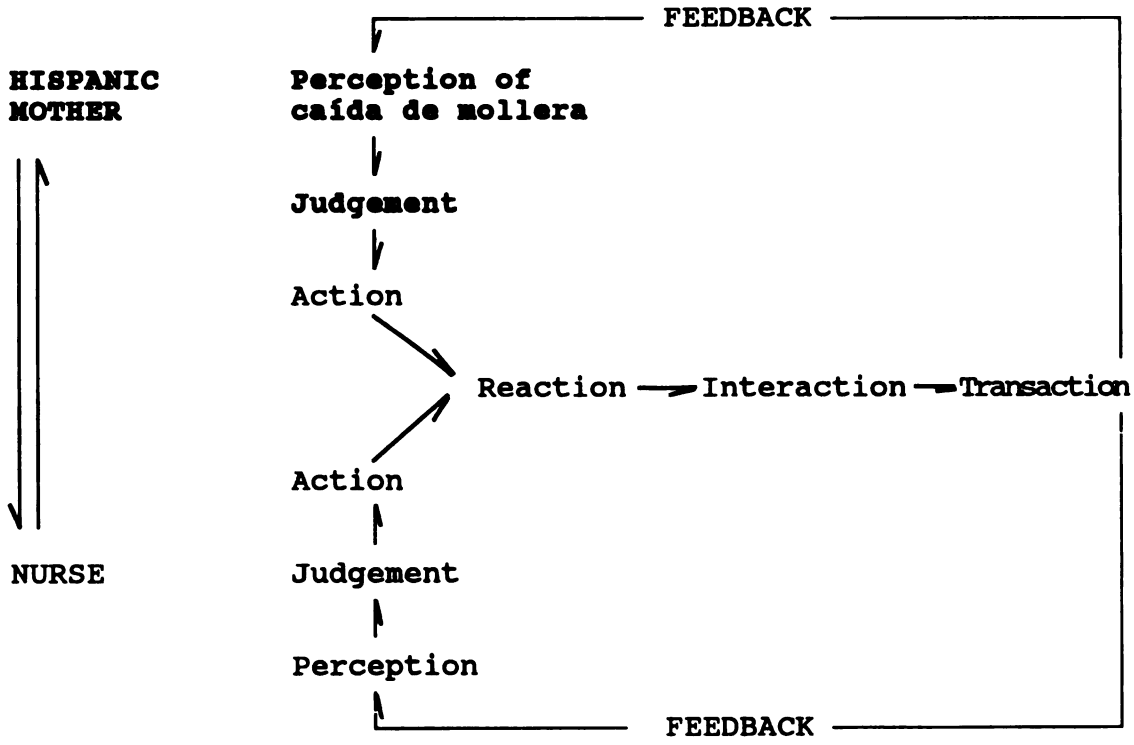

Figure 1

Process of Human Interactions as applies to the study King (1981).

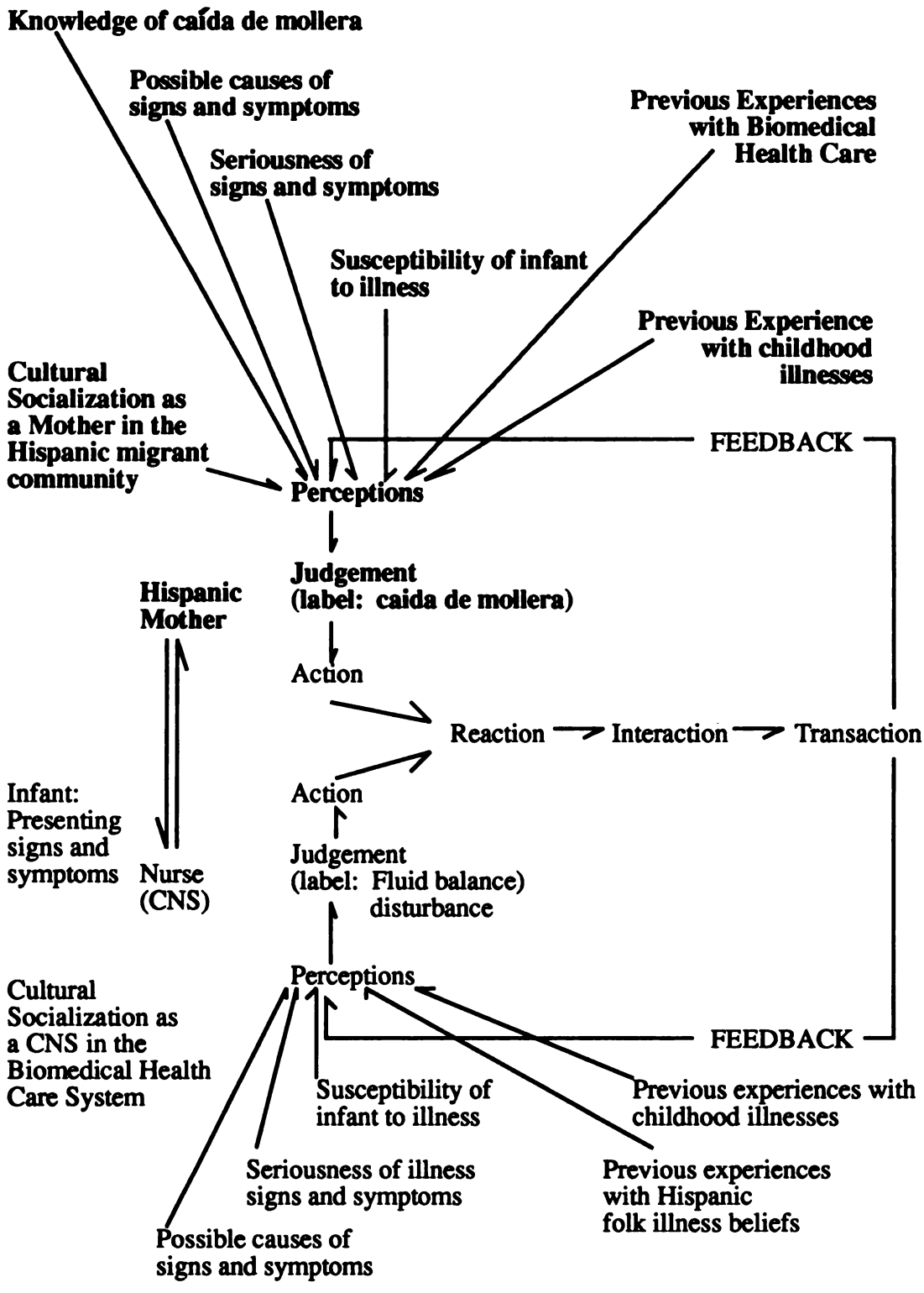

Figure 2

Human interaction: Factors influencing the perceptions of signs and symptoms of caida de mollera

labeling of the signs and symptoms of illness as being the result of folk or biomedical disease is based on the individuals cultural background. Mechanic (1978) has stated,

> Reactions to illness are descriptive of the cultural and historical situation at a particular point in time (p. 259).

Cultural beliefs related to illness change over time and are influenced by the socialization to specific cultural beliefs and by the individual's exposure to the beliefs of the dominate biomedical culture. As Kleinman (1978) has stated,

> Illness behavior is a normative experience governed by cultural rules . . . there can be marked cross-cultural and historical variation in how disorders are defined and coped with. The variation maybe equally great across ethnic, class and family boundaries in our own society. And doctor's explanation and activities, as those of their patients, are culture-specific (p. 252).

Therefore, how the individual labels the signs and symptoms of illness are determined by the cultural based classification system which he/she has been taught as a part of the socialization process. Included in this process is the patient's perception of the susceptibility and seriousness of the illness. The mother's perception of the infant's susceptibility has been described by Mikhail (1981) as "the probability of progressive effect or recurrence of illness" (p. 68).

The perception of the seriousness of the illness is defined by Mechanic (1978) as "the person's estimate of the present and future probabilities of danger" (p. 268).

The mother's previous experience with the biomedical health care system will influence her future perceptions. King (1981) has recognized this potential for disagreement between the nurse and the patient in how a given illness experience may be labeled. She describes the following influences on the perception and interaction of individuals,

> Social class, role, status, and ethnic values appear to be critical variables that enter into the perception and interaction (p. 115).

Both the client and the nurse are a product of their social-cultural system. Biomedical health care may not share the same value and belief system as individuals from other cultures, within the same social system. An example of these cultural differences in labeling an illness experience is the biomedical health care providers label of fluid balance disturbance versus the Hispanic migrant farmworker's label of caída de mollera for a very similar group of signs and symptoms which make up an infant illness experience.

The Role of the Nurse

The role of nursing must be to deliver health care in spite of the cultural differences between people and how an illness experience may be labeled. Brink (1976) has described the focus of nursing as,

> Health care delivery to the consumer within his cultural context; this requires of the nurse a sensitivity to the differences between her own and the patient's cultural background (p. 32).

The nurse-patient interaction forms the basis of nursing.

King (1981) defines nursing as,

> . . . a process of human interaction between the nurse and the client whereby each perceives the other, and the situation, and through communication they set goals, explore means, and agree on means to achieve goals (p. 2).

The patient's interaction with the nurse according to Mechanic (1978) is based on the "cultural and social accessibility" of the nurse as a health care practitioner. Mechanic (1978) has further described,

> The use of a particular help practitioner also depends on his cultural and social accessibility. Accessibility refers to whether or not the practitioner is perceived as responding to the person and his illness within a framework consistent with the patient's cultural expectations, the degree of stigma or social threat implied in using his services, anticipation of humiliation resulting from treatment or from the manner in which the practitioner handles the patient, as well as other factors describing the kind of relationship that develops between the practitioner and the patient (p. 287).

Therefore, the success of nursing is based on the success of the nurse-patient interaction which is based on their ability to communicate. Communication is described by King (1981) as the "interchange of thoughts and opinions among individuals" (p. 62). Communication can be verbal through the used of language and speech or non-verbal through the use of gestures, facial expressions, actions, and postures of listening and of feeling. Communication between individuals is based on each individual's perception of the other. Inaccurate perceptions may result in the breakdown in communication between individuals. King (1981) states,

> Communication is influenced by the interrelationships of a person's goals, needs, and expectations and is a means of information exchange in one's environment. To be effective, communication must take place in an atmosphere of mutual respect and desire for understanding (p. 62).

Therefore, the patient who does not perceive that his/her beliefs are respected or understood by the nurse will probably not include a discussion of these beliefs in his/her communication with the nurse. The importance of the nurse-patient communication and interaction between individuals from diverse cultural backgrounds has also been recognized by Brink (1976). In her discussion of transcultural nursing she states,

> . . . nursing is also concerned with the symbolic interaction: The communication system used by the nurse and the patient; the values and beliefs which guide behavior; the level at which shared meaning occurs; and finally, what happens when cultural barriers are crossed. Nurse and patient interacts around the concepts of health and illness. The degree to which they agree on what is health, illness, treatment, and cure will affect their subsequent interactions. When nurse and patient do not share a common language, they are unable to discover whether they agree or not. When they share the same language, but do not agree on the meaning for certain words, their communication will suffer. It is the nurse's responsibility to discover the degree to which the nurse and the patient share the same goals and the same symbols (p. 32).

Limitations of King's Conceptual Framework

Based on Fawcett's (1984) evaluation of King's Theory as it applies to the understanding of the folk illness beliefs of the Hispanic migrant farmworker several weaknesses become

apparent. First, in her discussion of "client participation" as it applies of the elements of mutual goal setting and exploration of means to achieve goals, King fails to define the child care provider's role as she/he acts on behalf of the sick infant. Second, King's definition of illness may lack the scope and flexibility to explain the concept of folk disease and the perception of folk illness among individuals of the Hispanic culture regarding the folk disease, caída de mollera. Therefore, Wu's (1973) definition was used to expand King's definition of illness to include the meaning or significance which the individual or family attaches the cluster of signs and symptoms which has been identified and labeled as illness. Finally, King's discussion of the environment is vague in its relationship to disease and illness. The close relationship of the Hispanic migrant farmworker to the external environment is a major force in his/her daily life. Their interaction with the external environment and its various public health hazards plays a major role in the health and illness of the Hispanic migrant farmworkers.

Strengths of King's Conceptual Framework

There are many aspects of King's theory which make this model clearly applicable to the health care needs of the Hispanic migrant farmworkers. First, King, according to Fawcett (1984) recognizes that the individual has,

> The right to accept or reject care offered by nurses and other health care professionals (p. 100).

Second, the discussion of the nurse-patient interaction clearly indicates the perceptions of the patient are valued equally to the perceptions of the nurse, and that these perceptions may not be of the same reality.

The recognition and the value of the perceptions of the Hispanic migrant farmworker by King allows the development of health care goals to be based on a mutual interaction. This conceptual framework, unlike many other, allows the nurse to be open to learn from the patient. This ability to learn from the patient allows us to grow as nurses.

Summary

King's (1981) concept of human interaction will be used to explore a portion of the process of interaction between the nurse and the Hispanic migrant farmworker in western Michigan. This study explores the perception of the Hispanic related to one Hispanic folk illness, caída de mollera, the signs and symptoms of which would be recognized by nurses as a fluid balance deficit. The recognition of the perceptions of the Hispanic migrant farmworker related to the belief in caída de mollera, its causes, and its signs and symptoms allow nurses to understand the impact on the process of human interaction, which according to King is the basis of nursing.

CHAPTER III
LITERATURE REVIEW

Overview

In this the folk disease, caída de mollera, is described and compared to the signs and symptoms recognized by biomedicine as fluid balance disturbance. The strengths and limitations are discussed and the value of this study is presented.

Discussion of the Literature

The literature reviewed addresses the perceptions of the Hispanic population in general. While providing much insight into the folk disease, caída de mollera, there were several major limitations to the literature. First, the literature reviewed fit into two classifications: (1) research based articles, i.e. ethnography, or structured survey interviews (Ehling, 1981; Foster, 1953; Johnson, 1979; Kay, 1977; Martinez, 1966; Rubel, 1960); (2) articles which were a combination of a review of literature and a report of the literature and a report of the personal experience of the author (Abril, 1975; Torres, 1983).

Secondly, none of the articles reviewed reflected research that had been carried out in the Hispanic migrant farmworker community. While it can be presumed that the Hispanic migrant farmworkers share many of the same cultural beliefs of the larger Hispanic culture, the extent and nature of these beliefs are unknown.

Finally, the research literature available was based on ethnographic studies that were carried out twenty to thirty years ago, (Foster, 1953; Johnson, 1979; Kay, 1977; Martinez, 1966; Rubel, 1960). Given that culture changes over time it is impossible to determine to what extent the observations reported in the literature continue to be accurate.

It was further noted that the literature contained three articles that were written by nurses (Abril, 1975; Ehling, 1981; Kay, 1977). Two articles (Foster, 1953; Martinez, 1978) were reprints of articles by anthropologist which were published earlier and later were incorporated into texts edited by nurses.

The following portion of this chapter defines fluid balance disturbance and caída de mollera as described by the review of the literature. A comparison of the signs and symptoms of these two causes of illness points out many similarities in the conditions. The description of caída de mollera includes aspects of the folk disease which were explored by this study.

Fluid Balance Disturbance

The signs of fluid balance disturbance recognized by biomedicine include poor skin turgor, dry mucous membranes of the mouth, changes in the rate, depth, and pattern of respirations, absence or decrease in tearing and salvation, decreased thirst, high pitched cry, alterations in body temperature, decreased urinary output, sunken eyes, mottled skin, and a depressed anterior fontanel (MacKenzie, Barnes &

Shann, 1989; Metheny & Snively, 1983). There are many causes of fluid balance disturbance recognized by biomedicine. Fluid balance disturbance is viewed as a sign of underlying disease pathology which cause diarrhea, vomiting, excessive perspiration, or fluid and electrolyte imbalance (Chow, Durand, Feldman & Mills, 1984; Gottlieb, 1983; Hamilton, 1985; MacKenzie, Barnes & Shann, 1989; Metheny & Snively, 1983).

caída de mollera

Caída de mollera is recognized as a folk disease affecting infants in the Hispanic culture. The translation of caída de mollera into English is "sunken fontanel", referring to a depression of the anterior fontanel of the infant's skull. According to Rubel (1960) caída de mollera is viewed as an illness caused by misplaced body parts or organs. Rubel (1960) describes the Hispanic perception of the anatomy and physiology involved,

> Infants are conceived of . . . as possessed of a fragile skull formation. The skull includes a section which in this immature stage easily slips or is dislodged from its normal position. The mollera (fontanel) is that part of the skull pictured as sitting at the very top of the head. It is normally sustained in proper position by the counter-poised pressure of the upper palate {in the mouth} (p. 797).

Cause

Caída de mollera is the folk disease, occurring under six months of age, which results when the mollera (fontanel) is displaced downward from its normal position. According to folk tradition, this displacement causes the upper palate in the mouth to drop blocking the oral passages. Several

recognized causes for this displacement were identified in the literature. It may be caused by a fall (either witnessed or presumed) by the infant (Rubel, 1960; Martinez, 1966; Abril, 1975; Ehling, 1981). Rough handling or bouncing the baby in play may accidentally cause the fontanel to drop (Abril, 1975; Ehling, 1981; Torres, 1983). Removing the nipple (breast or bottle) too quickly from the baby's mouth while he is sucking may also cause caída de mollera (Abril, 1975; Ehling, 1981; Johnson, 1979; Kay, 1977; Martinez, 1966; Torres, 1983). Torres (1983) reports "the baby can cause it himself by sucking too greedily" (p.15).

Signs and Symptoms

There are a series of signs and symptoms identified with caída de mollera: (a) a depressed anterior fontanel; (b) inability to grasp the nipple and nurse effectively; (c) unusual or excessive crying restlessness, or insomnia; (d) fever; (e) sunken or "heavy" eyes; (f) vomiting; and (g) diarrhea or loose stools (Abril, 1975; Ehling, 1981; Johnson, 1979; Kay, 1977; Martinez, 1966; Rubel, 1960; Torres, 1983). Attempts to suck are accompanied by slurping sounds and smacking of the lips, according to Martinez (1966).

It is interesting to note that caída de mollera is felt to cause diarrhea. Johnson (1979) reported that one of her informants stated, "caída is the real cause of diarrhea in babies" (p. 71). Kay (1977) reports ". . . Many informants see deshidratacion (dehydration) or carencia de aqua (lack of water) as synonymous with caída de mollera" (p. 135). Perhaps

the Hispanic description of the relationship between caída de mollera and dehydration that Kay (1977) reported may be used to assess the acculturation of the Hispanic to the biomedical perspective of disease. An example of this acculturation may also be seen in the description of caída de mollera reported by Torres (1983),

> The symptoms are irritability, diarrhea and vomiting. The baby thus becomes dehydrated and exhibits the most prominent symptom, the one that gives the condition its name, a depressed fontanelle {soft spot} (p. 15).

Incidence of caída de mollera

It was not possible to tell from the articles reviewed what the incidence of caída de mollera is in the Hispanic population, although several references were made to the occurrence of caída de mollera. Ehling (1981) reports that caída de mollera is the most common folk disease affecting infants. Baca (1978) and Abril (1975) recognized that caída de mollera is the most common and prevalent condition in the category of organ displacement within the Hispanic folk disease classification system.

Responsibility for Infant Health Care

It has been reported that women in the Hispanic cultural are given the major responsibility for child care and decisions regarding illness. If an infant is ill and the mother does not know what to do she would probably seek

advice from another woman generally a close kin. No other studies addressed the process by which the mother seeks advice regarding the health care of her infant.

Strengths and Limitations of the Literature

The literature, in spite of being twenty to thirty years old, gives a thorough description of the presenting signs and symptoms and the perceived causes of caída de mollera. However, the literature fails to give an accurate description of the incidence of caída de mollera within a population. Given that acculturation occurs over time, there is no way of knowing if the description of caída de mollera has changed within the Hispanic population. Articles found in the nursing literature were reprints of articles based on anthropological research or descriptions of the personal experiences of the author. There were no research based articles in the nursing literature which dealt with Hispanic folk illness beliefs. Finally, there were no articles which dealt with the perceptions of Hispanic migrant farmworkers related to caída de mollera.

Value of this Study

This study is valuable in that it is a research focused description of the current folk illness beliefs on caída de mollera of an Hispanic migrant farmworker population. This research adds to the existing literature in that no research articles dealing with caída de mollera were found in the

literature. This study also gives nursing insight into one of the many folk illness beliefs of the Hispanic population. In addition, this study can be used as a basis of comparison for the folk illness beliefs in other Hispanic populations.

Summary

Caída de mollera was described as a folk disease affecting infants and small children which is a part of the health belief system of the Hispanic culture. The folk disease, caída de mollera, as described in the literature, is a condition which closely parallels the biomedical condition described as fluid balance disturbance. The seriousness of fluid balance disturbance to infants is documented in the literature. Therefore, the folk disease, caída de mollera, can be considered a threat to infant health.

CHAPTER IV
METHODS

Introduction

In this the methods used to determine the Hispanic migrant farmworkers perception of caída de mollera, are described. The outlines the subject identification, subject selection, pilot study, interview techniques, and data analysis procedure.

Introduction to Grounded Theory Methods

Grounded Theory was developed by Glaser and Strauss in the mid 1960's. Since that time Stern (1986) and others have attempted to clarify the process by which Grounded Theory is utilized in qualitative research. According to Stern (1986):

> The term grounded theory refers to data grounded in facts and generating theory from the data. The grounded theorist looks for the process involved rather than static conditions. . . . the basic assumption of grounded theory is that not everything has been discovered yet. Hypotheses are linked together so that the investigator is able to present an integrated theory to explain the problem under study (p. 150).

Glaser (1978) reports that grounded theory allows researchers:

> . . . to discover what is going on rather than assuming what should be going on, as required in a preconceived type research (p. 159).

The use of Grounded Theory allowed the researcher to discover the perceptions of the Hispanic migrant farmworker population of western Michigan rather than assuming that their beliefs would be the same as other Hispanic populations described in

previous research. Given that acculturation occurs as individuals from differing cultural backgrounds interact with each other, it is important to access the current perceptions of a population rather than relying on information obtained from literature which was written twenty to thirty years ago.

Grounded Theory was readily applicable to the naturalistic inquiry of cross-cultural research. According to Stern (1986):

> By its very nature, grounded theory is applicable to the study of cultures. The qualitative, holistic approach of grounded theory serves as a valuable heuristic in understanding and explaining human experience as it is lived, especially those subjective phenomena that can only be interpreted through the eyes of the beholder or those in which the whole is more than the sum of its parts (p. 3).

In grounded theory, data are collected utilizing interviews and observation of subjects. This is done using the technique of theoretical sampling. The initial subjects are chosen from the target population. As the process of data collection develops, additional subjects are identified and interviewed in an attempt to discover comparison groups within the population to explain and clarify the emerging theory. Interviews initially may be semi-structured using an interview guide, consisting of a series of open-ended questions.

The subjects are interviewed more than once. Between each interview the collected data are analyzed and further questions developed to clarify the emerging theory. The interviews are continued until no new categories are generated and the existing categories are saturated. The data, which

are coded throughout the process, are "clustered into naturally related categories, and compared . . ." categories are "linked and reduced until variables that explain the important processes in the setting" emerge (Stern, 1986, p. 138).

After the data collection is completed, the major variables are then compared to existing concepts in the literature. According to Stern (1986):

> Through integration of ideas, the existing data is used as supporting data for the emerging theory and its woven into its matrix of data, category and conceptualization (p. 13).

The purpose of this research study was to describe the current pattern of beliefs of the Hispanic migrant farmworkers' of western Michigan related to caída de mollera rather than to develop a theory to explain how individuals perceive the relationship between folk and biomedical disease. The process by which the data was collected in this study is described in following sections.

Reliability and Validity

The credibility of this research depended on the researcher's ability to recognize and control the limitations of qualitative research as it related to the study of caída de mollera in this migrant farmworker population. There are several benefits and limitations to conducting cross cultural

nursing research using qualitative research methods. The following are definitions of reliability and validity as they apply to this research study.

Validity

According to LeCompte and Goetz (1988) validity "demonstrates that the propositions generated, refined, or tested match the causal conditions which obtain in human life" (p. 43). There are two types of validity which are described within the context of this research study. They are internal and external validity.

Internal Validity is the accuracy of the research findings. According to LeCompte and Goetz (1982) internal validity asks the question "Do scientific researchers actually measure what they think they are observing and measuring?" (p. 43). The nature of Grounded Theory includes the following: theoretical sampling, constant comparative data collection and analysis, the translator acting as participant researcher, and the use of demographic data to identify the subject sample. The use of Grounded Theory allowed the data collected from each subject to be clarified by the other subjects. This clarification provided important input needed in the developing analysis of the data by the researcher. The use of the translator, as a participant researcher, helped to verify the meaning behind the translation of the data and to verify the development of possible themes to be explored in greater detail with the subjects. The demographic data collected on the subjects allowed the researcher to identify the

characteristics of the subjects within the population being studied. The constant comparison of the data allows the researcher to analyze and clarify all discrepancies in the data. The translator, acting as a participant researcher, provided the researcher an individual from the Hispanic migrant farmworker population as a source of reference. The translator guided the formulation and wording of questions, and the verification of the observations by the researcher, which added to the depth and richness of the data collected.

All of these factors acted as effective means of dealing with threats to internal validity. LeCompte and Goetz (1982) have reported,

> . . . although no research design can identify the precise cause of observer datum, ethnographic data (Grounded Theory) may be quite effective in delineating the most probable causes and in specifying an array of those most plausible (p.50).

External Validity is the extent to which the findings of this study can be applied to other populations of Hispanic migrant farmworkers. This type of validity is described by LeCompte and Goetz (1982) as the extent to which the abstract constructs and postulates generated, refined or tested by scientific researchers is applicable across groups. The very nature of qualitative research makes it impossible for the researcher to design and conduct a research study which can be applied across groups. Lincoln and Guba (1990) have stated that the researcher,

> . . . cannot specify the external validity of an inquiry; he or she can provide only the thick description necessary to enable someone interested in making a transfer to reach a conclusion about whether transfer can be contemplated as a possibility (p. 316).

Therefore the issue of external validity of this research study will be left for others working with populations of migrant farmworkers.

Reliability

According to LeCompte and Goetz (1982) reliability is seen as the "replicability of scientific findings" (p.32), that is, can the research results be replicated within the same population by repeating the same research study? Reliability addresses this issue of whether or not this researcher or another researcher would arrive at the same results if identical research was conducted within the same Hispanic migrant farmworker population.

The following discussion related to the reliability in qualitative research includes factors influencing internal and external reliability.

Internal Reliability refers to the extent to which other researchers, given a set of previously generated data, would reach the same conclusions as the original researcher. Grounded Theory's use of the researcher as an instrument would be an influence to the internal reliability of the study. The life experience and educational background of the researcher would be factors influencing the perception and interpretation of the data.

External Reliability is defined by LeCompte and Goetz (1982) as,

> . . . the issue of whether independent researchers would discover the same phenomena or generate the same constructs in the same or similar setting.

Because this research has not been conducted before it is impossible to determine the reliability of this study. The reliability will be determined once the study has been replicated, and will not be addressed in this paper.

Many factors influence the external reliability of the research including: setting, subjects, instrument, translator, pilot study, data collection and analysis, the changing nature of human behavior, and the relationship of the researcher to the study subjects. Any attempt to replicate this study must control all of these factors as variables. The following is a description of the variables as they apply to this research study.

The Setting

The study was conducted in the service area of the Sparta Migrant Clinic, Sparta, Michigan. Sparta is located in western Michigan approximately fifteen miles northwest of Grand Rapids. The area surrounding Sparta is a rural farming area whose major products are cultivated and harvested by Hispanic migrant farmworkers. During the growing season there is large influx of migrant farmworkers into the area. According to Steve Smith, Director of the Sparta Health Center, (personal communication May 1, 1990) approximately

6,500 migrant farmworkers reside in the service area during the growing season. The service area of Sparta Health Center encompasses a twenty-five mile radius surrounding Sparta, Michigan. The migrant farmworkers that come to western Michigan and are served by the Sparta Health Center, generally come from south Texas and Florida. Most of these migrant farmworkers are Hispanic and travel in family units. Once in Michigan these farmworkers generally reside in housing provided by the grower, called migrant camps. These camps are usually located near the fields or orchards in which the migrant farmworkers work.

Migrant camps are clusters of one and two room cabins, cinder block construction "motel units", or older mobile homes with outdoor plumbing, community showers and a laundry facility. Most migrant camps are a mixture of the old and new housing units which are constantly being updated and repaired, by the grower. The size of the camps is measured by the number of workers, which may vary from less than four to over two hundred. The size does not include the unemployed adults and children who reside in the camp. Many of the migrant farmworkers in Michigan follow the same migration route returning to the same grower's camp annually.

Subjects

Eight subjects were included in the study. Grounded Theory suggests a theoretical sampling of subjects within an identified population. Glaser (1978) describes theoretical

sampling as,

> . . . the process of data collection for generating theory whereby the analyst jointly collects, codes and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges. This process of data collection is controlled by the emerging theory, . . . (p. 36).

The initial criteria for subject selection was identified during the proposal phase of the study. However, the selection of additional subjects during the actual research was determined by the developing trends which evolved during the data collection and analysis. The subjects interviewed for this study were selected from Hispanic farmworkers families who resided in the service area of the Sparta Migrant Clinic, were known to the researcher, and were willing to participate in the study. As a pilot study two subjects were identified and interviewed with a translator. The data from these pilot interview was transcribed and analyzed. The consent forms and the interview procedure were reviewed. No changes in the consent form or the interview process were needed before starting the research study.

Once the pilot study was completed two additional subjects were identified and interviewed. As the interviews progressed, additional criteria for inclusion in the study became evident from the data analysis. Subsequent to the data analysis the subjects were identified in pairs, i.e. a young woman and either her mother or her mother-in-law. Three subject pairs were identified and interviewed as a part of the study. One subject pair consisted of a woman and her mother.

The other two pairs consisted of a woman and her mother-in-law. One of these young women was pregnant with her first child. This subject did not fit any of the existing categories but her inclusion into the study allowed insight as to the perceptions of a young woman who was raised in the United States and who has not yet been socialized as a mother.

As the data analysis progressed the data from the pilot study was included in the final analysis. It was felt by this researcher that the data collected during the pilot study did not differ from the data collected during the rest of the research project either in procedure or quality of data obtained. The two women interviewed during the pilot study did not have a mother or mother-in-law residing in Michigan during the period of the study, therefore data could not be obtained from these mothers or mothers-in-law for inclusion in the study.

The Protection of Human Subjects

The proposed research was presented and approved by the University Committee on Research Involving Human Subjects. A copy of the letter of approval appears in Appendix A.

After the subject was identified from the Hispanic migrant farmworker population based on the criteria for selection, she was approached by the researcher and the translator and asked to participate in the study. A discussion of the role of the translator appears later in the chapter. After the subject verbally agreed to participate a

written consent was read, by the translator in Spanish, or by the researcher in English if the interviews were to be conducted in English. The written consent outlined the interview procedure, and described the purpose of the research study and assured confidentiality of information gathered. A copy of the consent forms used in both Spanish and English is included in Appendix B. The researcher answered any questions the subject had concerning the research, through the translator as necessary. The subjects were assured that any comments they made would not be identified with them directly and would be kept strictly confidential. The subjects were then informed that they could stop the interview process at any time. The reading of the consent form and the subject's response were recorded on audiotape. These audiotapes are being kept on file by the researcher. In addition, the consent form was signed by the subject, the researcher, and the translator as needed. The subjects were asked if they wished to have the research study explained to their husband or family. As described by Ehling (1981), it is not uncommon in the Hispanic migrant community for the male head of the household to make decisions as to the activities of the women in the home. Once permission is obtained it is unlikely that the head of the household would wish to be present during the interviews as the topic center around child care. No subject requested an explanation of the research study be given to their husband or other family members, by the researcher.

Instrument

The focus of qualitative research relies on the use of the researcher as the instrument. Field and Morse (1985) recognized that,

> in qualitative research the amount and quality of the data and the depth of the analysis are dependent upon the ability of the researcher (p. 115).

This study utilized several means of enhancing the ability of the researcher to collect and analyze data within the scope of Grounded Theory Methods.

The interview guide was developed by the researcher and was based on information gained from the literature on caída de mollera. The interview guide consisted of three parts.

The first part allowed the collection of demographic data which was used to describe the subjects who participate in the study. The demographic data consisted of: (a) subject's initials; (b) residence in Michigan i.e. name of migrant camp; (c) date of birth; (d) place of birth i.e. country and state, (e) winter residence i.e. country and state; (f) education i.e. highest grade completed and location of education; (g) number, ages, sex of children; and (h) death of children including when the death occurred and the cause of death.

The second part consisted of open-ended questions which acted as an interview guide to elicit the perceptions and feelings of the subjects related to the folk disease caída de mollera. The last portion of the interview guide consisted of questions which were needed to clarify data collected during

the first interview. A copy of the interview guide is found in Appendix C. The initial questionnaire, consisting of the demographic data and open ended questions related to the perceptions of caída de mollera was critiqued by the translator and the researcher following the pilot study. No changes in content were needed before the remainder of the interviews were initiated. The final portion of the interview guide consists of questions which evolved during data collection form the analysis of the developing data. These questions, used during the second interview, attempted to clarify data collected during the first interview with the subjects.

The conduction of the study by the researcher played a critical role in the reliability of the study results. In Grounded Theory the researcher acts as the instrument during data collection. The reliability of the researcher must be described in terms of the status and social relationship of the researcher to the migrant farmworker population. The accuracy and depth of the data collected was determined by the Hispanic migrant farmworkers' perception of the researcher's status as well as the social relationship of the researcher to the Hispanic migrant farmworker population.

The researcher in this study had been employed for three summers (1988-90) as the Local Program Coordinator for the Camp Health Aide Program in Sparta, Michigan. The Local Program Coordinator (LPC) of the Camp Health Aide Program recruits bilingual migrant women in the area migrant camps to

act as Camp Health Aides (CHAs) within their migrant camp. The LPC provides educational information/training to the CHAs concerning basic first aid, camp safety, nutrition, prenatal needs, child care needs, chronic disease recognition and need for treatment, and how to access available area resources. The LPC provides weekly follow-up in the migrant camps and helps the CHA to problem solve issues which are occurring in their camps. The role of the LPC is to encourage the empowerment of the area migrant farmworkers in the areas of health. In addition, the LPC by virtue of frequent visits to the migrant camps can provide insight to the local migrant clinic concerning the health care needs of the local migrant population.

The description of the researcher's role as a Local Program Coordinator helps to clarify the influence of this role on the researcher's status within the migrant farmworker community and her social relationship to the subjects who were interviewed. The fact that the researcher was visible within the migrant farmworker community for three summers as a LPC increased the researcher's status, trust, and credibility within the migrant farmworker population around Sparta, Michigan. The role of the LPC as an advocate for the health care of Hispanic migrant farmworkers and the status associated with the role of a nurse were positive influences on the status of the researcher. In addition, the subjects

interviewed were either individuals or relatives of individuals with whom the researcher had developed a positive relationship over the three summers.

The Translator

There were two female, volunteer, translators utilized during data collection. The first translator was a Camp Health Aide, who assisted with the interviews of the subjects during the pilot study. Agreements with each translator were signed outlining their responsibilities relative to translating and maintaining confidentiality. A copy of the Translator Agreement appears in Appendix B. Due to conflicts with employment, the first translator was unable to continue as a translator. The second translator was one of the English speaking subjects interviewed as part of the study. The potential conflict of interest in using a subject as a translator was minimized in two ways. First, the translator's daughter-in-law spoke English and therefore could be interviewed by the researcher without the translator being present. Second, the translator was interviewed by the researcher before subsequent interviews were conducted with the remaining subjects. Due to the second translator's extensive experience working as a translator for the grower, the local migrant education program, and the local migrant clinic, the researcher trained this translator without conducting additional pilot interviews. The translator utilized for this study acted as an instrument of the

researcher and was responsible for direct translation of the researcher's questions, comments and the subject's responses without personal elaboration. The translator was present during all interviews conducted in Spanish. Interviews in English were conducted by the researcher alone. Each interview was audiotaped. The audiotape contained all verbalizations between the subject, researcher and the translator where applicable.

The use of a translator from the Hispanic migrant community helped to facilitate entry of the researcher into the migrant community. The translators actions as a "participant researcher" allowed the feedback of another individual present during the interview process which validated the accuracy of the data obtained during the interview, and to identify potential themes which could be developed by the researcher.

The Pilot Study

A pilot study was conducted by the researcher and the first translator before the data collection was attempted. The pilot served several purposes. First, the pilot study clarified the interview questions and determined the time needed to conduct the initial interviews. Second, the pilot study provided training of the researcher in learning how to work with a translator. Third, the pilot study allowed the testing and clarification of the research subject consent form.

The pilot study was conducted using two subjects, selected from the Hispanic migrant farmworker population. A consent form was signed by the Hispanic migrant women who participated in the pilot study. The procedure for obtaining consent to participate in the pilot study was the same as that described earlier in the in the section on "protection of human subjects". The remainder of the consent was the same as the consent form used for the research study.

The pilot subjects were interviewed using the interview guide. Each interview was audiotaped and timed. The English portion of the audiotaped interviews were transcribed verbatim into printed text. The transcripts were analyzed for themes and subject labels were identified. The interview process did not change as a result of the pilot study.

Data Collection and Analysis

This section of the deals with the description of the process of data collection and analysis used during the research study.

Agency Cooperation

Each grower who employed a migrant farmworker participating in the study was contacted by the researcher either in person or by the telephone. The nature of the study was explained to the grower and any questions answered. The growers were assured that the interviews would not interfere with the participants' work schedule. No problems with the growers occurred during the study.

A letter of support and cooperation was obtained from the Sparta Health Center. The Sparta Health Center administers the state wide Camp Health Aide Program. The researcher was employed by the Camp Health Aide Program to act as a Local Program Coordinator of the Camp Health Aides in the area of Sparta, Michigan, during the time of data collection. While it was not within the job description of the Local Program Coordinator to carry out research related to migrant health care it was a natural extension of the position. A copy of the letter from Sparta Health Center is included in Appendix D.

Data Collection

The data collection was obtained through interviews with the subjects which were conducted between July 15, 1990 and October 31, 1990. At the initial meeting with the subject, the consent form was signed. None of the Hispanic women approached by the researcher refused to participate in the study. The first interview was conducted in the subject's home in the migrant camp, generally lasting one hour. An effort was made to identify a time when the children in the family were in the day care or migrant school, however, frequently there were children present during the interview. Each subject was interviewed without the other subject from the family present. The presence of children did not appear to alter the responses given by the subject. If the subject did not want to respond in the presence of a family member who may have entered the room, the subject would stop talking

until the person had left the room, and then continue the interview process. The interviews were scheduled at a time that did not interfere with the work schedule of the women or of their families. The efforts by the researcher to control and identify the distractions which occurred during data collection were an attempt to control the "social situations and conditions" described by LeCompte and Goetz (1982) as factors influencing external reliability.

The demographic data were collected by asking the questions orally with the researcher completing the data collection form. The open-ended questions were asked regarding subject's perception of caída de mollera. The interview was recorded on audiotape for prompt transcription of the English portion of the tape. The researcher recorded field notes, both written and on audiotape, during and after the interview to record the subject's interaction with the researcher, distractions which occurred, non-verbal communication, and descriptions of demonstrations provided by the subject which explained or clarified the responses to the questions. In addition, the perceptions of the researcher relating to the data analysis of the interview was also recorded.

The English portion of the audiotaped interview was transcribed verbatim and analyzed before the second interview. Clarification was sought from the translator if a portion of the audiotape was inaudible or not understood by the researcher in the transcription of the data.

The second interview was conducted in the same manner as the first interview. This second interview lasted from thirty to forty-five minutes and occurred from one to three weeks following the first interview. The variability of the time between the first and second interviews was influenced by several factors; the work schedule of the migrant farmworker, the work schedule of the researcher and the translator, and the backlog of transcription and data analysis which was due to the length of the interviews and the number of subjects interviewed. The open ended questions asked during the second interview were individualized to clarify information collected during the first interview. The second interview questions were designed to expand and verify data collected and analyzed from the first interviews with all the subjects. The first interviews were all completed before the second interviews were begun. Due to a faulty audiotape one of the second interviews was repeated. Once all the data were collected and analyzed from the three subject dyads, the data collected during the pilot interviews were compared to data collected during the research study. Due to the fact that the process and methods of data collection had not changed between pilot subjects and the study subjects and due to the richness of the data collected from the pilot subject, the decision was made to incorporate the results into the overall research study. Once the decision was made to include the pilot study results into the final results of the research, a second interview was conducted with the pilot subjects. For the

purpose of consistency, the original translator was used to conduct the second interview with the two pilot subjects.

The presence of the translator from the migrant community, acting as a participant researcher in the interview sessions conducted in Spanish, allowed the feedback of another individual to evaluate accuracy of the interview process. After all of the interviews were completed a random sample of one audiotaped interview of each translator was chosen from all of the audiotape cassettes of the interviews. These two audiotaped interviews were reviewed by Melba Hinojosa. Ms. Hinojosa is a nurse, a doctoral candidate in the Anthropology Department, Michigan State University, and the child of migrant farmworkers from Texas. The accuracy of the Spanish/English translation by the translator was verified as to the intent and meaning of the translation. A letter verifying the accuracy of the translation appears in Appendix E.

The process of data collection using Grounded Theory utilized a high ratio of low inference descriptors to high inference descriptors. Low inference descriptors include verbatim accounts of the interviews and memos which were generated to describe the behaviors and activities occurring during the interview process. High inference descriptors are the subjective memos which record the responses of the researcher during the research process. These high inference descriptors include the thought processes, and "flashes of brilliance" of the researcher which outlines the process of

concept development. These subjective memos must be viewed within the context of the objective data obtained during the interview process.

Data Analysis

The analysis of the data involved several steps. First, demographic data were collected in an attempt to describe the Hispanic migrant farmworker population being studied. Second, the English translation of the interview was transcribed verbatim on to a word processing program (PFS WRITE). The English transcripts were formatted to allow the use of the computer program, THE ETHNOGRAPH.

THE ETHNOGRAPH was utilized to manage the data. According to Seidel (1984) it,

> reproduces some of the mechanical tasks of identifying, coding, and collecting segments in order to facilitate comparing them, developing themes, and propositions, revising initial segmentation and coding decision, and generating grounded theory (pp. 41, 113).

Each interview transcript was coded, and categorized to summarize the data and to guide subsequent interviews with the subjects. In addition to the coding of data, Grounded Theory also relies on the use of memos as a part of the analysis of data. Memos are a written record of the process of data collection and analysis, similar to field notes. The field note memos were not coded nor transcribed into the analyzed interview text. The field note memos were used to develop the coding headings for the transcribed interview text. Additionally, text memos were written by the researcher to

record the non-verbal and situational components of the interview process. The text memos were included in the transcribed interviews but were not coded separately from the interview text. These text memos were generated which captured the impressions of the researcher as it related to the evolving data. Memos according to Corbin (1986),

> . . . should be written to capture ideas and document recurrent themes noted in the data (p. 107).

The memos were used by the researcher to verify data previously collected and to clarify the data collection process. The memos showed the step by step process of the theory development. Later as the coding process developed, the data were redefined and recorded as the researcher clarified the process of analysis of the data.

Once the bulk of the data were collected, the comparison of the various transcripts began. During this step the similarities and differences between the interviews were recorded in memo form. These similarities and differences were verified during subsequent interviews with the subjects. General categories were then developed. Within each general category various subcategories were listed to clarify the scope of each category. The next step identified the relationship between categories. Memos that were written during this step showed the development of the relationship of the various categories and identified the scope of the factors which influence the perceptions of the Hispanic migrant farmworker related to caída de mollera. The next step in the

process dealt with a selective review of the literature to substantiate and clarify the relationship of the research findings to the existing literature.

The final step described by Glaser (1978) involves the development of a model which depicts the interactions of the various parts of the research findings into a conceptual framework. This process of data collection and analysis shown in Figure 3 is an adaptation of a flow chart by Lincoln and Guba (1990, p. 188). The flow chart describes the process of utilizing Ground Theory to clarify the perceptions of Hispanic migrant farmworker regarding caída de mollera. However, the integration of various parts of the research findings into a conceptual framework was not carried out due to time constraints which limited the continuation of data collection until there was saturation of the categories of data collection. The failure to develop a conceptual framework related to the perceptions of folk verses biomedical disease does not limit the application of these research findings to nursing practice.

Grounded Theory was very useful in obtaining insight as to the perceptions of the Hispanic migrant farmworker population around Sparta, Michigan. This research method of data collection and analysis provided the most valid and reliable way of obtaining information from the population in question, with the constraints described in this chapter.

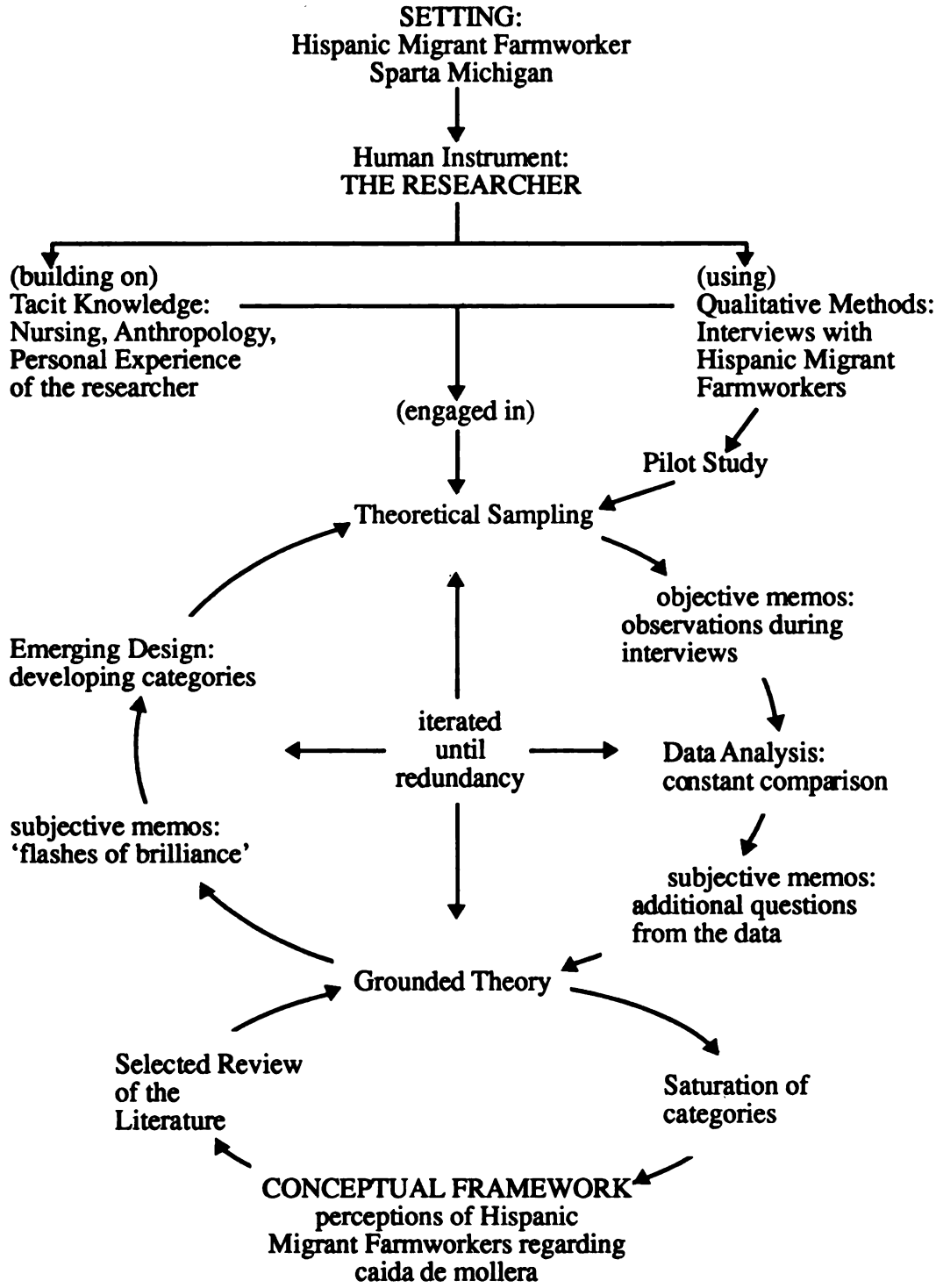

Figure 3
Perceptions of Hispanic Migrant Farmworker regarding caida de mollera: Using Grounded Theory Methods (adapted from Lincoln and Guba (1990))

Assumptions and Limitations

The following are the assumptions and limitations of this research study.

Assumptions

1. Women in the Hispanic migrant farmworker culture are the individuals who identify the signs and symptoms of illness and label the disease process.
2. The answers provided by the subjects represent an accurate reflection of their perceptions of caída de mollera.
3. The illness identification made by the Hispanic woman on behalf of the infant is influenced by her culturally determined health-illness belief system.
4. The use of Grounded Theory will obtain data which will add to the existing knowledge of caída de mollera and can be used to develop a data base which will clarify the perceptions of the Hispanic migrant farmworkers regarding caída de mollera.

Limitations

1. Language and cultural barriers related to the research study include those involving the researcher's ability to speak Spanish, and the use of a translator to collect data. In addition, the "observer effect" of the researcher's influence as an "Anglo" on the data collection and the researcher's status, as a biomedical health care provider, within the Hispanic migrant farmworker community are recognized as potential

limitations to this research study, due to the Hispanic migrant farmworkers cautious attitude toward "outsiders" to their community.

2. The bias related to personal biomedical beliefs, expectations related to previous interactions with the Hispanic migrant farmworker population, and exposure to literature related to Hispanic folk beliefs cannot help but to influence the collection, classification and analysis of the data by the researcher.
3. A limitation of this research is the inability to generalize the results to another group of migrant farmworkers within the same population or within another population of Hispanic migrant farmworkers.

Summary

Ethnographic data was collected from eight women subjects who were a part of the Hispanic farmworker population residing in western Michigan during the 1990 growing season. The data was collected and analyzed using Grounded Theory Methods. The results of the study were compared to the existing literature in order to determine the similarities and differences of this Hispanic population to other Hispanic populations studied. The data collected was utilized to describe the complexity of the process of perception of an illness experience in order to increase the awareness of the Clinical Nurse Specialist as to the perceptions of the Hispanic migrant farmworkers related to caída de mollera.

CHAPTER V
RESULTS OF THE STUDY

Overview

In this chapter the subjects who participated in the study are described demographically, using tables to clarify the data. The results of the interviews are presented and supported by examples taken from the interview text.

Demographics of the Subjects

The study involved interviewing eight subjects twice. Two of the subjects initially participated in the pilot study. These two pilot subjects were Hispanic women whose family participated in the seasonal farm labor. Each pilot subject had a child under five years of age. The two pilot subjects did not have another family member who participated in the research study. The other six subjects were grouped into three family dyads. The family dyad was made up of a young woman and either her mother or her mother-in-law. Of these three young women participating in the study, two had a child under five years old, and one woman was pregnant with her first child. In the group of older women who participated in the study, two were the mother-in-law and one was the mother of the younger woman in the family dyad.

The eight subjects resided in five migrant camps, with the family dyads residing in the same household or as neighbors within the same migrant camp. The migrant camps were scattered throughout the service area of the Sparta

Health Center. Except for the translator and members of the family dyads, no subjects were aware of other subjects participating in the study. No effort was made to keep subjects in the family dyads from discussing the study during the period of data collection.

Six of the subjects were born in Mexico, and two were born in the United States. A map which depicts the geographic distribution of subject by place of birth is found in Appendix F. Two of the subjects, who were related and from a remote rural area of Mexico, had lost four children each. These deaths were reported either as a miscarriage or as the death of a child under two years of age. None of these deaths were attributed to caída de mollera. No other subjects reported a fetal or childhood death.

Three of the eight subjects had no formal education; two of the subjects had received a high school diploma or the equivalent while the remaining three subjects had less than a tenth grade education. The demographic data of the eight subjects is presented in Table 1. The subsequent sections of this chapter deal with the findings of this research study.

Subject's Knowledge of caída de mollera

All eight of the subjects knew about caída de mollera. The pregnant woman from the United States had no personal experience with caída de mollera, but had heard about it from her mother. Seven of the subjects had personal experience with caída de mollera; five had children who had caída de

Table 1
Demographic Data Describing Study Subjects.

SUBJECT*	PLACE OF BIRTH	AGE	NUMBER OF CHILDREN	AGE RANGE OF CHILDREN	NUMBER OF CHILD DEATHS	EDUCATION OF SUBJECTS	PRIMARY LANGUAGE
1	Mexico	29	6	12yrs-10mos	0	Mexico/2nd	Spanish
2	Mexico	41	6	15yrs-12mos	0	Mexico/9th	Spanish
3A	mexico	42	4	25yrs-19yrs	0	Mexico/0	Spanish
3B	USA	20	0	EDC• 11/90	0	USA/12th	English
4A	Mexico	50	5	29yrs-19yrs	0	USA/GED	English
4B	USA	30	3	12yrs-3mos	0	USA/10th	English
5A	Mexico	59	11	43yrs-18yrs	4	Mexico/0	Spanish
5B	Mexico	40	9	21yrs-3wks	4	Mexico/0	Spanish

* Note: A subject listed as "A" indicates the mother of mother-in-law of the subject of the same number listed as "B".
• EDC = Expected Date of Confinement.

mollera, and two had observed a younger sibling with caída de mollera. One of the English speaking subjects was chosen to participate in the study because her son was diagnosed as having caída de mollera by her mother-in-law during the period of data collection. This young woman had no previous experience with caída de mollera before her child's illness. Another young woman with very limited knowledge of caída de mollera was chosen to participate in the study in order to learn more about the relationship of a young woman and her mother-in-law in respect to the illness identification/ treatment seeking behaviors of a family dyad.

Caída de mollera was recognized as an illness which affected Hispanic infants. It was reported by six subjects that this illness is only well known among Hispanic people, primarily those with close ties to Mexico. One subject stated,

> The ones who know (about caída de mollera) are from Mexico. I don't think the ones from here know (about it).

The younger women were not felt to be as knowledgeable as the older women. This was expressed by one younger subject as follows,

> The older women know about it (caída de mollera) but the younger women don't know anything about it because they come from Mexico at an early age and then they get married here.

One subject replied when asked if the older women knew more about caída de mollera than the younger women,

> It depends on their education. The people that live out on a farm in Mexico are more apt to believe it than if you are from the city and you are more educated and you know more doctors.

Biomedical health care providers were not felt to have knowledge about caída de mollera, especially those in Michigan. Hispanic biomedical health care providers were believed to know about caída de mollera, but it was felt that they would no longer believe in treating it. One subject stated,

> The doctors in Texas, they might believe but you know here (in Michigan) they are so far away from our culture.

This lack of knowledge and "belief in" caída de mollera were reasons cited by the subjects for not including biomedical health care providers in the care of infants who were felt to be ill with diarrhea caused by caída de mollera. The decision making process used to obtain treatment for a child who has diarrhea will be discussed in greater detail later in this chapter.

Susceptibility

All of the subjects viewed children as being susceptible to caída de mollera at birth. The length of time which a child was viewed as remaining susceptible varied from 4 months to 4-6 years. This variability in susceptibility is shown on Table 2. Once a child had been ill with caída de mollera six

of the subjects viewed the child as being more susceptible to having the same illness occur again. There was no difference in susceptibility reported between boys and girls.

Cause of caída de mollera

Caída de mollera was described as being caused by a variety of reasons. One subject summarized most of the causes of illness which were reported in the study in this way,

> Well, my Mom used to say, when you jerk the baby, or when you pick him up and his head goes like this (indicates a wobbling head movement). Another thing is some people have a tendency to throw the baby up (in the air) or rock the baby real hard and maybe his head is not really supported. Another thing is when they are sucking their bottle and you pull it . . . you kind of jerk it out of their mouth and it (the fontanel) falls down.

A different subject reported that,

> My Mom says that a baby should not be held up (indicates holding the baby upright on the shoulder) to burp him until after his fourth month.

Two of the subjects, a woman and her mother, felt that caída de mollera was only caused by falls and riding horseback with the baby. One of these two subjects stated,

> Over there they ride horses, where I'm from (in Mexico). The horse ride in a bump and if they have a baby (with them on the horse) it causes the (baby's) fontanel to fall."

These same two subjects (a mother and daughter) felt that if the nipple was pulled out of an infant's mouth during sucking it would cause a different illness, barrigas. barrigas was described as the dropping of the hard palate of the mouth which caused ineffective sucking. If this condition was not

cured then the child or adult would stutter as they became older. None of the other subjects had ever heard of barrigas, and it was felt by the other subjects, to be a folk disease unique to the region of Mexico (Guerrero) where these two subjects were born.

Several subjects felt that the infant could cause caída de mollera, by rolling off of the bed, or by sucking too greedily. Another subject reported she had a child who had caída de mollera frequently. This woman felt that the illness seemed to occur spontaneously without an identifiable event to trigger the illness.

Signs and Symptoms

The signs and symptoms which were associated with caída de mollera reported by most of the subjects were fallen anterior fontanel, green diarrhea, fussy or crying and sad or sunken eyes. The other signs and symptoms which were reported but not universally accepted were vomiting and fever. These symptoms were more often associated with other folk illnesses which were part of the subject's differential diagnosis. The process of how the subjects arrived at the differential diagnosis was not addressed within the scope of this study.

It was also interesting to note that the lump on the roof of the mouth reported by three subjects and the noisy or ineffective sucking which was reported by four subjects were signs and symptoms which were attributed to a separate folk disease, barrigas, by two of the related subjects. The

Table 2
Descriptive Signs and Symptoms of caida de mollera.

SIGNS AND SYMPTOMS	SUBJECTS							
	1	2	3A	3B	4A	4B	5A	5B
Fallen anterior fontanel	X	X	X	X	X	X	X	X
Diarrhea - green	X	X	X	NK	X	—	X	X
Lump on roof of mouth	X	X	NK	NK	X	—	*	*
Fussy / crying	X	X	X	NK	X	X	X	—
Vomiting	X	NK	O	NK	—	—	—	X
Noisy / ineffective sucking	X	X	—	NK	X	X	*	*
Appetite: can / will eat			X	NK			—	X
can't / will not eat	X	X		NK	X	X	—	
Sunken / sad eyes	X	X	X	NK	X	—	—	X
Fever	X	NK	X	NK	O	—	—	X
Susceptible age: Birth to	6y	6m	4m	2y	18m	—	1y	1y

Note: (NK) = Not a known symptom
(—) = No response to question
(O) = Symptom not listed for illness
(*) = barrigas
(y) = years
(m) = months

disease, barrigas was not recognized by any of the other subjects, who felt that the signs and symptoms were caused by caída de mollera. One of the subjects, who had only "heard about" caída de mollera, was only able to identify the fallen fontanel as a sign of caída de mollera. A breakdown of the subject description of caída de mollera based on the signs and symptoms is found in Table 2. It is important to note the variability of the signs and symptoms of caída de mollera reported by the subjects.

Diagnosis

The process of diagnosing caída de mollera was not uniform among the subjects. However, the subjects all felt that an individual needed to have seen a child with caída de mollera before the same signs and symptoms could be recognized in another child. Many of the women obtained their knowledge of the illness from their mother, mother-in-law, or an older woman in the community. One subject described her first experience with caída de mollera as,

> . . . A lady told me (what was wrong with my child). When the very first time my child had caída de mollera I was telling this lady I didn't know why my baby was doing green diarrhea. So then the lady said, "Oh, she has caída de mollera. Bring her over and I will show you how to cure her . . ."

The most important diagnostic feature of caída de mollera seemed to be the presence of green diarrhea. One subject reported,

> The first symptom is the green diarrhea . . . After I see the green diarrhea then I look at the top of the head.

While another subject reported,

> Maybe about the fourth day after this (the fontanel) falls down then they do green diarrhea. When the baby has a stool and it's green . . . it is real loose like water but with strings in it. Then they check the soft spot to see if it is down."

Another subject described the green diarrhea as being,

> It is real watery, and there are little balls in it . . . it is like milk when it is spoilt.

A different subject stated,

> Once I saw the baby with green diarrhea I never looked for anything else, I knew it was caída de mollera.

The symptoms were felt to occur immediately after the precipitating event. One subject stated,

> When you sit them (the baby) on the bed and he kind of falls over on the bed the diarrhea starts right away.

Another subject stated,

> . . . not every time the baby falls he is going to get caída de mollera. I think it is because the part (indicated the top of the head) maybe they hit it. Maybe sometimes babies have a softer head.

For many the diagnosis was made and folk treatment was started as soon as the green diarrhea was identified. Several other subjects recognized the irritability and noisy, ineffective sucking or the sinking fontanel as cues to diagnosis in the presence of the green diarrhea. One subject stated,

> The baby is just crying and crying and he has the (green) diarrhea.

Generally, the sad/sunken eyes, fever and the vomiting were signs and symptoms which occurred in the later stages of the illness. One subject stated,

> The eyes you notice and then that is the last part because you know if you don't take care of them (the infant) the first day and if you notice their eyes, then it is the last thing, then you know that they are very sick.

The fontanel was described as sinking deeper and deeper with the "normal" pulse disappearing as the disease progressed. One subject described,

> Well, when it is caída de mollera, you know it is down, you kind of see that little dip on it (the top of the head) but doesn't really pulse, you know it's very weak. You can hardly see the pulse.

One subject gave a graphic description of the death in Mexico of a niece who died of caída de mollera in Mexico.

> They think that the reason the baby died was the little baby had a sister and they think that she may have dropped her. They took her to the doctor and he gave her some medicine and it didn't work on her. They finally took her to a curandera but it was too late for them to do anything about it. Her head was just opening wider and wider . . . and when she died it was in the shape of a cross.

The child who was not properly treated for caída de mollera was felt to develop chronic health problems. If the infant was taken to a doctor and the diarrhea treated without treating the underlying cause, the caída de mollera, the child would suffer from chronic diarrhea.

One subject explained,

> If the child's fallen fontanel is not fixed then the child will always have trouble with diarrhea.

Differential Diagnosis of Folk Diseases

The subjects who were knowledgeable about folk illnesses among the Hispanic population had a well developed process of differentiation between several illnesses which caused diarrhea in infants. These illnesses included empacho, i.e. "stopped up gut", stomach infection, teething, "an agitated mother trying to breast feed", chinquales, i.e. a cause of diarrhea in infant related to the mother's prenatal diet.

Empacho and stomach infection were frequently cited as causing diarrhea in infants. There was some overlap in symptoms, and in fact some subjects viewed stomach infection as the term that is used by doctors to explain all diarrhea in infants.

> When a doctor doesn't know what is causing the diarrhea because he doesn't know about caída de mollera or empacho he will always tell you the baby had a stomach infection.

Empacho and stomach infection are illness of rapid onset and severe symptoms. The infant has large volumes of watery brown or yellow foul smelling stool. They run a fever, and have vomiting. These infants may or may not have an appetite, but eating is always accompanied by diarrhea, and they are fussy and cry "like they are in pain".

These illnesses are not felt to cause the fontanel to drop. The causes of empacho and stomach infection is different. Stomach infection is seen as being caused by an

infectious agent, i.e. bacteria, virus or parasite. Any infections which "fall into the stomach", such as the flu, are felt to cause diarrhea.

Empacho is caused by something which was eaten, e.g. spoilt milk, dirt from the floor, piece of tortilla or other food which the child was viewed as being too young to eat, such as the skin from pinto beans, which becomes stuck to the child's intestine thus causing diarrhea. Both of these illnesses were viewed as being very serious and may result in death in two or three days due to the combination of vomiting and diarrhea.

Other causes of diarrhea cited in the study included: (a) teething which caused yellow diarrhea; (b) a breast feeding mother who was working and "became hot and agitated" would give her baby diarrhea yellow like raw scrambled eggs; and (c) "chinquales" which is felt to be caused by mother eating too many hot peppers during her pregnancy thus causing diarrhea and a red rash with little cuts around the rectum in the infant after birth.

Feelings

This portion of this study explored the feeling of the mother, the extended family, and migrant community including; their perception of the seriousness of caída de mollera, feelings of blame associated with the illness, and the feeling of anger and helplessness associated with the illness of an infant within the migrant community.

Seriousness

Six of the subjects recognized caída de mollera as a serious illness which could result in the death of the infant. The death of the infant was associated by all of the subjects with the presence of the diarrhea rather than the sinking of the fontanel. One subject stated,

> If anything has to do with diarrhea it is serious. If you don't take care of it (the diarrhea) it can finish a person off or (they) end up in the hospital.

Two of the subjects did not feel caída de mollera would result in death, if treated properly. One of these two women stated,

> It (caída de mollera) is probably very serious, but whenever it happened to my children I always took care of it so it was never a problem.

Blame for Illness

None of the subjects viewed caída de mollera as something which could be prevented, other than by being careful when handling an infant. Therefore, the subjects did not generally believe that if an infant developed caída de mollera that anyone was to be blamed.

As one subject responded,

> They don't put the blame on no one but if they see that the mother is very distracted and she doesn't care for the children, then they (the people) say it is the mother's fault. Other than that, it is always an accident.

When asked who would be blamed if the child did not receive appropriate folk treatment for caída de mollera, everyone agreed that the mother would be blamed. The mother

was viewed, by all of the subjects, as being primarily responsible for the care of their children. No one felt that the husband would be blamed if the infant was not treated. One subject stated,

> They (the migrant community) probably won't blame the husband because it is the mother who takes care of the kids. The husband is not there with the kids as much as the mother.

One of the young women, when asked what the Hispanic neighbors would think of her if she failed to have the baby treated for caída de mollera, stated,

> (They would think) that I probably don't care about the baby. They think that I am a bad mother.

All of the subjects reported that it was the family's business how the infant was cared for by the parents. However, six of the subjects felt that they would be very frustrated if they knew that an infant had caída de mollera and yet the infant was not receiving proper treatment by the mother. Several of the subjects felt that if the child was not receiving proper folk treatment it may be due to the mother's lack of knowledge of caída de mollera. One subjects stated,

> If I tell the mother and then if the mother says she doesn't know about this (caída de mollera) . . . but she is willing to let the baby be cured (that is OK). But if the lady (the mother of the sick baby) says, "No, No" . . . then I get mad. You try to tell a person but they don't listen.

Another subject stated,

> I would probably criticize the mother if she didn't treat it (the caída de mollera). I know how to treat it, but I would only do it (the cure) to my own kids. If I saw a baby with caída de mollera I

> wouldn't offer to treat the baby myself, unless the mother asked me (to treat the baby).

If the mother of the infant with caída de mollera failed to take the advice of the extended family or older women in the community, six of the subjects reported that they would take additional steps to influence the mother of the sick infant, or to cure the infant. One of the subjects stated,

> I would probably tell her relatives, "please tell her to do something about that (caída de mollera) because I know what is wrong".

The subjects also stated,

> If the lady (the mother of the sick infant) had older kids I would probably tell them to bring the baby over here and I would fix it (the caída de mollera) without her (the mother) knowing about it.

Another subject did not agree, stating that she would want permission from the mother before she treated the sick baby, she stated,

> If you should do it (the cure) behind their (the parents) back and then the child should die, then you would be blamed.

Six of the subjects stated that they would tell the mother's mother, mother-in-law or another female member of her family to influence the mother of the sick infant to seek appropriate folk treatment.

Role of the Extended Family and Migrant Community

The extended family members, and members of the Hispanic migrant community, are an important influence on the perceptions of a mother of a sick infant. All of the subjects agreed that older Hispanic women knew more about the

recognition and treatment of Mexican folk illness, such as caída de mollera, than did the younger Hispanic women. The younger women tended to rely on their mother or mother-in-law, than did the more experienced women. The extended family appears to provide socialization of the younger women related knowledge of Hispanic folk illnesses. The mothers are not given reinforcement of their perceptions of childhood illness, by the extended family and migrant community, until they have demonstrated culturally appropriate knowledge of folk illness beliefs.

When asked who would make the decision to treat their sick baby a young woman responded,

> Well, me and my husband. First I would take it (the baby) to my mother-in-law, so she could make sure there was something wrong. It would be me and my husband and my mother-in-law.

When asked who would make the final decision how to treat the sick infant the same subject replied that her mother-in-law would make the final decision "because she knows more".

The young woman whose son was diagnosed as having caída de mollera by her mother-in-law stated,

> I trusted her (the mother-in-law) when she told me about it (the caída de mollera). That she thinks that his thing (fontanel) is fallen down.

The two young women tended to rely on the advice of their husbands more than the other six subjects. The one young woman, when asked if she had talked to her husband about the decision to treat their son's caída de mollera, stated,

> Yeah, we did. Men are real funny. Sometimes these (Hispanic) men, they leave it (the decision making) mostly up to you. (They say) "Well, you are the mother . . . I just go to work". He was concerned about it (the child's illness) but he figured me and his Mom had it under control. . . . we would take care of it.

Role of the Father of the Baby

The two young women who had little knowledge of caída de mollera indicated that their husband would have an active role in the treatment decision making process of the sick infant. These women indicated that their husband would be consulted before their mother or mother-in-law was approached for advice.

However, the subject's opinion on whether or not to tell the husband, of the mother not seeking appropriate folk treatment, so that he would influence his wife to seek treatment for the baby was divided. Four of the subjects stated that they would tell the husband, if they knew him well enough to speak to him. However, two of the subjects would not tell the husband for fear of repercussions to the mother of the baby. One of these subjects stated,

> I wouldn't tell her husband because I don't know what he is thinking, maybe he is mad because the baby is sick. Then if I tell him that she (his wife) doesn't want to take the baby . . . to have the baby treated, then he might do something to her (beat his wife). I don't want to get involved in that (to cause trouble between the husband and wife).

Six of the subjects felt more comfortable telling the mother or mother-in-law of the woman with the sick child. The

mother-in-law would be told so that she could influence her son, the baby's father. One of the subjects explained her role in the decision making process like this,

> Yeah, like my daughter-in-law, I would mention it (the baby's need for appropriate folk treatment) to her but then if she didn't do anything about it (seek treatment) then I would tell my son. With my daughter it would be a difference. I would approach my daughter and if she didn't do it (seek appropriate treatment) I would tell her again. I wouldn't go to her husband, I would "keep on" my daughter. With my daughter-in-law it would be different, I think, I would have more hold on my son than on her (my daughter-in-law).

Perceptions of the husband's response to the pressure by his mother to influence his wife were not consistent. Five of the subjects felt that the husband would support his mother if there was a disagreement between his wife and his mother as how to treat the sick baby. Three of the subjects felt that their husband would support their treatment decision. One of these subjects reported,

> He would probably tell his Mom to stay out of it because I know what I am doing. Because in our case they (the family) think I know a lot, which I have a surprise for them (laugh), but his Mom values my opinion a lot and so does my Mom.

The perceptions of the father of the baby were not explored within the scope of this study. However, the responses of the subjects indicate that these men play a significant role in the treatment decision making process.

The Mother's Decision Making

The ability of the mother of a sick infant to make a treatment decision, in spite of the influence and pressure of

the extended family and migrant community, is based on her sense of confidence in her previous experience in making treatment decisions for her family. The younger less experienced mothers were more willing to allow their mother or mother-in-law to make treatment decisions rather than face the censure from their family and the Hispanic migrant community. The older women with more experience treating sick infants seemed to be more confident in making appropriate treatment decisions for both folk and biomedical infant illnesses. One of these subjects explained it this way,

> I decide what is wrong with the kids, no one helps me. Because I have so many kids at first when it (an illness) happened to one of my kids it (the illness) was experience for the next one (illness).

Most of these women with experience felt that they would be able to make decisions and do what they felt was right in spite of the pressure from their mother or mother-in-law.

Role of the Biomedical Health Care Provider

None of the subjects, who knew about caída de mollera, felt that a doctor knew how to recognize and treat caída de mollera. No clear pattern was developed from the data which indicated if the child would ever be taken to the doctor before treatment at home was instituted.

One of these subjects stated,

> If you take a baby with diarrhea and vomiting they (the doctor) will always say they have a stomach infection).

Four of the subjects stated that they would not take a child with caída de mollera to the doctor because "he doesn't know how to cure it." Two of the subjects reported that they would take the baby to the doctor as a part of the diagnosis process.

One of these subjects reported,

> I would take him to a doctor, and if the doctor gave him medicine and the medicine doesn't work then I would look for someone else (in the migrant community) who would help to decide if it was caída de mollera.

Another subject stated, when asked about taking a baby with diarrhea to the doctor for a follow-up visit,

> No, if the medicine for the diarrhea he (the doctor) gave doesn't work, why take him (the baby) back. I would take him to the lady that I know and she would do the cure.

Another of the subjects, when asked if she would ever take her child to the doctor if he became symptomatic with caída de mollera, i.e. green diarrhea and the inability to suck, responded,

> Yeah, here there is not a lot of people who can fix that (caída de mollera). So if I take my baby to a friend, they wouldn't know how to fix that (caída de mollera). So she (my friend) would say to take the baby to the doctor. In Mexico they do the opposite, first they take the baby to a person who knows all of these remedies and if that person can't do anything for the (the sick infant) then they take him (the baby) to the doctor. In Mexico it is done a lot different they don't think of the doctor first, they think of the curandera first.

The biomedical health care provider is viewed as being able to provide palliative treatment at best. Biomedical treatment would be sought only if the family could not obtain

help from individual who was knowledgeable about folk disease identification and treatment.

Summary

A review of the data presented in this chapter indicated that caída de mollera is a Hispanic folk disease which is recognized in the Hispanic migrant farmworker population of western Michigan. The description of the signs and symptoms associated with caída de mollera may be associated with the region in Mexico where the individual was raised. The folk disease caída de mollera is recognized as a serious condition which potentially can cause death or chronic ill health, i.e. chronic diarrhea, if not treated with the appropriate folk treatment. While there are few curanderas available to the migrant farmworker population in western Michigan, there are many older women within the population who can perform the folk cure for caída de mollera. The biomedical health care providers are not viewed as an appropriate source of treatment for caída de mollera, except to control the diarrhea until someone can be found to provide a folk cure. The Hispanic migrant community, including female extended family members, and older women in the migrant community, play an important role in influencing the decision making of the mother with a sick infant. These individuals, while they do not blame the mother for causing the caída de mollera, will hold the mother responsible if she does not seek the appropriate folk treatment for her sick infant.

CHAPTER VI
SUMMARY AND CONCLUSIONS

Introduction

This chapter will summarize the research findings in relation to the literature. Caída de mollera is frequently mentioned in literature as one of several Mexican folk illnesses affecting infants. However, no research has been conducted within the past twenty years to determine the current beliefs of a Hispanic population related to caída de mollera. The interpretation of the study findings will be translated into implications for the nursing practice of the Clinical Nurse Specialist. The recommendations for further research will be outline from the research findings.

Summary of Research

Purpose of the study. This research study explored the perceptions of eight Hispanic mothers who are migrant farmworkers in western Michigan, to determine their belief in the Mexican folk disease, caída de mollera. This study explored their identification of the cause of the illness, and the signs and symptoms that they associate with this folk disease are described.

The subjects. The eight subjects who participated in the study were representative of the women in the Hispanic farmworker population in the area surrounding Sparta, Michigan. The demographic data collected on the subjects indicate that the women ranged in age from twenty to

fifty-nine years of age. Five of the eight subjects were born in Mexico while two were born in the United States, both in Texas. With the exception of the woman who was pregnant with her first child, all of the subjects had children. The children ranged in age from three weeks to forty-three years of age. The primary language of the subjects was Spanish, with three being bilingual in Spanish and English. Three of the subjects from Mexico had received no formal education with the other two subjects from Mexico having received a 2nd and 9th grade education. Of the three subjects educated in the United States, two had completed a High School or equivalent (GED) with one completing the 10th grade. Two of the women from Mexico, a mother and daughter, had experienced four deaths of a child, none of these deaths were attributed to caída de mollera by the mother.

Data collection and analysis. Data was collected through interviews with the subjects in either English or Spanish, using a translator. The interviews were a series of open ended questions based on the research questions and information obtained during the initial interviews. The data was analyzed using Grounded Theory methods.

Summary of findings. This research found that all of the subjects believed in the existence of caída de mollera as a cause of illness in infants. The causes of caída de mollera closely parallel the literature and included the rough handling of infants during routine care or in play, removing the nipple from the infant's mouth while nursing, and

accidental falls by infants. The signs and symptoms which were most diagnostic of caída de mollera i.e. fallen fontanel in this group included green diarrhea, fussiness and crying, sunken or "sad" eyes. Other signs and symptoms which were less often associated with caída de mollera included the inability to suck effectively, a decreased appetite, a lump on the roof of the mouth, and fever. Generally, the subjects felt the child was susceptible to caída de mollera from birth to twenty-four months.

Additional findings which evolved during data collection and which were not a part of the original research questions include the process of diagnosis utilized to determine the cause of illness, and the feeling of the mother and family associated with the diagnosis of caída de mollera. The feelings explored include the perception of the seriousness of the disease, the blame placed on the caregivers by the family and community with the diagnosis of caída de mollera in their infant, and the feelings of anger and helplessness associated with a diagnosis of caída de mollera. The impact of the family and community on the process of illness diagnosis and the treatment seeking behaviors by the mother of a sick infant were explored. The results of the study indicate that even when the young mother has limited knowledge of caída de mollera the care of the infant is strongly influenced by the beliefs of the extended family and the Hispanic migrant farmworker community.

All of the findings from this study influence the interaction of the nurse and the Hispanic mother with a sick infant who is part of the migrant farmworker community. Figure 4, diagrams the factors which influence the interaction of the mother of the baby and the nurse in the process of human interaction between the nurse and the Hispanic migrant farmworker mother whose child is perceived to be ill with caída de mollera.

Discussion

The signs and symptoms of caída de mollera (green diarrhea, excessive crying or restlessness, sunken or "sad" eyes, fever) reported in the literature (Ehling, 1981; Foster, 1953; Johnson, 1979; Kay, 1977; Martinez, 1966; Rubel, 1960) were also identified by the Hispanic migrant farmworker population in the study. However, greater variability in the signs and symptoms were identified within the study population than had been indicated by the literature reviewed. The Hispanic migrant farmworker population studied did not describe a consistent understanding of the "pathophysiology" of the folk disease caída de mollera, e.g. the dropping of the fontanel which causes the hard palate in the mouth to drop thus causing the inability to suck and results in diarrhea, as had been reported by Rubel (1960) and Foster (1953). There was some indication from this study that this lack of knowledge of "pathophysiology" by this population of Hispanic migrant farmworkers was related to the fact that

LAY REFERRAL SYSTEM

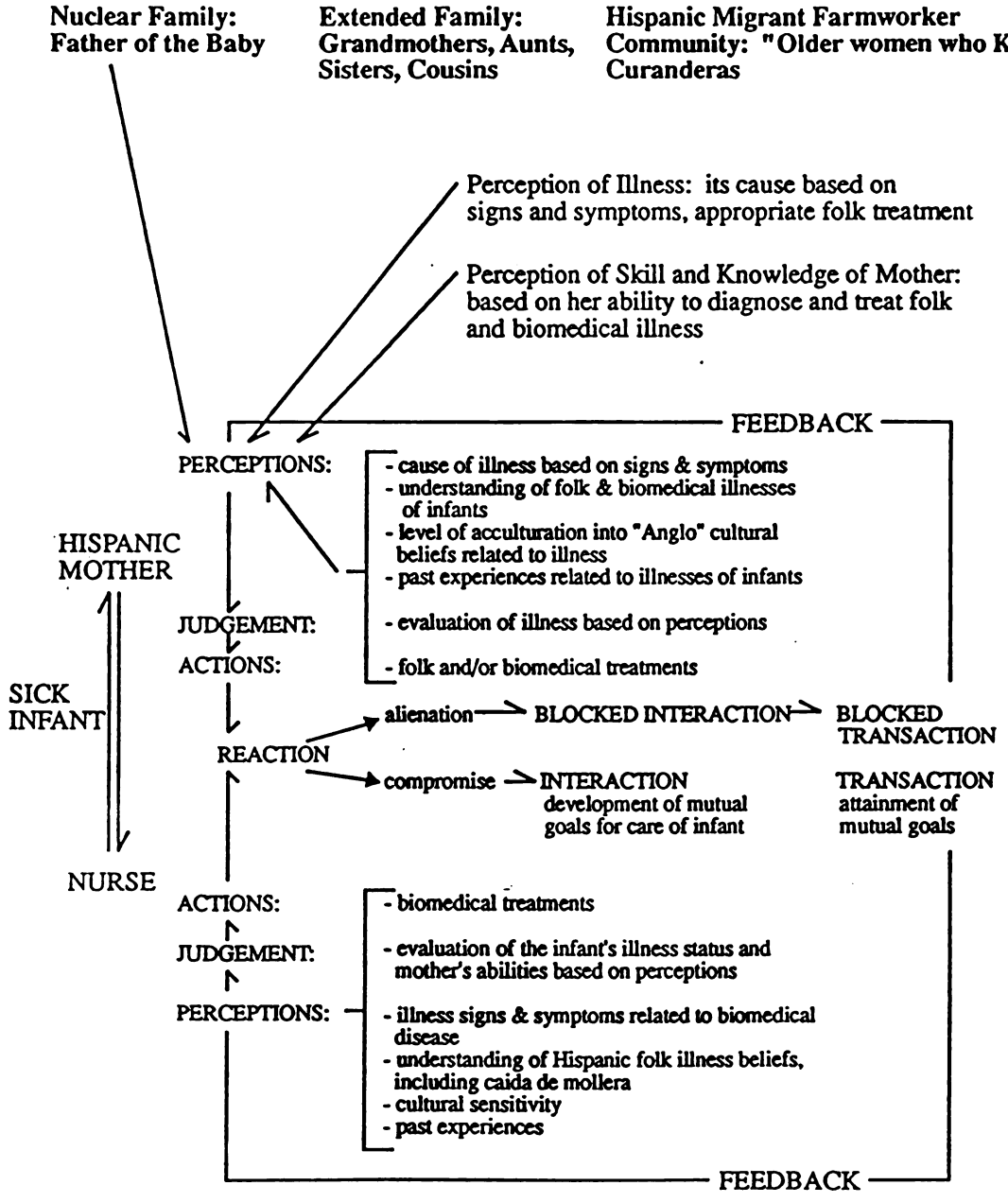

Figure 4
The Adaptation of King's Process of Human Interaction Between the Nurse and the Hispanic Mother of a Sick infant.

their knowledge of folk disease was primarily learned from other family members and older women in the community rather than from a curandera. This observation developed from the research could not be supported by the literature due to lack of comparable studies. Results of the study did reinforce the findings of Johnson (1979) and Kay (1977) that reported that diarrhea was seen as a result of caída de mollera and was closely related to dehydration in infants.

The study revealed that the perceptions of the mother of the baby is strongly influenced by the extended family and the Hispanic migrant farmworker community. These influential individuals include a woman's mother, mother-in-law, female relatives such as aunts, sisters, and cousins, and older women from the Hispanic migrant farmworker community. The interviews revealed that these individuals are a strong influence on the way in which young mothers learn to recognize, label, and seek treatment for the signs and symptoms of infant illness, i.e. caída de mollera.

The family, both nuclear and extended, and the role of the Hispanic migrant farmworkers community, primarily older women and curanderas, are factors which must be considered in the adaptation of King's (1981) process of Human Interaction. The decisions related to infant health care are influenced by the beliefs of family and Hispanic migrant farmworker communities. These individuals make up a group of individuals that has been described by Twaddle (1977) as the Lay Referral System. The lay referral system are individuals

who are felt to have the knowledge and experience to make decisions related to not only diagnosis but also the treatment seeking strategies for both folk and biomedical disease. In Figure 4, the additional influences of the individuals making up the Hispanic migrant farmworkers lay referral system, identified during this research, are added as an example of how the model should be expanded. The adapted model indicates how the lay referral system influence the perception of the mother of the sick infant. In addition, the adapted model indicates factors which block the Process of Interaction between the nurse and the mother during initial and subsequent illness episodes.

The results of the study also revealed that the biomedical health care system is not viewed as a primary source of treatment for signs and symptoms identified as caída de mollera by the Hispanic migrant farmworker population.

In spite of the perception that the biomedical health care system is not a primary source of treatment for caída de mollera there were opportunities for the biomedical health care provider, i.e. the Clinical Nurse Specialist, to interact with the mother during the infant's illness. The biomedical health care system was utilized by some Hispanic migrant farmworkers to confirm the diagnosis of caída de mollera, by virtue of the inability of the biomedical health care provider's ability to effect an immediate cure of the infant's diarrhea. Other Hispanic migrant farmworkers utilized the biomedical health care system to treat the diarrhea,

associated with caída de mollera, until appropriate folk treatment could be obtained. Therefore, the biomedical health care provider, i.e. the Clinical Nurse Specialist, is given opportunities to interact with the Hispanic migrant farmworker during the infant's illness and to develop mutually acceptable treatment goals.

Implications for Advanced Nursing Practice

This research study has provided implications for the various roles within the scope of practice of the Clinical Nurse Specialist. This section will deal with the implications for the Clinical Nurse Specialist in the role of Client Advocate, Assessor and Educator.

Client Advocate

The Clinical Nurse Specialist must act as a client advocate. In order to be a client advocate the Clinical Nurse Specialist must believe in and encourage the empowerment of Hispanic migrant farmworkers to determine the access and utilization of health care by this population. Empowerment is basic to the development of mutual goal setting. In order to act as a client advocate the Clinical Nurse Specialist must be aware of the cultural values, norms and patterns of belief before attempting to provide health care to a population from a different cultural background.

This research has also demonstrated that the literature, while being able to provide an outline of the norms, values and patterns of belief of a culture, may not be able to

provide specific information for a subgroup of the culture being served by the Clinical Nurse Specialist.

This study is an attempt by a member of the majority biomedical health care culture to understand the Hispanic migrant farmworker's perception of one of the illnesses which is a part of the folk illness belief system. This study was conducted in order to demonstrate that research can be conducted to promote communication, facilitate participation the biomedical health care system and to empower the Hispanic migrant farmworker to act on their own behalf. The facilitating of communication between the primary health care provider and the Hispanic migrant farmworker is the first step in improving biomedical health care to the Hispanic migrant farmworker population.

Assessor

The Clinical Nurse Specialist, acting as an assessor must explore all aspects of the presenting patient, physical, as well as the sociocultural aspects of the illness experience. This study has emphasized the continuing need for the Clinical Nurse Specialist, to not only assess the presenting signs and symptoms of an illness but to also assess the meaning which they have for the individual and the family. The perceptions of the signs and symptoms, i.e. green diarrhea, irritability, ineffective sucking, sunken "sad" eyes, and a depressed anterior fontanel, by the mother of the baby and the extended

family has been shown by this study to differ from the biomedical health care providers, i.e. the Clinical Nurse Specialist.

The Clinical Nurse Specialist's ability to assess the perceptions of the mother of the baby and the extended family related to the signs and symptoms associated with the illness identified as caída de mollera by the Hispanic migrant farmworker population will increase the understanding of the Clinical Nurse Specialist as to the judgement about its meaning. The nurses ability to identify this perception of the illness episode will help to facilitate mutual goal setting between the Clinical Nurse Specialist and the family of the infant through facilitating of communication and the process of nurse-patient interaction.

The report of diarrhea in infants and young children is identified as a very serious symptom by the Hispanic migrant farmworker population interviewed. The diarrhea reported by the mother is described as frequent green stools which are not associated with a foul smell. A thorough description of the diarrhea including color, texture i.e. shreds of mucous, or white balls, frequency, odor should be obtained by the Clinical Nurse Specialist when the history of the present illness is obtained from the mother. In addition, the association by the mother of the onset diarrhea to a specific event i.e. rough handling, or a fall should also be noted by the Clinical Nurse Specialist.

The infant's reported ability to take nourishment should be assessed by the Clinical Nurse Specialist. Likewise, the baby's reported inability to suck or the presence of noisy sucking or smacking (with the tongue creating partial suction on the roof of the mouth), while trying to suck, are important cues that are associated with caída de mollera by the Hispanic migrant farmworker population in western Michigan. The infant irritability or frustration when feeding is being attempted should also be considered an important cue to the perception of serious illness in infancy and should be regarded as such by the Clinical Nurse Specialist.

The mother may report an increased awareness of the condition of the anterior fontanel. This awareness of the fontanel may include reports of a decrease in the pulse within the fontanel. The Clinical Nurse Specialist may also be asked by the mother of the baby if anything appears to look different about the infant's fontanel. Questions by the mother related to the fontanel should be used to elicit further information related to the mother's perception of the fontanel and its relationship to the present illness.

If the Clinical Nurse Specialist suspects that the family perceives the illness to be caused by a folk illness, the nurse should ask the family if they believe the illness is caída de mollera. If asked if the Clinical Nurse Specialist "believes in" caída de mollera the nurse need only to report that he/she has heard of the illness and is trying to learn more about it. Based on the information gained from the

study, the non Hispanic nurse is not expected to believe, but rather to listen with an open mind, and to respect the seriousness of the Hispanic migrant farmworkers' perception of the disease.

Educator

The role of the Clinical Nurse Specialist as an educator is twofold. First, the Clinical Nurse Specialist who understands the role of the folk illness beliefs as they influence the perceptions of Hispanic migrant farmworkers must educate other biomedical health care providers. Second, the Clinical Nurse Specialist working with Hispanic migrant farmworkers must provide patient education which takes into consideration potential folk illness beliefs and utilize this understanding to develop mutual goal setting in the establishment of a health care plan.

Problems may arise between the biomedical health care providers and the folk health care providers within the Hispanic migrant farmworker community. The Clinical Nurse Specialist, who is knowledgeable of the cultural health and illness beliefs of the Hispanic migrant farmworker is in a unique position of helping the Hispanic migrant farmworker family to make informed decisions related to the treatment of their child.

The Clinical Nurse Specialist, acting in the role of educator is able to develop specific suggestions which will allow other Clinical Nurse Specialists and other members of the health care team to improve the care provided Hispanic

migrant farmworkers based on this research. One of the most important functions of the Clinical Nurse Specialist is to educate health care professionals as to possible folk illness beliefs of Hispanic migrant farmworkers and strategies to assess for specific folk illnesses such as caída de mollera.

When treating an infant with diarrhea the term "stomach infection" to describe diarrhea of unknown etiology, should be avoided. If the cause of the diarrhea is unknown the Clinical Nurse Specialist should state that the exact cause of the diarrhea is unknown but reinforce that the biomedical treatment suggestions are to prevent the infant from becoming weaker until the cause can be identified and treated. If antibiotics or other medication are given to treat the diarrhea explain how many days the diarrhea is expected to continue before the diarrhea will improve or resolve.

The Spanish speaking parent is entitled to the same quality of patient education regarding the illness its treatment, and its projected outcome as is provided to English speaking clients. It is the Clinical Nurse Specialist's responsibility to provide this patient education regardless of her ability to speak Spanish. Therefore, the Clinical Nurse Specialist who does not speak Spanish should be sure that an appropriate Spanish speaking translator is available to assist in providing patient care and education to the Hispanic clients.

The Clinical Nurse Specialist must attempt to determine what folk treatment strategies will be utilized by the family

at the same time as the biomedical treatment. Once the folk treatment has been described the Clinical Nurse Specialist can encourage and support those which are consistent with therapy, and then explain those that are identified as potential conflicts between the two treatment strategies. The Clinical Nurse Specialist and the Hispanic family must problem solve conflicts between the folk and biomedical treatment plans. The Clinical Nurse Specialist must avoid blanket rejection of all folk treatment without taking the time to identify what they will be. This blanket rejection give the impression that to the Hispanic migrant farmworker that their beliefs are not even important enough to be listened to by the Clinical Nurse Specialist. It is meaningful to suggest the importance of continuing biomedical treatment as prescribed, at the same time as the folk treatment, instead of stopping the biomedical treatment after a day or two in order to initiate folk treatment.

It is important to reinforce and negotiate follow up for infant diarrhea. Diarrhea in infants is perceived as a very serious illness especially when associated with fever and vomiting. The failure of the Clinical Nurse Specialist to initiate follow up appointments for infant diarrhea indicates to the mother a lack of recognition of its seriousness on the part of the biomedical health care provider. A specific time table of when and why the mother needs to return with the infant is important in reinforcing the need for biomedical compliance.

Implications for Nursing Research

This study is focused on the exploration of aspects of a Mexican folk disease, caída de mollera, as it is perceived by individuals who are Hispanic migrant farmworkers in western Michigan. Ground Theory Methods, developed by Glaser and Strauss (1967) were used to collect data which describes the perceptions of these Hispanic migrant farmworkers. Ground Theory, by its very nature, allows the perceptions of a population to be described in its own terms. In addition, Grounded Theory Methods allow data to be collected in areas which are important to the subjects but had not been previously recognized by the researcher significant.

For the purpose of this study only the perceptions of the Hispanic migrant farmworkers were explored. There is need for future research into the perceptions of the nurse regarding knowledge of Hispanic folk diseases, such as caída de mollera and the perceived relationship to fluid balance disturbance.

The aspects of the perceptions of the Hispanic migrant farmworkers which was explored within this research consisted of the recognition of caída de mollera as a cause of illness in infants, the factors which cause caída de mollera to occur, and the signs and symptoms of illness which are associated with caída de mollera by the Hispanic migrant farmworkers. Additional questions were asked to explore the woman's perception of the seriousness of caída de mollera, the mother's perception of the infant's susceptibility to caída de mollera, and the mother's feelings related to the illness

experience. The data were collected in an attempt to clarify the mother's perception of the folk disease, caída de mollera, in order to better understand the process of human interaction between the mother who is a Hispanic migrant farmworker and the nurse. This research identified the significance of diarrhea as a serious symptom of infant illness by these Hispanic mothers. The distinction of the color, consistency and other descriptive features of the diarrhea as a factor in the diagnosis of caída de mollera versus other folk illnesses was identified, by this study.

The Clinical Nurse Specialist needs to take an active role as a researcher in the further study of caída de mollera and other Hispanic folk disease recognized by the Hispanic migrant farmworker population. The following section describes the implications for further research which have evolved from this study.

Due to the limited number of ethnographic research studies on the Hispanic folk disease caída de mollera, within the past twenty years, there is a need for additional research on this subject. The limited understanding of the scope and the depth of the folk illness beliefs related to caída de mollera and the interaction of various factors influencing the health care of infants within the Hispanic migrant farmworker population indicates the need for additional ethnographic research. The exploration of the cultural beliefs, the role of the extended family and migrant community, and the perception of the appropriateness of biomedical intervention

in infant illness would be difficult to study using quantitative research methods. The historical poor attitude of the biomedical health care system regarding the Hispanic folk illness beliefs would be a barrier to conducting research using quantitative methods on these culturally sensitive issues, within the Hispanic population.

This research study, while identifying additional topics to be explored, was not able to provide a clear picture of the pattern of beliefs related to caída de mollera in this Hispanic migrant farmworker population due to its small sample size. The results of this research have indicated a need for further research in several areas of Hispanic folk illness belief.

The results of this research indicate a need for research on several aspects of Hispanic folk illness belief. A study is needed to determine the incidence of caída de mollera in the Hispanic migrant farmworker population. Clarification of the incidence of caída de mollera will emphasize the need to study Hispanic folk disease by health care providers. Additional studies are needed to determine the process of differential diagnosis used by the mother to determine the cause of infant illness. Understanding of the Hispanic mother's process of differential diagnosis during an illness episode would provide the Clinical Nurse Specialist unimportant insight which could be used in providing anticipatory guidance during well child care. Studies must be conducted to determine the various treatment strategies

utilized to relieve illness symptoms and cure folk disease, i.e. caída de mollera. An understanding of the folk treatment strategies will clarify areas of potential conflict between biomedical and folk treatment of the symptoms of infant illness. Finally, the influence of the lay referral system on the mother's identification of illness symptoms, labeling of folk biomedical disease and treatment seeking strategies must be studied. The focus of nursing has always been on the patient, or the mother of a child. This research has indicated that the extended family and migrant community plays a greater role in the decision making process related to the health care of infants when the mother is young or is not socialized into the Hispanic folk illness beliefs than has been previously recognized.

In addition, further research needs to be conducted as to the knowledge and beliefs of men in the Hispanic migrant farmworker population concerning caída de mollera and other folk illnesses. While men generally are not involved in the direct care of infants during illness, there needs to be a greater understanding of their knowledge of folk illness. The role of the father of the baby during infant illness and his influence on the treatment decision making process by the mother of the baby and the extended family is an area which has not been previously explored.

Finally, research needs to be conducted with biomedical health care providers to determine their knowledge of caída de mollera and their attitudes related to the folk treatment of

Mexican folk disease. This research would give insight as to the ways biomedical health care providers, i.e. Clinical Nurse Specialists block interactions with Hispanic migrant farmworkers in the attempt to provide quality health care.

Summary

This research study has provided insight into the perceptions of Hispanic migrant farmworkers in western Michigan related to the Hispanic folk disease, caída de mollera. The results indicate that all of the women interviewed knew about caída de mollera and recognized it as a threat to infants. The causes of caída de mollera were felt to be falls, rough handling, and removing the nipple from the infant's mouth while they were sucking. Additional causes of caída de mollera were identified and the process of differential diagnosis between various Hispanic folk diseases causing diarrhea in infants were described. Various signs and symptoms of caída de mollera were described, the most common being, green diarrhea, irritability and excessive crying.

This reseach also determine that there is a lack of knowledge of the extent of folk illness beliefs among this population of Hispanic migrant farmworkers. Hispanic folk illness beliefs and the decision making process by which treatment decisions are made needs to be explored in greater detail based on the findings of this study.

The most important product of this research was that cross cultural research can be conducted and meaningful

results obtained by a non-Spanish speaking nurse, working through a translator in a Hispanic migrant farmworker population. While the process is slow and a times cumbersome, a caring, interested, non judgmental nurse can obtain information needed to provide appropriate health care to a Hispanic farmworker population. There can no longer be an excuse. Nursing does not need to wait for other disciplines or Spanish speaking health care providers to carry out the research that is needed to meet the health care needs of the Hispanic migrant farmworker population.

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APPENDICES

APPENDIX A

MICHIGAN STATE UNIVERSITY

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING
HUMAN SUBJECTS (UCRIHS)
206 BERKEY HALL
(517) 353-9738

EAST LANSING • MICHIGAN • 48824-1111

July 10, 1990 **IRB# 90-288**

Patricia A. Darling
251 Lewis Street
Rockford, MI 49341

Dear Ms. Darling:

RE: "CAIDA DE MOLLERA: PERCEPTIONS OF HISPANIC MIGRANT FARMWORKERS IN WESTERN MICHIGAN **IRB# 90-288**"

The above project is exempt from full UCRIHS review. The proposed research protocol has been reviewed and the rights and welfare of human subjects appear to be protected. You have approval to conduct the research.

You are reminded that UCRIHS approval is valid for one calendar year. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval one month prior to July 10, 1991.

Any changes in procedures involving human subjects must be reviewed by UCRIHS prior to initiation of the change. UCRIHS must also be notified promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

Thank you for bringing this project to our attention. If we can be of any future help, please do not hesitate to let us know.

Sincerely,

Kenneth O. Marvin, Jr.
Acting Co-Chair, UCRIHS

KOM/sar

APPENDIX B

APPENDIX B

Consent/Pilot Study

My name is Patricia Darling. I am a nurse and a student at Michigan State University. As a nurse who has worked with the migrant farmworkers I know that there are many things that nurses do not understand about Mexican illnesses. I would like to learn more about one of these Mexican illnesses so that I can write a paper that helps nurses understand more about this sickness. Before I start talking to the women in the camps I would like to talk to two or three women to make sure I ask the questions in the right way and that the questions make sense. I will also learn how long it takes to ask these questions. Some of the questions tell me about you and some will tell me what you know about caída de mollera.

Before you agree to answer these questions I need to explain to you about your rights and what I plan to do with the answers.

1. All of the questions I ask will be repeated in Spanish to you by a translator. Your answers will be repeated in English to me by the translator. If the questions are confusing or if you do not understand I will repeat it or explain it more clearly.

2. All of the questions and answers will be recorded on a tape recorder. You may answer the questions in Spanish or English . . . whichever is best for you.

3. The comments you have made in our conversation will not be associated with you by name, in the paper I am writing. No one but the translator and I will know how you answered the questions. The translator and I promise you that we will not discuss how you have answered the questions with anyone that is not involved with the paper.

4. You do not have to answer any questions. If you prefer you may not participate at all without any problems. If this is the case just tell me you do not want to participate.

5. If you wish me to explain these questions to your husband or family before we start I would be glad to meet with them also.

I have had the study explained to me and my questions answered and I agree to participate. I understand that I will be given a copy of the consent form.

SIGNATURES: (Subject, subject's spouse, researcher, translator)

APPENDIX B

CONSENTO/PILOT STUDY

Mi nombre es Patricia Darling. Soy enfermera y estudiante en la Universidad del Estado de Michigan. Como una enfermera que ha trabajada con migrates agricultor yo se que hay muchas cosas que las enfermedades mexicanas. Yo quiero aprender mas de estas enfermedades mexicanas para escribir un papel para ayudar a las enfermeras entender mas de esta enfermedad. Antes de empezar a hablar con las mujeres de el campo quiero hablar con dos o tres mujeres para estar segura que yo estoy preguntando las preguntas en el modo correto, y que las preguntas tengan sentido. Yo tambien sabre cuanto tiempo toma para preguntar estar preguntas. Unas preguntas me dicen de usted y otras me dicenlo que usted sabe de la mollera caída.

Antes que usted consienta a contestar estas preguntas, yo necesito explicarle a usted sus derechos, y que pienso hacer con sus respuestas.

1. Todos las preguntas yo preguntara seran repitidas en Espanol por una tranductora. Sus respuestas seran repitidas en ingles a mi por la tranductora. Si las preguntas lo confusen o si no las entiende nosotros los repiteremos o se las explicamos mas claras.

2. Todas las preguntas y respuestas seran grabada en un magnetofono. Usted puede contestar las preguntas en espanol o en ingles . . . cualquirera sea mejor para usted. Una vez que acabemos de hablar yo escribere en maquina nuestra conversacion, para yo poder escribir mi tema.

3. Los comentarious que usted ha hecho no seran asosiada con usted por nombre, en el tema que yo estoy escribiendo nadie mas que la traductora y yo sabran como contesto usted las preguntas. La tranductora y yo prometemos que no vamas a discutir con nadie, como usted contesta las preguntas, con nadie que no este enrededo con el tema.

4. No tiene usted que contestar ningun pregunta. Si prefiere no tiene que participar, sin ningun problema. Si este es el caso digame que no quiere participar.

5. Si usted desea que le explice estas preguntas a su esposo o familia antes que empesemos yo tendre mucho qusto en conocerlos.

El estudio fu explicada a mi y mis preguntas contestadas, y consiente a participar. Yo entiendo que me sera dada una copia de la forma de consento.

FIRMAS:

APPENDIX B

CONSENT FORM/RESEARCH STUDY

My name is Patricia Darling. I am a nurse and a student at Michigan State University. As a nurse who has worked with the migrant farmworkers I know that there are many things that nurses do not understand about Mexican illnesses, that effect migrant farmworkers. I would like to learn more about one of these Mexican illnesses so that I can write a paper that will help nurses understand this type of sickness better.

I will be talking to several women who are migrant farmworkers. I have many questions that I will ask. Some of the questions will tell me about you, and some will tell me about mexican illness. The first time we talk it will take about 60 minutes. The second time we talk it will take less time, about 45 minutes. I may have to return after that to ask more questions, but this will be for a very short time.

Before you agree to answer these questions I need to explain to you about your rights and what I plan to do with the answers.

1. All of the questions I ask will be repeated in Spanish to you by a translator. Your answers will be repeated in English to me by the translator. If the questions are confusing or if you do not understand I will repeat it or explain it more clearly.

2. All of the questions and answers will be recorded on a tape recorder. You may answer the questions in Spanish or English . . . whichever is best for you.

3. The comments you have made in our conversation will not be associated with you by name, in the paper I am writing. No one but the translator and I will know how you answered the questions. The translator and I promise you that we will not discuss how you have answered the questions with anyone that is not involved with the paper.

4. You do not have to answer any questions. If you prefer you may not participate at all without any problems. If this is the case just tell me you do not want to participate.

5. If you wish me to explain these questions to your husband or family before we start I would be glad to meet with them also.

I have had the study explained to me and my questions answered and I agree to participate. I understand that I will be given a copy of the consent form.

SIGNATURES: (Subject, subject's spouse, researcher, translator)

APPENDIX B

FORM A DE CONSENTO

Mi nombre es Patricia Darling. Soy una enfermera y estudiante de la Universidad del Estado de Michigan. Como una enfermera que ha trabajado con migrantes agricolas, yo se que hay muchas cosas que las enfermeras no entienden de las enfermedades mexicanas, que afectan migrante agricolas. Yo quiero aprender mas de una enfermedad mexicana para escribir una tema que ayudara a enfermadad mejor.

Yo estare hablanda con varias mujeres que son migrante agricolas. Yo tengo muchas preguntas que yo preguntare. Algunas de las preguntas me diran de usted, y otras me diran lo que usted sabe de la enfermada mexicana. La primera vez que hablemos tomara como uno 60 minutos. La segunda vez que hablemos tomara menos minutos, como 45 minutos. Probablemente tendre que regresar otra vez, para preguntar mas preguntas, pero esto sera por tiempo muy poco.

Antes que usted consienta a contestar estas preguntas, yo necesito explicarle a usted sus derechos, y que pienso hacer con sus respuestas.

1. Todos las preguntas yo preguntara seran repitidas en Espanol por una tranductora. Sus respuestas seran repitidas en ingles a mi por la tranductora. Si las preguntas lo confusen o si no las entiende nosotros los repiteremos o se las explicamos mas claras.

2. Todas las preguntas y respuestas seran grabada en un magnetofono. Usted puede contestar las preguntas en espanol o en ingles . . . cualquirera sea mejor para usted. Una vez ue acabemos de hablar yo escribere en maquina nuestra conversacion, para yo poder escribir mi tema.

3. Los comentarious que usted ha hecho no seran asosiada con usted por nombre, en el tema que yo estoy escribiendo nadie mas que la traductora y yo sabran como contesto usted las preguntas. La tranductora y yo prometemos que no vamas a discutir con nadie, como usted contesta las preguntas, con nadie que no este enrededo con el tema.

4. No tiene usted que contestar ningun pregunta. Si prefiere no tiene que participar, sin ningun problema. Si este es el caso digame que no quiere participar.

5. Si usted desea que le explice estas preguntas a su esposo o familia antes que empesemos yo tendre mucho qusto en conocerlos.

El estudio fu explicada a mi y mis preguntas contestadas, y consiente a participar. Yo entiendo que me sera dada una copia de la forma de consento.

FIRMAS:

APPENDIX B

AGREEMENT/TRANSLATOR

I understand that I will be acting as a translator for Patricia A. Darling. She is collecting information from Hispanic migrant farmworkers this summer, so that she can do a research study as a part of her school work at Michigan State University.

As a translator, I will be required to repeat everything both Patricia and the people she interviews say. I will act as the voice for these people and not add any of my own words.

I also understand that the information that I hear during these interviews is confidential and will not be repeated to anyone outside of the study. If I have any questions about what is being said I can ask Patricia and she will answer any of my questions.

Signed:

Patricia A. Darling
Researcher

Translator

APPENDIX C

APPENDIX C

QUESTIONNAIRE

DEMOGRAPHIC DATA

1. INITIALS OF SUBJECT _____ 2. INTERVIEW CODE # _____

3. GROWER'S NAME _____ 4. LOCATION OF CAMP _____

5. DOB _____ 6. PLACE OF BIRTH _____

7. RESIDENCE DURING THE WINTER _____

8. HIGHEST GRADE IN SCHOOL COMPLETED _____

9. LOCATION OF EDUCATION _____(US/MEXICO)

10. NUMBER OF LIVING CHILDREN _____ AGES _____ SEX _____

_____ _____

_____ _____

(Add lines as needed) _____ _____

_____ _____

11. DID YOU HAVE ANY CHILDREN DIE AT BIRTH OR WHEN THEY WERE CHILDREN? NO____YES____ IF YES, WHO, WHEN AND OF WHAT?

12. DO YOU KNOW ABOUT CAÍDA DE MOLLERA?

A) IF ANSWER IS NO TERMINATE WITH THIS PORTION OF QUESTIONNAIRE.

B) IF ANSWER IS YES CONTINUE WITH PART II.

APPENDIX C

INITIAL INTERVIEW

1. HOW DO YOU KNOW ABOUT CAÍDA DE MOLLERA?
(POSSIBLE PROBE QUESTIONS)

   Do many people know about caída de mollera?

   Who are the people that know about caída de mollera?

2. TELL ME ABOUT WHAT YOU KNOW ABOUT CAÍDA DE MOLLERA.
(POSSIBLE PROBE QUESTIONS)

   What parts of the body are affected?

   How can you tell if the baby has it?

   How does the disease work in the body?

   Who is most apt to get caída de mollera?

   What causes caída de mollera?

3. WHEN THE BABY IS SICK HOW DO YOU DECIDE WHAT IS WRONG WITH THE BABY?
(POSSIBLE PROBE QUESTIONS)

   Who helps with the decision?

   How does the person decide the illness is caída de mollera and not something else?

   Does the diagnosis ever change, say from empacho to caída de mollera? Or from caída de mollera to the flu?

4. HOW SERIOUS IS CAÍDA DE MOLLERA?
(POSSIBLE PROBE QUESTIONS)

   What happens if caída de mollera is not treated?

   How many babies die from this?

5. IS THE FAMILY LOOKED DOWN UPON IF THE CHILD HAS CAÍDA DE MOLLERA? IF SO, WHO LOOKS DOWN ON THEM? WHY?
(POSSIBLE PROBE QUESTIONS)

Would you ever tell a nurses or doctor at the clinic that you think your baby had caída de mollera?

6. HOW DO YOU FEEL WHEN YOU HEAR SOMEONE HAS A CHILD WITH CAÍDA DE MOLLERA?

APPENDIX C

FINAL INTERVIEW

1. DEMOGRAPHIC DATA

   What state in Mexico are you from?

2. FEELING BLAME

   If a baby gets sick with caída de mollera who do the people (neighbors & family) blame?

   If the baby doesn't get treated for caída de mollera who do the people (neighbors & family) blame? Why?

3. FEELINGS/ANGER/FRUSTRATION

   What are your feelings toward a mother who baby has caída de mollera and she doesn't get the baby fixed?

   What would you do about it? (Role of husband?)
   If within your family?
   If outside your family?

4. CAUSE/FEELINGS/BLAME

   Can the baby cause caída de mollera by sucking to greedy?

5. SIGNS AND SYMPTOMS

   Does a baby with caída de mollera have:
   Fever? Sunken eyes? Vomiting?

   Tell me about the pulse in the fontanel when the baby has caída de mollera?

6. DIAGNOSIS

   Is the color of the diarrhea important in deciding if the baby has caída de mollera?
   Green? Black? Yellow?

   Do you have to see a baby with caída de mollera before you can diagnose it?

What is the most important symptom in diagnosing caída de mollera? Rank order S & S.

7. DIFFERENTIAL DIAGNOSIS

What are the similarities and differences between caída de mollera and
- mal ojo?
- empacho?
- barrigas?
- stomach infection?

8. TREATMENT DECISION-MAKING

Would you ever take a baby with caída de mollera to the doctor?

Would you ever take a baby with diarrhea to the doctor? When? Why?

What is the difference from caída de mollera?

Would your husband ever tell you to take a baby who is sick to the doctor/curandera?

If your mother/mother-in-law told you to take the baby to a doctor or curandera and you didn't think that was the right decision what would you do?
- What would you mother/mother-in-law do?
- What role would your husband have in the decision making?
  - Would he support you?
  - Would he agree with the mother/mother-in-law?
  - Would he stay out of it?

What is the difference between a lady who is a curandera and a lady who knows cures?

9. FREQUENCY, EXPERIENCE

Have you had a baby(ies) with caída de mollera?
No? (If no go to #19)
Yes? #_____ If yes,did it recur in that child?

Have you seen a baby with caída de mollera
No? (If no go to #20)
Yes? Who? When? Where?

Have you only heard about caída de mollera from a relative or friend who has seen caída de mollera?
- Who was this person?
- Who was the baby?

10. SERIOUS

Do babies die from the fallen fontanel or from the diarrhea?
(Ma.S. Can babies die from caída de mollera?)

11. SUSCEPTIBLE

At what age do babies get caída de mollera?

12. PREVENTION

Can caída de mollera be prevented? How?

APPENDIX D

APPENDIX D

Sparta Health Center ..."care with caring"
475 SOUTH STATE STREET • SPARTA, MICHIGAN 49345 • (616) 887 8831

June 20, 1990

Michigan State University
College of Nursing
A230 Life Sciences
East Lansing, MI 48824

Dear Dr. R. Schiffman:

I understand that Patricia Darling will be conducting research with Hispanic migrant farmworkers as a part of her course requirements for the Masters Program in Nursing at Michigan State University. Patricia has explained to me the nature of the research study and the time commitment which it will involve.

Patricia is employed as a Local Program Coordinator for the Sparta Camp Health Aide Program this year. While conducting research is not within her job description as a Local Program Coordinator, it is a natural extension of Sparta Health Center's interest in identifying and meeting the health needs of migrant farmworkers.

Although Patricia's position affords her exposure to the population she is researching, she realizes the data collection is independent from her remunerated duties.

Sincerely,

Cheryl A. Johnson
Migrant Program Coordinator

APPENDIX E

APPENDIX E

October 18, 1990

Dr. Rachel Schiffman
College of Nursing
Michigan State University

Dear Dr. Schiffman,

The interview tapes between Pat Darling, two translators, and her informants were listened to in their entirety. The accuracy of the translation was found to be sufficiently correct in intent and meaning to allow Ms. Darling to obtain very good data on caida de mollera. The information Pat collected on this illness reported among the Mexican and Mexican American population is interesting and informative. Thank you for allowing us to play this very small role in her research project.

Best Regards,

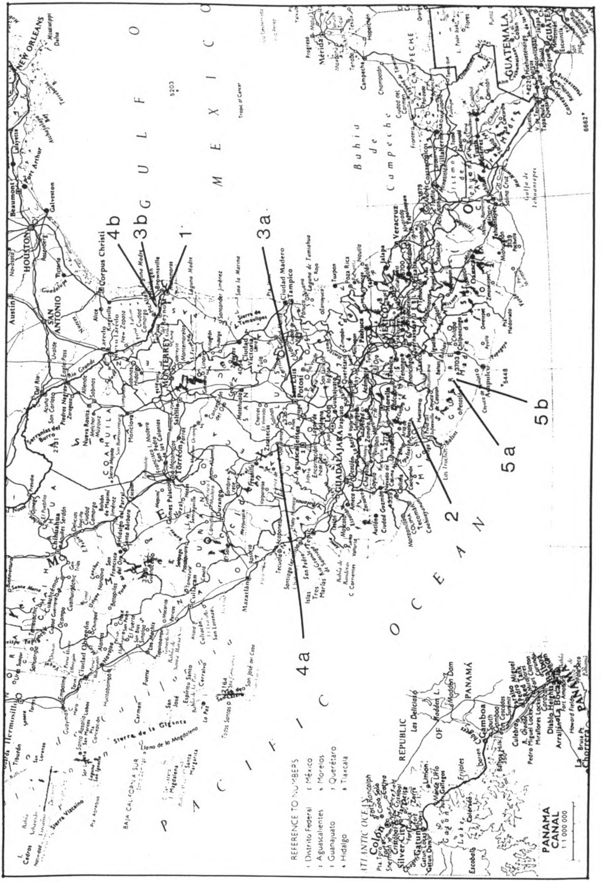
Professor Joseph Spielberg
Department of Anthropology

Melba Rosa Hinojosa

Melba Rosa Hinojosa, R.N.
Anthropology graduate student

mrh/JS

APPENDIX F


4b
3b
1
3a
4a
2
5a
5b
GULF OF MEXICO
PACIFIC OCEAN
REFERENCE TO NUMBERS
1 Distrito Federal
2 Aguascalientes
3 Guanajuato
4 Hidalgo
5 México
6 Morelos
7 Querétaro
8 Tlaxcala
PANAMA CANAL
GUATEMALA
NEW ORLEANS
HOUSTON
SAN ANTONIO
MONTERREY
GUADALAJARA
Veracruz
Tampico
Chihuahua