The objective of the study was to evaluate the structure, development and functionality of the family that suffers from arterial hypertension. This is a qualitative study, developed with two families using the Calgary Model of Family Evaluation. It proposes the use of three categories of analysis: structural, developmental and functional, and the use of a genogram and an ecomap. The two families are nuclear, however one is formed by the couple and their three sons who are married and reside in different homes. The other is a single-parent family established by the mother and children. The married son resides at another house in the same backyard with wife and daughter. The application of the model of family evaluation allowed knowing the aspects related to the structure, operation and development of the two families that interfere impair or favor the development of the care in their quotidian.

INTRODUCTION

The family is the main caregiver of its members, both in situations of health and disease, and its importance has been related to greater adherence to treatment by individuals with some health problem, especially when the person concerned is included as a participant in the health-disease process, since he/she makes a substantial contribution to health promotion\(^{(1)}\).

The impact disease has on the family environment and the ways of coping are specific for each family, which has its own beliefs, histories and routines\(^{(2)}\). In view of this context, we opted to use the Calgary Family Assessment Model (CFAM), which made it possible to gain a broader view of the family, which included its internal and external relationships, strengths and weaknesses\(^{(3)}\). The CFAM is a multidimensional structure constituted of three main categories: structural, developmental and functional, and their various sub-categories\(^{(4)}\), which allow information to be gathered to support and direct care of the family\(^{(5)}\). In the application of the model, it is not necessary to make an evaluation of all the categories simultaneously, nor do all the sub-categories need to be evaluated\(^{(4)}\). Its use makes it easier to understand how the family functions in an interactional manner, and this in turn makes it possible to evaluate its members and observe the alterations in its dynamics\(^{(4)}\).

In spite of this, in Brazil, little use has been made of the CFAM in families of adults with chronic conditions, and it has mostly been used in researches with children, adolescents, the elderly and in the field of mental health. The use of this model allows the nurse to know the family in its context and identify its needs, as well as the specific alternatives for care of its condition. In view of the foregoing, the following question arose: what is the structure of the family of adults with arterial hypertension, and how does it function, since this is one of the most frequent non transmittable chronic diseases in our medium? To answer the question, the aim of the study was defined as evaluation of the social support networks available and the use of these by the family\(^{(6)}\). It is dynamic, because it shows the absence or presence of social, cultural and economic resources at a certain time in the family life cycle, which may change during the course of time\(^{(6)}\).

The developmental evaluation seeks to identify and understand, by means of stages, at which moment family members deal with arterial hypertension, resi-
time in the life cycle the family is situated, and emphasizes the exclusive trajectory constructed by the family, and it is modeled by predictable and unpredictable events, such as diseases, catastrophes and social trends(4).

Whereas, the functional evaluation deals with the details of how the individuals in the family behave towards one another, against the basic aspects of family functioning. This evaluation involves two basic aspects: instrumental functioning refers to daily life activities; and expressive functioning refers to nine sub-categories: emotional, verbal, non verbal and circular communication, problem solving, roles, influence and power, beliefs, alliances and unions(4).

The data with reference to the evaluations of the developmental and functional categories were obtained during the interviews held. The data were collected in the month of November 2011, in the families’ homes, by means of four interviews with each of the families. The interviews were held with two members of the family; that is, the individual with arterial hypertension and her husband in Family 1, and the member with the chronic condition and her granddaughter in Family 2.

The aim of the first interview was to present the ethical and legal aspects of conducting the research, and invite them to participate in it, and to hold the semi-structured interview. In the second visit, the genogram and echomap were constructed with the active participation of the family. In the third and fourth visits discussions were held and considerations made about the genogram and echomap, and specific guidance provided for each situation experienced by the family. Two post-graduate student nurses participated in all the visits.

The study was developed in conformity with the ethical precepts ruled by Resolution 196/96 of the National Health Council, and the project was approved by the Permanent Ethics Committee on Research with Human Beings of the State University of Maringá (Report No. 622/2011). To preserve the identity of the family members they were identified by fictitious names of flowers.

RESULTS AND DISCUSSION

Evaluation of Family 1

The structural evaluation of Family 1 identified it as being of the nuclear type composed of Amarílis and Jacinto. Amarílis is a 59-year-old housewife, and lives with her husband only in a large brick house, with a large yard and garden well cared for by her husband. Jacinto is a 62-year-old retired businessman. The couple had five children, of whom two died soon after birth (one 45 minutes after being born, and the other when it was 11 days old). Their eldest son is 38 years old, married, has two small children, is a businessman (works with his father) and lives in the same suburb as Amarílis and Jacinto. One of their daughters is 31 years old, has a biologic science degree, but works as a banker in the city of Curitiba, is married and has a three-year-old child. Although they live far from their parents, the affective tie between them is very strong. Their youngest daughter is 30 years old, lives with her husband in Florianópolis, has a degree in pedagogy, works as a secretary at a school, and at present is doing a design course at the university.

The genogram (Figure 1) and echomap (Figure 2) presented were constructed in conjunction with Amarílis and her husband Jacinto.

With regard to the developmental category, we identified that Amarílis presents the diagnosis of Arterial Hypertension, Rheumatoid Arthritis, Bronchitis and Hypothyroidism. Her follow-up is made by means of a private health insurance plan. She affirmed that she correctly follows all the health professional’s instructions about the care of her chronic condition, however, she reported that provide little guidance. She reported that she uses various medications continuously, and takes care to take these at the correct times; reported that she follows a healthy diet. During all the visits her arterial pressure was measured, and it was always within the parameters of normality. Two years ago she presented symptoms of Cerebral Vascular Accident and had cardiac catheterization performed. She has a high socioeconomic level, which allows her to perform diversified activities, with a view to improving her quality of life, such as for example, hydrogymnastics (interrupted three months ago, due to worsened bronchitis) and Pilates performed during one year, but stopped due to a knee lesion. At present she goes for daily walks.

Amarílis reported that during the last twelve months she was hospitalized six times due to the following causes: urinary tract infections (UTI) three times, febrile convulsion, surgical procedure...
Figure 1 – Genogram of Family 1. Paiçandu, PR, 2011.

Figure 2 - Echomap of Family 1. Paiçandu, PR, 2011.
for cystocele correction and post rachimedular anesthesia headache. During the home visits she was making use of antibiotic therapy for treatment of UTI. In spite of all the complications with reference to her health, she manages to maintain a good quality of life.

Jacinto also has arterial hypertension and bronchitis, and is regularly followed-up by the doctor of the private medical insurance plan. Neither of the two use the primary health care unit (Unidade Básica de Saúde - UBS) services. During the period when the visits were made, Amarílis and Jacinto were using a powder for the treatment of Bronchitis, which has to be diluted in boiling water, and which was bought from an independent vendor. They did not know the composition of the powder, and that is why we sent it for chemical analysis at the University.

By evaluating the functional category it was found that Amarílis plays the role of wife, housewife, friend and partner of her companion, to whom she has been married for 40 years. The relationship with her husband is one of affection, mutual help and concern for one another. In her reports, she always demonstrates in a loving and affectionate manner that she has a good relationship with their three children, sons-in-law and grandchildren. However, in some moments she reported that there was a conflicting relationship with her daughter-in-law, because her daughter-in-law is jealous of her relationship with Alecrim. He is the son of a neighbor (Acácia), with whom Amarílis maintains a strong relationship, and who is the first person she seeks in situations of stress. Alecrim is four years old and spend a good part of the day at the couple’s house, who consider him to be a grandson and they are always prepared to receive him happily. She also has a very good relationship with Jacinto’s youngest sister, who she thinks of as a daughter.

In spite of a chronic condition, Amarílis is very dynamic, always participates in leisure activities with the family and friends, such as going fishing, traveling with her husband to visit her daughters, bingos and social gatherings she holds at her house. The relatively low impact of hypertension on Amarílis’s life may be explained by good adaptation to the conditions of the disease, or by the adoption of adequate behaviors to a new life-style(10). During the meetings with Amarílis, she demonstrated that she had a very strong relationship with God, who was described as her spiritual confidant at all times, both in joy and sorrow. She is a Catholic, goes to mass, but does not like to participate in the Church’s community events.

When she was asked about the concept of health and changes that had occurred in her life, Amarílis reported that to her health means having disposition and enthusiasm to perform all her activities, and that she always reacts very well to the changes that have occurred in her life, endeavoring to face and overcome them, irrespective of whether they are positive or negative. From this report, it was possible to understand that even when faced with a chronic disease, the individual can maintain a harmonious relationship with his/her environment, feel healthy and maintain the quality of life, since the absence of symptoms make the disease imperceptible(10). From this understanding, one can establish the chronic disease as a chronic situation in the process of living and be healthy. By understanding health as an asset of great value, one expects the human being to be committed to preserving it, and have a positive view of the disease, facing it as a natural happening of life that brings benefits to the patient and family, thus reducing the emotional stress that accompanies it(13).

Evaluation of Family 2

The structural evaluation of Family 2 identified it as being of the monoparental type composed of Rosa and her son Cravo. Rosa is 52 years old, has been retired for seven years due to being an invalid as a result of sequelae after a Cerebral Vascular Accident (CVA). She was married for approximately 19 years and has been separated for 15 years. Two sons resulted from this union; Cravo, the youngest is 30 years old, single and works as an upholsterer. Her eldest son is 34, is married, has an 11-year-old daughter and lives in a house in the same yard as Rosa. The genogram (Figure 3) and echomap (Figure 4) of Family 2 were constructed with Rosas help.

In the developmental category, we identified that Rosa has been hypertensive for approximately 10 years, and seven years ago (at 45 years of age) she suffered two CVAs, which left neurological sequelae, with loss of voluntary control of motor movements, hemiparesis and weakness on the right side of the body, involuntary movements of the head and neck, conjugate eye deviation, short...
Figure 3 - Genogram of Family 2. Paiçandu, PR, 2011.

Figure 4 - Echomap of Family 2. Paiçandu, PR, 2011.
Rosa has difficulty in expressing her feelings and looks sad and lonely. When asked about her understanding of health and being healthy, she was unable to talk about any of the two terms. However, the understanding of health could ameliorate the impact caused by the disease, favoring the adoption of practical attitudes and control of the situation.

To care for her health she uses the National Health Service ("Sistema Único de Saúde-SUS"), and reported receiving visits from the community health agent ("Agente Comunitária de Saúde-ACS"). Nevertheless, she frequents the Primary Care Unit only to collect the medications for continuous use, because she has difficulty in buying the medications that are not provided by SUS. She reported that she did not participate in the HiperDia meetings very frequently, because in the majority of times it was Margarida who fetched her medications.

Reflecting about the conditions of the two families, and considering that in order to evaluate a family, it is necessary for the professional to examine its structure, and who forms part of it; we found that the two families of the study, although nuclear, presented differentiated structures when the place of residence of the descendants was considered. Amarilis’s family is at present constituted by the couple only, because their three children have constituted their own families and reside in different places. In turn, Rosa’s family is of the monoparental type, constituted of her and her youngest son who is still single.

When the conditions of health of the two families were compared, we identified that Amarilis and Jacinto presented greater concern about health, characterized by the adoption of healthy habits, and the better socioeconomic condition also made it possible to perform activities that favored taking care of health. It should be pointed out that the positive effects for health and well being are also related to a healthy environment, in its physical, psychological and social dimensions, which must provide resources for the promotion and maintenance of health.

In Rosa’s family we found various situations that do not favor the good conduct of the health disease process: a) the conflicting relationship with her granddaughter with whom she spends a good part of the day, b) difficulty in the organization of care, because Rosa stays at home alone the most of the time, remaining without social contact, c) absence
of leisure activities, d) inadequate diet, e) financial difficulties, f) unavailability of family members to accompany her on her therapeutic itinerary, g) inadequate control of arterial hypertension.

The family is an important link for one who experiences the situation of disease, since the support that it offers is an incentive to maintain treatment and the well being of its members. When comparing Rosa’s family with that of Amarílis, we showed that the family is hardly present, in spite of the need that everyone has to work. It was confirmed that the condition of disease and the existent sequelae were not sufficient to make the family members sensitive to the need for specific care. However, one expects the family to exercise the function of caring for its members by providing physical and emotional resources for maintaining health, and a system of support is indispensable.

Generally, chronic disease affects both the sick person and the whole family, so that maladaptations arise in its day to day functioning. However, in some cases it also enables an approximation among the family members, promoting re-structuring of their relationships. Thereby, the family creates a new form of living together, adapting themselves to the reality, making the sick person the focus of family attention. This way of living together and adapting to the new routine became evident in Amarílis’s family, since she pointed out that her daughters, although they lived far away, concerned themselves about her health and were always ready to help her with whatever was necessary. She mentioned, for example, that when she had a more serious health problem, her daughters organized themselves to accompany her during hospitalization and in the first days after she was discharged. Rosa, however, cannot count on this type of help. Her two sons and daughter-in-law work full time and have no time available to accompany her.

The tie is formed by means of links of affection and proximity that are almost always present in the manifestations of affection, feeling of love, desire to be together, respect and admiration, which transmit a feeling of well-being. We perceived that Rosa has no strong affective ties, not even with her family members, seeing that the contact between them is more distant, when compared with the situation existent in Amarílis’s family. Rosa stays alone the greater part of the day, although she has difficulties in performing important basic care task for the maintenance of her health. Perhaps it is for this reason that she maintains a dependence on cigarettes.

However, affective ties may be formed with someone with whom one does not have consanguineous links, as is the case of Margarida, Rosa’s neighbor and friend who, in addition to helping her with the housework, fetches her medications, accompanies her to the health services and keeps her company in the hours of sadness and difficulty. It is worth pointing out that each person reacts in a different way to the disease and that the ties are not established in an equal manner.

The sick person’s main sources of support are its family members, but the social network formed of persons that may support the sick person, such as friends and neighbors, is also pointed out as being fundamental and indispensable for overcoming difficulties. In the case of Rosa’s family the professionals should know that Margarida is an important ally, who should be appreciated and instrumentalized in order to act in a more effective manner. She could, for example, be guided in supervising, even at a distance, in supervising the use of medications, and also encourage Rosa to engage in some leisure activity and stop smoking, or at least reduce the number of cigarettes per day. In the case of Amarílis, her husband is the person that develops the role of ally of the health professionals.

Amarílis also counts on other help, faith and the belief in Divine force, which plays an important role in emotional balance, the acceptance of activities, provides strength to continue the battle and contributes towards strengthening of the family ties. Faith helps the individual to maintain hope and confidence that something can be done to help him/her, in addition to being a constructive manner of thinking. It is a feeling of confidence that whatever is desired will happen. Indeed, Faith in God is a feeling ingrained in our culture and is as necessary as the other ways of coping with a chronic condition.

The beliefs, behaviors learned and incorporated into social life consider the experiences of life the individual and family acquires in the process of ill-health and caring for themselves. Starting with this presupposition, the nurse needs to know and understand the family, accepting its experiences and mobilizing it to seek new knowledge and learning for the practice of care of a sick family member.
emphasizing the importance of starting with the needs and preferences of the individual and the family, and not of the professional\(^{(18)}\).

Therefore, it is worth pointing out to health professionals the need to be aware that care involves the being as a whole, including the family and familial relationships among its members, so that it is essential for the nurse to be inserted in this family context, seeking to qualify and humanize the care provided to each family\(^{(18)}\).

**FINAL CONSIDERATIONS**

The family evaluation guided by the Calgary Model allowed us to get to know the families and survey the main aspects of their structure, development and functioning. By means of the evaluation, it was possible to find some of the difficulties faced by the investigated families, particularly by Rosa’s family, in which the existence of a conflicting relationship was identified, in addition to difficulty in the organization of care, little social contact, absence of leisure activities, inadequate diet, financial difficulties and inadequate control of the hypertension. In this case, some guidance was provided as regards the importance of adequate diet, diminishing the use of tobacco, encouraging engagement in leisure activities and socialization, and adequate control of the arterial hypertension. Whereas Amarilis’s family was instructed with regard to taking care with the use of alternative medication without knowing its origin, and general care of arterial hypertension. The guidance served as support and help to the family to deal with the day to day difficulties.

The use of the genogram and ecomap tools allowed us to identify the key elements existent in the family and supporting network, on whom we could count to carry out, or even supervise or follow-up the care required for keeping the chronic condition under control.

The study also provided a reflection about the need for discussing the possibilities of effectuating care that focuses on education, with a view to promote a healthier family environment; and how important it is for professionals of the family health strategy to use the Calgary Family Assessment Model, to subsidize planning and implementation of the care to be adopted in the family’s day to day life, emphasizing that the care proposed cannot fail to take into consideration the existent resources and the context in which the family lives.

**REFERENCES**


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