

A FAMILY SYSTEMS NURSING APPROACH TO HYPERTENSION

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Abstract

This article focuses on a family systems nursing approach for essential hypertension. A case example is presented that describes the approach with a hypertensive woman with agoraphobia symptoms. A clinically significant decrease in the client's blood pressure occurred following the family sessions. Clinical observations of improved family relationships and symptom reduction corroborate research findings on the variables of perceived stress, anxiety levels and family coping resources. Interventions such as split-opinions, reframing, and rituals are described.

Résumé

Cet article met l'accent sur l'approche systémique en soins infirmier à la famille pour l'hypertension essentielle. L'étude de cas présentée décrit l'approche auprès d'une femme atteinte d'hypertension et ayant aussi des symptômes d'agoraphobie. Suite aux sessions avec la famille, une baisse clinique significative d'hypertension a été observée chez la cliente. Une amélioration des relations familiales et une baisse des symptômes ont été observées cliniquement, corroborant ainsi aux résultats de recherches traitant les variables suivantes: stress subjectif, niveau d'anxiété et ressources d'adaptation familiales. Les interventions suivantes sont décrites: présenter des opinions qui sont partagées, recadrer l'expérience de la famille et suggérer à la famille des rituels.

A Family Systems Nursing Approach To Hypertension

Hypertension is one of the greatest public health problems of our time due to its high morbidity rate. A multitude of biophysical and psychosocial factors have been identified as contributing to the development and maintenance of essential hypertension. Essential hypertension is a condition with no known single cause or cure. The potential benefits of combining psychosocial approaches with medical treatment have been suggested, but need further exploration. This article provides reflections on the connections among blood pressure levels, family dynamics, coping resources, and stress and anxiety levels. It explores the influence of family systems nursing on individuals and families experiencing difficulties with hypertension.

The multiple factors attributed to the development of hypertension contribute to the difficulty in discovering a cure. In spite of the many advances in the pharmacological treatment of hypertension and some success in decreasing the morbidity, there is a great deal of controversy regarding the most appropriate treatment for essential hypertension. There is increasing support in the literature that psychosocial factors play an important role in the development and maintenance of essential hypertension (e.g., Brody, 1980; Shapiro, 1979; Wadden, 1983; Weiner, 1979). Research studies have supported the hypothesis that emotional stress, anxiety, unexpressed anger and hostility are etiological factors related to essential hypertension (Dembrosky, MacDougall, Wil-

liams, Haney & Blumenthal, 1985; Dimsdale, Pierce, & Schoenfeld, 1986). Dressler (1982; 1986) found higher levels of social support and social interaction to be related to lower arterial blood pressure. Other research findings revealed that high marital adjustment scores were significantly correlated with less obesity, lower frequency of forgetting blood pressure medication and improved compliance to blood pressure medicine (Trevino, Young, Groff, & Jono, 1990).

There is also growing evidence of a reciprocal relationship among physical illness, family dynamics, and family support (Doherty & Campbell, 1988; Livsey, 1972; Meissner, 1966; Peck, 1975). Family support has been shown to be an effective adjunct treatment for achieving control of hypertension (Levine, Green, & Deeds, 1979). However, very little research has examined the influence of family interventions on the blood pressure of an hypertensive patient. A few case studies have shown the positive effect of marital therapy on essential hypertension (Ewart, Burnett, & Taylor, 1983; Summers, 1978). More research is needed to develop a better understanding of the relationship between essential hypertension and family functioning, and to develop psychosocial interventions to alleviate the problems associated with hypertension (Brody, 1980; Bahnson, Blossom, Riggs, & Berquist, 1984).

Family systems nursing has previously been successful with families experiencing difficulties with health problems (Watson & Nanchoff-Glatt, 1990; Watson, Wright & Bell, 1992; Wright, Bell & Rock, 1989; Wright & Simpson, 1991; Wright & Watson, 1988). Family systems nursing is the integration of nursing, systems, cybernetics and family therapy theories (Wright & Leahy, 1990). This approach aims to reduce stress and anxiety levels in family members by improving their interpersonal relationships in order that they become a source of social support rather than a source of stress and anxiety.

In the following case example, a family with a mother diagnosed with essential hypertension participated in five family systems nursing sessions as an adjunct treatment to the medical approach. The family sessions were offered by a clinical nursing team of two nurse educators who were experienced family therapists. One conducted the family interview while the other also participated in the therapy from behind a one-way mirror. All family interviews were conducted at the Family Nursing Unit, Faculty of Nursing, University of Calgary (Wright, Watson, & Bell, 1990).

Case Example

Hazel, an hypertensive woman was referred to the Family Nursing Unit by her family physician because he

believed that in addition to smoking and obesity, emotional factors were contributing to Hazel's hypertension. Hazel believed she had agoraphobia and was eager to determine if there was a link between her agoraphobia and her hypertension.

Family structure

The nuclear family was composed of Hazel*, a 45-year-old receptionist and her two children: Martin, a 21-year-old student and ski instructor who lived at home and Michelle, aged 24, who was married with two children. Hazel had been separated from her husband, Frank, for two years. According to Hazel, pressures related to the bankruptcy of their family business had overstressed the tenuous connection of their 24 year marriage. Hazel's mother, 67 years of age, was also hypertensive. Hazel's father died of cancer two weeks prior to the first interview. Hazel had one living sister, Martha aged 40, who was married and also had two children.

Health information and beliefs about illness

Hazel was 5'2" tall, weighed 185 pounds and perceived herself to be 25 pounds overweight. She was diagnosed 13 years previous with essential hypertension by her family physician following a "panic attack" (which Hazel thought to be a heart attack) that occurred around the death of her younger sister Myriam. Hazel felt very guilty about Myriam's death, believing that she should have died instead of Myriam who was "the most talented and appreciated by our mother." Hazel's physician told her that her symptoms (e.g., tightness in the body, heart palpitations, shaky knees, feeling rise in blood pressure) were similar to agoraphobia. Hazel also believed that she "had agoraphobia" because her symptoms corresponded to literature she had read on the topic. According to Hazel, her fear of having an attack and dying was worse than an actual attack. She believed that her fear of having an attack was "destroying her life" by preventing her from (a) socializing because she was afraid of leaving her home, and (b) doing exercises to lose excess weight which she believed contributed to her hypertension.

Hazel's previous efforts to overcome her agoraphobia included consulting with her family physician, several psychiatrists, and herbalists. She followed some of their recommendations (relaxation exercises) and took prescribed medication (Valium 2- to 4- mgms a day and 6- mgms before efforts to leaving the house).

* Actual family names have been changed to preserve anonymity.

For her hypertension, Hazel took Diazide (a diuretic) twice daily and restricted her salt intake. During visits to the family physician, Hazel's blood pressure usually registered between 160/110 and 150/100. Hazel's physician believed that medication would be a lifelong requirement to control Hazel's hypertension.

Family systems nursing assessment and interventions

Hazel's family participated in five family systems nursing sessions over a 4-month period. A follow-up session was held 3 months following termination of the family sessions. Hazel attended the first session by herself. Martha, her sister, accompanied Hazel for the three following sessions and Martin joined Hazel the final session.

Session one

During the first session, the "vicious cycle" between her hypertension and agoraphobic symptoms was explored as were the beliefs about the etiology of her agoraphobia. She believed her agoraphobia was caused by the stress of (a) ongoing conflict with her mother, (b) her unstable and inadequate financial situation, and (c) not having a male companion in her life. She acknowledged relying a great deal on her sister and her son for help to cope with her stress and problems.

A systemic view of Hazel's situation connected the several variables highlighting the reciprocity between them: Hazel's conflictual relationship with her mother invited her to feel guilty and to withdraw from her "British mother who never showed warmth." However, Hazel's need for her mother's approval and her concern for her mother persisted making her feel more guilty that the relationship was tenuous. Her agoraphobia prevented Hazel from updating her education, securing a "more enriching job" for now and a pension plan for the future, and escalated the financial stress. In turn the financial stress aggravated her agoraphobia. Hazel was very forthright in declaring that the stress of "having no man" in her life impacted on her relationship with her son: "If I don't find a man, I will have to hang onto my son longer." When the nurse-therapist asked Hazel what would be the smallest amount of change that would indicate she was making progress, Hazel responded that if she could walk to work, exercise, and lose weight she would be very satisfied.

At the end of the first session, the clinical team:

- commended Hazel for her tenacity in seeking help for her agoraphobia
- validated Hazel's hypothesis that her agoraphobia may be contributing to her hypertension
- told Hazel that she was not crazy or neurotic (labels/diagnoses Hazel had been previously given by

health care professionals when discussing her agoraphobia problems)

- offered their view of Hazel as a strong-willed and creative woman
- invited Hazel to use her creative writing ability to write an essay entitled, "*My experience as an agoraphobic walking to work.*"

To be able to write the essay Hazel would need to observe details of a walk to work (to this point she was unable to walk to work), noticing particular points along the path that were more stressful than others. The intent of this assignment was to take the focus off the problem that she couldn't walk to work, distracting her attention from her fears of having "a panic attack" and move Hazel's attention toward how she felt when she was actually accomplishing that which she believed she couldn't do.

Session two

Hazel attended the second session with her sister, Martha. She was eager to report she had completed the assignment of session one! Her essay described how she had taken "Valium" before she left home and how she had resisted many temptations to avoid the walk. Hazel and Martha discussed the loss of their father and their relationships with their mother. Hazel believed visits to her mother made her blood pressure increase. Hazel expressed a great desire to have her mother come to a family session. When asked, "What would you most want to say to your mother if she were to attend?" Hazel said she would tell her mother she needed more love from her.

At the end of the second session, the following interventions/opinions were offered by the clinical team:

- The sister's grieving for her father was validated.
- Hazel was told that the team was very interested in the connection she (Hazel) made between her blood pressure and her relationship with her mother and therefore asked Hazel to try an experiment: In the presence of her mother she should "pretend" that she was overcoming her agoraphobia and would say to her mother at least three times a week, "I think I am gaining control over my agoraphobia. I am trying to be more strong willed." The experiment embedded the suggestion that Hazel could gain control over her symptoms. The word "pretend" was used to engage Hazel in the experiment. The experiment was also aimed at inviting a different response from Hazel's mother which could create a change in the mother-daughter relationship.
- Martha was told that she should be a "back-up to Hazel" and make the same statement about Hazel and her agoraphobia when talking about Hazel to her mother. Each daughter was to note their mother's reaction. By focusing the daughters' attention on their mother's response to their new and different

behaviors, the focus is taken off the daughters observing themselves (stage fright syndrome).

- Hazel was asked to write an essay entitled "My Mother and Agoraphobia" to gather a more thorough description of the mother-daughter relationship with agoraphobia.
- It was suggested that Mother be invited to the next session. Both daughters indicated that the nurse-therapist should extend the invitation to their mother. When Hazel stood up to leave the session, she casually reported that she had not experienced any signs of agoraphobia when she had taken the bus or when she walked eight blocks to visit her mother!

Session three

Prior to session three the nurse-therapist contacted Hazel's mother to invite her to a therapy session to assist her daughter with her problem. Hazel's mother refused the invitation stating she did not want to be involved in her daughter's problems at that time. Session three was held 2 weeks after session two. Hazel and Martha were present for this session.

Between session two and three, Hazel's mean blood pressure was 123/84 with a SD of 4/5. There was a clinically significant decrease (more than 6 mmHg) in the mean systolic blood pressure in comparison with the mean systolic blood pressure level between sessions one and two. Hazel reported that she had again visited her family physician and her blood pressure was 150/90. She noted that her blood pressure was always higher at the physician's office.

Hazel had not written the essay entitled "My Mother and Agoraphobia." She explained she would have felt too guilty about the things she would have written about her mother. However, she had completed the experiment once of saying to her mother that she was overcoming her agoraphobia. Her mother's response was to change the subject.

Hazel believed her mother was preoccupied by the grief of her husband's death. Martha acknowledged that their mother was still grieving their father the most. The two daughters reported having grieved the most the month preceding his death. Hazel believed her father would have responded to her agoraphobia more empathically than her mother and would have understood her not visiting him at the hospital because of her condition. Martha reported that their father inquired about Hazel's problem but did not know that it was agoraphobia. Hazel said she felt relieved when her father died because she could not tolerate him suffering.

The therapist asked Hazel if her agoraphobia helped her to alleviate the pain of grieving her father. Hazel confirmed this hypothesis and said that her agoraphobia provided a "layer of protection" and isolated her from

pain. She then reported that her agoraphobia was better. She was very proud to report that since the last session she had gone to the ballet and a restaurant with friends.

The following opinions and ideas were offered:

- The nurse-therapist positively connoted Hazel's agoraphobia as a protective layer which guarded against the pain of many losses: her sister, husband, father, money, and possibly the loss of a more positive relationship with mother.
- Agoraphobia was framed as a "friend" that protected Hazel from more potentially detrimental effects that her losses could have had on her health and as a diversion from the pain of the multiple losses. The nurse-therapist indicated it was a mistake for professionals to eliminate Hazel's agoraphobia until she found another way of coping with her multiple losses, pointing out that even the medication Hazel took for her agoraphobia "numbs her against the pain of the losses."

The intervention embedded volition suggesting that Hazel could take control over her agoraphobia when she decided to change her self-protecting and coping strategies. The other intent was to give Hazel a different view of agoraphobia, decreasing her fear of agoraphobia, and alleviating tension.

Session four

This session was held 2 weeks later. Hazel and her son, Martin, attended. The impact of agoraphobia on his mother's life was explored from Martin's perspective. He saw agoraphobia as inhibiting Hazel's social life and her ability to be independent. Hazel retorted that she had gone to the theater during the past week and had started to walk to work more often !!

Martin was most concerned about his mother's future, her happiness, and her financial security. Hazel's ability to live alone was of great concern to both Martin and Hazel. Hazel said she would not live on her own. A persistent fear that she might die from a panic attack gripped her life. The fear was so great that Hazel said she may have to move in with her mother, when Martin leaves home.

Hazel was intrigued with the therapeutic opinion offered at the end of session three. She said she felt the nurse had put her in a bind by saying that since her agoraphobia was "a protection" she should not get rid of it because its absence may be more detrimental to her health until she found other ways to handle the pain of her many losses. However, she also did not want to live with the consequences of her agoraphobia.

At the end of session four, these interventions were put forward by the clinical team:

- Hazel was commended for her reaction to the end-of-session intervention of the last session. Her reaction had precipitated a change in view by the clinical team. While both nurses' positions on Hazel's agoraphobia had shifted, they did not agree with each other.
- Hazel was offered the following split-opinion: the nurse-interviewer who had previously thought that life could only begin with agoraphobia, because it was protecting her from emotional pain, now believed that life could only really begin for Hazel when she gave up her agoraphobia; she believed she could help Hazel the most by assisting her to give up agoraphobia. However, the observing clinical nursing team member disagreed with this position. This team member had the opinion that it was premature for Hazel to give up her agoraphobia at this time because her agoraphobia kept her connected with friends and family.
- Hazel was offered the following odd-day/even-day ritual (Selvini Pallazzoli, 1978) for the next two weeks: On Mondays, Wednesdays, and Fridays, Hazel was to do something spontaneous, and unusual — something that she did not usually do because of her agoraphobia. On Tuesdays, Thursdays, and Saturdays, Hazel should tell one family member or friend one thing about her agoraphobia that they did not know.
- Martin was asked to observe his mother's behaviors on the different days to see which team member's opinion was most useful at this time.

The split-opinion and odd-day/even day ritual interventions aimed at providing support to Hazel by validating her need to be free of her agoraphobic symptoms while challenging her about the use of symptoms to keep other people involved in her life.

Session five

Hazel and Martha attended session five four weeks later. This session commenced with a discussion about the agreements and disagreements with the team's opinions offered at the end of session four. While Martha agreed with the opinion that Hazel's agoraphobia connected her with other people, Hazel did not agree, declaring that she was an independent person. Martha challenged Hazel's belief, claiming that Hazel had never been an independent person. Hazel disagreed with her sister, pointing out that just since the session four she had attended a fashion show, taken the bus a few times, gone out with her aunt, visited her mother, and walked to work!! Martha believed that at this time, Hazel's agoraphobia was "resolving itself."

The clinical team hypothesized that Hazel's agoraphobia provided a functional balance in her life and at

this point "problems" had moved to the level of manageable "difficulties of daily living." It was hypothesized that since Hazel had improved her level of functioning (e.g., showing more independence) the remaining agoraphobic symptoms served a positive function of keeping family members emotionally close in Hazel's life.

Based on the above hypotheses, the following family systems nursing interventions were offered:

- Hazel was commended for the support she had provided each team members' divergent opinions by her actions since the last session. She has taken measures to give up agoraphobia (e.g., walked to work, took the bus, shopped, and visited her mother). And she had been able to have two agoraphobic attacks that connected her with her son. These two attacks allowed mother and son to show caring for each other (Hazel had been concerned/worried about Martin's concern/worry for her).
- The progress Hazel had made was highlighted.

The clinical family systems nursing team expressed their current dilemma that while they enjoyed working with Hazel and her family, they had to resist the impulse to work with them any longer: "When we started working with you, you had two initial problems, hypertension and agoraphobia. At that time they were problems but they have now become difficulties of daily living that you can handle." Hazel agreed with the team stating, "I was going to tell you that we couldn't go any further. I have got as much as I can from these sessions. You have been a lot of help." The nurse-therapist responded, "You will face anxious situations, you will get angry and you will do agoraphobia." Hazel answered, "Why can't I just scream and yell?" The nurse replied, "It's not your style, your style is agoraphobia."

The intervention aimed at supporting Hazel in her efforts to show that she was independent. By normalizing the problems and reframing them as "difficulties of daily living," the therapist hoped that it would increase Hazel's confidence in managing her problems. If the family sessions were to continue, Hazel might perceive that her problems were serious enough to solicit more family support through agoraphobia or hypertension.

Family's evaluation of the family systems nursing sessions

Three months after termination of the family sessions, each family member was interviewed individually by a family clinical nurse specialist who had not participated in the family sessions. The goal of the interview was to assess perceptions of the interview process and of the changes in family dynamics.

In this follow-up interview, Hazel reported that the family systems nursing sessions helped her to ventilate

unexpressed tension. She also acknowledged that she was much less anxious because her blood pressure had decreased. Hazel reported that the sessions allowed her son and her sister to acquire a better understanding of her agoraphobia. Hazel claimed that the sessions assisted her in understanding that stress leads to agoraphobic symptoms which in turn can lead to hypertension. She stated that her life was a lot better now that her agoraphobia "had disappeared for the first time in 13 years!" Hazel continued to take her blood pressure twice daily. It had stabilized between 125/80 and 110/70. Because her blood pressure remained low at home and increased only at the physician's office, Hazel decided to ask her physician to decrease the medication. When her physician refused, Hazel consulted another physician who co-determined with her to decrease the Diazide to one daily. Hazel was delighted.

Martin claimed the family systems nursing sessions helped him acquire a better understanding of agoraphobia and enhanced his relationship with his mother. He reported seeing his mother experience an increase in well-being, and a state of being more comfortable and at ease with herself. He claimed that she previously did not have any outlet for her anger but now she was expressing it! Martin reported that he was now more comfortable when away from his mother and worried less about her.

Martha reported that the family systems nursing sessions were helpful in giving Hazel and her an opportunity to learn about each other's opinions and feelings and to discuss problems in the presence of a mediator. She noticed that Hazel was feeling better about herself and that their mother had a better understanding of Hazel. Martha reported that she, herself, had benefited the most from the sessions because she had learned different ways of approaching her own children. (This is an incredible report as no discussion of this nature had ever overtly transpired.)

Research Findings

Self-report measures were administered to the client to enhance the clinical observations. Based on a single-case design (Kazdin, 1982) continuous assessment of measures of perceived stress, anxiety, coping resources, and blood pressure levels were made before, during and after the intervention to allow a comparison among these three phases.

The self-report instruments utilized were these:

1. The Perceived Stress Scale (PSS) (Cohen, Kamark & Mermelstein, 1983) which measures the degree to which life events are appraised as stressful to individuals. This scale can be used to determine whether "appraised" stress is an etiological factor in behavioral problems or disease.

2. The Institute for Personality and Ability Testing Anxiety Scale (IPAT) (Cattell & Scheier, 1963) which measures anxiety that is sensitive to change over time and to conditions. IPAT's items are divided into two categories: (a) overt, symptomatic, and conscious anxiety; and (b) more covert hidden-purpose cryptic probes.
3. The Family Coping Strategies (F-COPES) (Olson et al., 1985) which identifies the coping strategies and resources available to a family facing problems or stressful events.

Each of the self-report instruments were administered to the client twice at one-month intervals before the family systems intervention, and monthly during and 3 months after the intervention. The client was taught how to accurately take her own blood pressure. She was instructed to take her blood pressure at the same time each day, due to the possibility of fluctuation arising from differing daily activities.

The responses to the research instruments were analyzed as follows:

1. The blood pressure readings and the results of the self-report questionnaires were plotted on graphs and examined through visual inspection.
2. Box-Jenkin's time series analyses (1976) determined trends in the fluctuation of the blood pressure levels and assessed the significance of differences in these levels across the three phases of the study.
3. A median blood pressure reading was calculated for every 10 blood pressure readings taken during the study. The median was used for the analysis rather than the mean because "extremes" in the blood pressure fluctuation could bias the results.
4. To facilitate the interpretation of changes in blood pressure levels, the researcher used Luborsky's and colleagues' (1982) criterion of 6 mmHg to indicate a significant clinical increase or decrease in the blood pressure.

Analysis of the blood pressure readings

Time series analysis and a visual inspection indicated that the systolic blood pressure fluctuated above the baseline level during the period of family systems nursing sessions (most specifically after sessions two and four) and returned to baseline levels during the three months following treatment. However, the diastolic blood pressure fluctuated during the baseline phase and during treatment but stabilized at 10 mmHg below the initial blood pressure level (in the baseline period) during the 3 months following therapy. The blood pressure medians for every 10 days of the study are represented on a graph (see Figure 1, p. 20). Six months after the sessions, the blood pressure levels had decreased more than 6 mmHg from which is clinically significant.

The results of the time-series analysis on the blood pressure indicated that, for the systolic blood pressure, the first median in the treatment phase was higher than during the other phases of the study. For the diastolic blood pressure, there was no difference in the medians between all three phases.

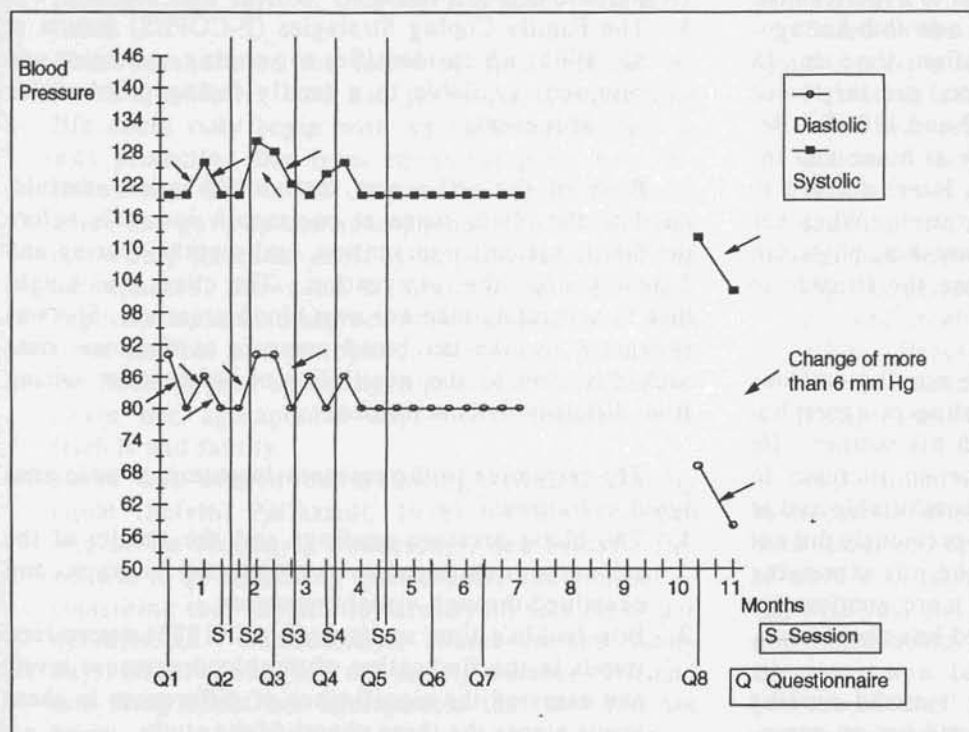


Figure 1. Hazel's blood pressure medians for every 10 days

Analysis of perceived stress

A visual inspection of the results of the PSS questionnaire for the period of the study (see Figure 2) indicates that Hazel's PSS score was highest during treatment, specifically during the first month. The PSS scores gradually decreased over the next 5 months. Hazel's PSS scores and blood pressure levels increased between the second and third session. However, her PSS scores continued to decrease after the third session while her blood pressure increased again between sessions four and five. After the family systems nursing sessions, the PSS scores continued to decrease except for an increase in the seventh month. Her PSS scores decreased below the baseline level 6 months after treatment which corresponded with a decrease in her blood pressure levels.

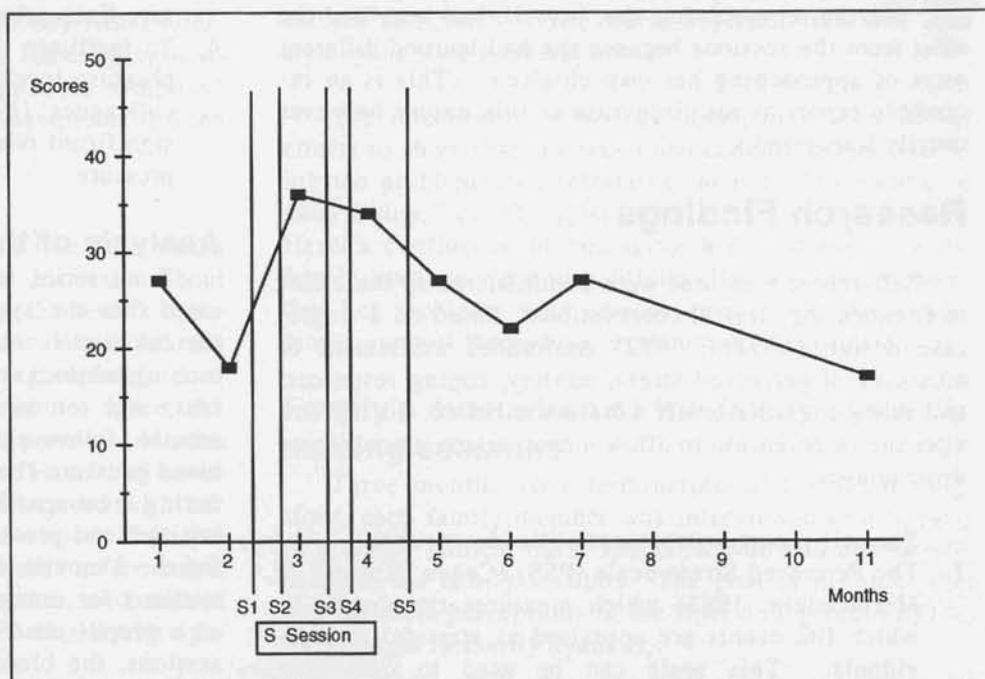


Figure 2. Hazel's results on Perceived Stress Scale questionnaire.

Analysis of anxiety levels

The total scores on the IPAT anxiety scale followed a trend similar to that of the PSS scores over the months: Hazel's anxiety level increased during the initial period of treatment and decreased during the follow-up phase (see Figure 3). The anxiety scale measures the covert and overt anxiety levels. For Hazel, the "covert" anxiety scores remained quite stable and lower than the "overt" anxiety scores which followed a trend parallel to the total scores. Comparing the norms table developed for this instrument, to Hazel's scores, she experienced an "average degree of anxiety" during the baseline phase. Her anxiety increased to "borderline high" during the first month of treatment and decreased to an average degree of anxiety equal to the baseline phase during the follow-up period. Her level of frustration, also measured by the IPAT anxiety scale, increased during the sessions and decreased during the follow-up period.

In comparison to the blood pressure and PSS results, the graph portraying Hazel's anxiety levels shows increases between sessions two and three and decreases paralleling those of her blood pressure levels and PSS scores. Between sessions four and five,

her anxiety levels increased slightly again as did her blood pressure levels, while her PSS scores decreased. Three months after treatment, the anxiety scores decreased below the baseline level as did the diastolic blood pressure. Six months later, the "overt" anxiety and frustration level scores decreased again. The blood pressure also decreased below the baseline levels at this time.

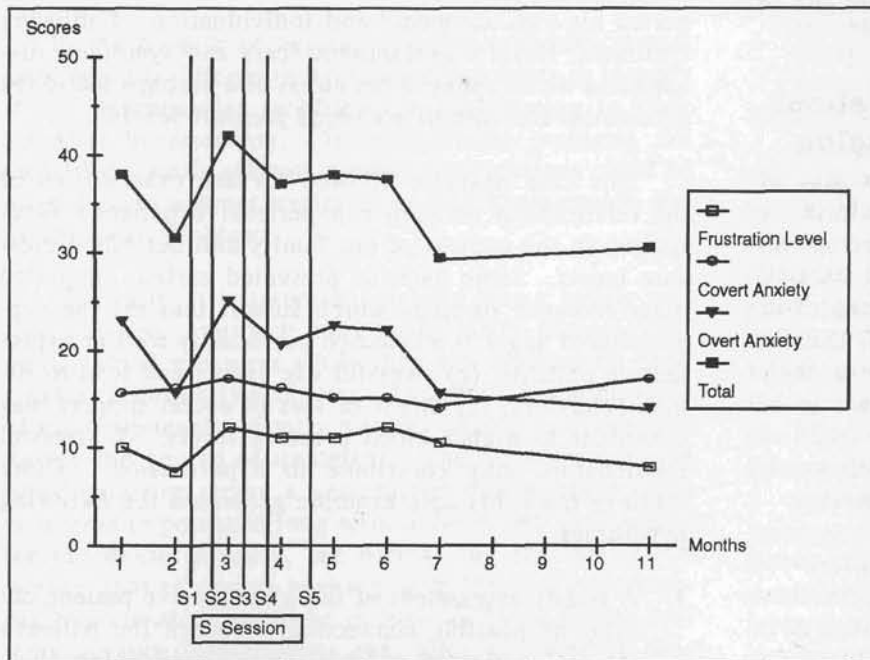


Figure 3. Hazel's results on IPAT Anxiety Scale.

Analysis of the family coping resources

Hazel's F-COPES scores were within the norms throughout the period of the study (see Figure 4). Both her internal and external resources scores decreased during and after the treatment period and increased during the follow-up phase. In comparison with her blood pressure, PSS, and IPAT scores, her F-COPES scores decreased after session two, the blood pressure levels and anxiety scores increased, and the PSS scores decreased. After the family systems nursing sessions, Hazel's internal resources increased while her external resources decreased and her blood pressure returned to baseline level.

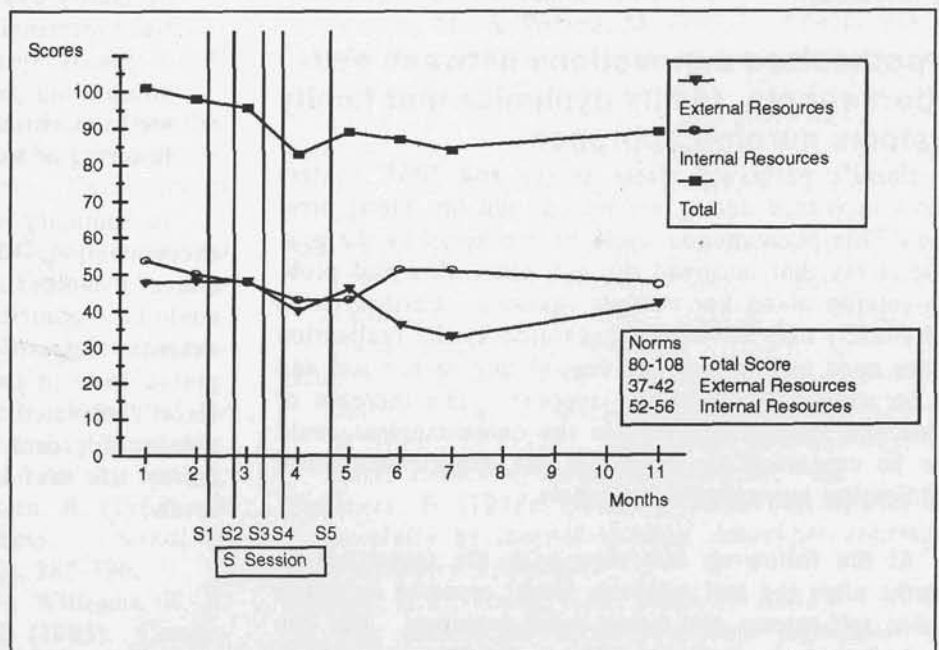


Figure 4. Hazel's results on F-COPES questionnaire.

Reflections on the clinical observations and research findings

The family interviews were videotaped and analyzed by three observers who examined the therapeutic process of each family session. These three observers were nurses with Master's degrees in nursing and expertise in family systems nursing practice. These nurse-observers were asked to reflect on: (a) the connections between the family system dynamics and the blood pressure of the hypertensive family member, and (b) the influence of family systems nursing interventions on the family system. An analysis of their reflections and of the results of the self-report measures are presented as follows:

Hypothesized connections between agoraphobia, hypertension and family dynamics

Hazel's agoraphobia may have contributed to her hypertension. Hazel was diagnosed with agoraphobia and hypertension following the death of her sister, Myriam, which may have been the stressful life event that triggered hypertension in Hazel. The recent death of her father exacerbated her symptoms of agoraphobia and hypertension. Financial insecurity (following bankruptcy) and separation from her husband led to a drastic change of lifestyle for Hazel. Her feelings of frustration and her difficulty expressing anger may also have contributed to her hypertension.

Hypothesized connections between social support and illness

Social support plays a prominent role in stress-illness models. Hazel acknowledged being dependent on her son and sister for emotional support. Her son's probable departure from home was a threat to the stability of her social support, which increased her experience of insecurity. Hazel experienced a maladaptive interactional pattern: the more insecure she became about her future, the more ill (hypertensive and agoraphobic) she felt. Conversely, the more ill she felt, the more she became insecure and dependent on her family.

Hypothesized connections among about anxiety, agoraphobia and hypertension

Hazel's "overt" anxiety scores were higher than her "covert" anxiety scores. One explanation could be her tendency to express anxiety through her agoraphobic symptoms. Her agoraphobia may have served the positive function of involving others in her life by expressing her fears and insecurities. Hazel reported that her stressful relationship with her mother was a major source of stress which she believed contributed to her hypertension. Unfortunately, this relationship could not be explored from Hazel's mother's perspective because she did not agree to participate in the family sessions.

Hazel was experiencing present stressful life events in addition to the anticipated stress because of the imminent departure of her son. Her stress and feelings of insecurity may have contributed to her agoraphobia and to her hypertension which in turn may have served the positive function of keeping her family involved as coping resources.

Hypothesized connections between self-report scores, family dynamics and family systems nursing approach

Hazel's perceived stress scores and IPAT anxiety scores increased during sessions as did her blood pressure. This phenomenon could be explained by the possible stress that occurred through discussing and problem-solving about her current stressors. Further stress and anxiety may have been generated by the realization of her need to decrease her dependency on her son and on her sister for emotional support. The increase of stress and anxiety reported in the questionnaires could also be explained by the stress she experienced when anticipating agoraphobic symptoms.

At the follow-up interview with the researcher (6 months after the last session), Hazel reported having a higher self-esteem and being more assertive. Her son reported that she verbalized her anger more often than before the sessions. At the same time, Hazel's perceived stress scores and IPAT anxiety scores decreased below

the baseline results while her F-COPES external resources score increased again within the norms.

Family systems nursing sessions may have assisted Hazel by offering her an alternate view of agoraphobia; providing a forum for clarification of concerns between family members; offering tasks/experiments to draw forth/expand her awareness of her coping abilities; and reframing her problems as "difficulties of daily living." The family sessions were also useful in decreasing Martin's concerns and worries about his mother which supported his own autonomy and individuation. Following treatment, Hazel's agoraphobic fears and symptoms disappeared which reduced her stress and perhaps led to the substantial decrease in her blood pressure levels.

This case example allowed for the examination of the relationship between a hypertensive patient's functioning in the context of her family and her blood pressure levels. Some data, as presented earlier, supported other research findings which submit that (a) the suppression of anger is a common personality trait in hypertensive patients; (b) stressful life events can lead to illness behaviors; (c) threat of loss of social support may contribute to higher blood pressure levels; (d) stressful relationships may contribute to hypertension. Other findings from this case example generated the following hypotheses:

1. A family assessment of the hypertensive patient can examine possible connections between the patient's family functioning and his or her hypertension.
2. Psychological disturbances (e.g., agoraphobia) can be triggered by stressful life events and maintained by family dynamics which may contribute to essential hypertension.
3. A family systems nursing approach can assist in eliminating psychological disturbances that contribute to essential hypertension and therefore result in a lowering of blood pressure levels.

In summary, despite physiological factors, such as excess weight, smoking, and a genetic predisposition (Hazel's mother also experienced hypertension) that could have contributed to Hazel's hypertension, this case example suggests that emotional factors played an important role in the development and/or maintenance of Hazel's elevated blood pressure. The family systems nursing approach may have invited changes in Hazel's family life that in turn influenced her blood pressure levels.

Conclusion

These clinical observations and research findings offer useful ideas. Specifically, experimental research studies should be conducted to test the hypotheses generated by this case example. The analysis of this case substantiates the need for studies which focus on the evaluation of family nursing interventions on the relationship between family dynamics and blood pressure levels.

In the domain of nursing practice, a family assessment could be offered to hypertensive patients to identify if any psychosocial problems are contributing to their essential hypertension. If psychosocial problems are identified, family systems nursing interventions could be offered as an adjunct treatment to both hypertension and psychosocial problems.

Clinically, it is important to note that a family systems nursing approach may temporarily increase patients' blood pressures while they are working on their psychosocial/family problems. Therefore, blood pressure of the hypertensive family member should be monitored during the course of treatment. The temporary rise in blood pressure seems a very minor disadvantage when compared to potential long term benefits that may accrue for the blood pressure, the patient and the family. A worthy goal of nurses working with families experiencing hypertension would be to identify those family systems nursing interventions that alleviate familial conflict, conflict that may otherwise maintain, exacerbate or contribute to experiences of hypertension.

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