

## A Longitudinal Perspective on Psychosocial Adjustment to Chronic Conditions

Mayo Medical Foundation

Marlene Hanson Frost, PhD, RN

Conducting nursing research can be a challenge with the variety of demands placed on a faculty member's time. A joint research endeavor in which faculty members joined forces was identified as an approach for making research manageable. Interested faculty worked as a group to critique the proposal which was initially developed by the principal investigator. The proposal served as the foundation for smaller working groups of three to four members. These smaller work groups subsequently chose a specific chronic condition with which to implement the study design designated in the overall proposal.

This resulted in five working groups using the same study design to explore factors influencing the psychosocial adjustment of individuals with the following chronic conditions: arthritis, cancer, cardiomyopathy, diabetes and multiple sclerosis. Each working group recruited 50 subjects. Each of the working groups will report data on the specific chronic condition upon which they focused. Additionally, the principal investigator will examine the similarities and differences across chronic conditions. This paper will focus on the design of this study and data from the cardiomyopathy subgroup. Strengths and limitations of the study design will also be explored.

### Purpose

The purposes of this study were to identify factors associated with individuals' adjustment to chronic conditions and to identify changes over time. The factors explored included personal factors, interpersonal factors, resources, cognitive appraisals and coping strategies. Data was collected at baseline, one and two years after baseline.

### Framework

The framework used to guide this study was Lazarus and Folkman's (1984) conception of coping as a process influenced by various antecedents and cognitive appraisals. Lazarus and Folkman (1984) assert that "psychological stress is a particular relationship between the person and environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well being" (p.19). Cognitive appraisal is central to Lazarus and Folkman's (1984) conception of coping and viewed as influencing individual's reactions and approaches for coping with a stressful situation. Defined as the process in which the significance of stressors are evaluated with respect to one's well-being, cognitive appraisals consist of three types: primary appraisal, secondary appraisal, and reappraisal. In primary appraisal, situations are evaluated as being (1) irrelevant, that is nothing will

be lost or gained, (2) benign-positive, in which outcomes are seen as positive or (3) stressful. Stressful situations can be identified as: harm or loss, in which damage to the person has occurred; threat, in which harm or loss is anticipated; and challenge, in which the possibility of mastery or gain exists. It was the stressful cognitive appraisals with which the researchers of this study were most concerned. Secondary appraisal is a judgment of the perceived resources to deal with the situation. Reappraisal is a change in appraisal due to new information. The longitudinal design with factors examined as to their importance over time was used in this study to capture reappraisal.

Lazarus and Folkman additionally postulate that antecedent variables influence coping. For example, personal factors such as age or gender and environmental factors such as income and educational status can influence coping outcomes. Individuals coping with physical illness may also be affected by illness variables such as other health problems, symptoms, loss of physical function, length of time since diagnosis, whether onset of illness was rapid or slow, whether the medical regimen was carried out, acute episodes of symptom exacerbation and hospitalizations. Interpersonal variables such as social support can also serve as an antecedent to stress and coping.

It is once the situation is appraised as stressful that coping is initiated. Coping is defined as cognitive and behavioral efforts to manage the stressful situation.

Using Lazarus and Folkman's conception of stress and coping as a framework for this study, personal and interpersonal factors, as well as the diagnosis of a chronic condition

were identified as influencers of cognitive appraisal which in turn influence the use of various coping strategies and psychosocial adjustment. A combination of qualitative and quantitative approaches were used to measure these variables. Personal factors, interpersonal factors and resources were obtained by open-ended interview; cognitive appraisals by the Meaning of Illness Questionnaire developed by McAdams, Byrne and Brown (1989); and coping strategies by two mechanisms including open-ended interview and the Ways of Coping Questionnaire developed by Folkman and Lazarus (1988). The median score on Psychosocial Adjustment to Illness Scale-Self Report version developed by Dero-gatis (1983) was used to categorize individuals as more or less effectively adjusting.

### Sample

The sample was one of convenience. Selection criteria included individuals: over age 18, diagnosed over 1 year but not more than 5 years, and who have had no acute episodes with hospitalization within the last three months. The criteria served to obtain adult subjects in the initial phases of adjustment to their disease entity as well as to ascertain that individuals were responding to the usual circumstances of their chronic condition, not a recent acute episode. Subjects were recruited from a four medical centers in the Midwest.

### Methods

Individuals identified as potential subjects were sent recruitment letters. Individuals who agreed to participate were sent questionnaires to complete and return. Open-ended interviews were completed in the subjects home unless they preferred to conduct the interview in a clinical setting. Interviews were taped and transcribed verbatim.

Interview data was analyzed for common themes including: personal factors, interpersonal factors, resources, cognitive appraisals and coping strategies. Chi-square, analysis of variance and multiple analysis of variance were used to determine significant differences between individuals more effectively and those less effectively adjusting. Multiple regression was used to identify significant predictors of psychosocial adjustment.

### Strengths and Limitations of Study Design

One of the major strengths of this study design was the combined qualitative/quantitative approach. The qualitative data was helpful in describing the quantitative findings as well as for providing details that were not available from the quantitative measures. A second strength is that the collection of data across various chronic conditions allowed for the comparison of factors influencing adjustment across the different chronic conditions. This will provide direction as to the similarities and differences among various chronic conditions on factors influencing adjustment. This will provide direction as to variations that need to be made in nursing interventions based on specific disease processes. Thirdly, the use of a common methodology for several small working groups facilitated the involvement of 17 researchers who provided guidance for each other.

Limitations of the study design included the use of various interviewers. This limitation was minimized by group discussion of the interview approach followed by role playing and critiquing of initial interviews by the principal investigator. A second limitation is the variation in time of one to five years since initial diagnoses. This variance was deemed necessary due to the limited number

of individuals with the identified diagnoses in the setting utilized. However, the majority of the subjects were diagnosed an average of approximately 2 years with a standard deviation of 1 year.

The number of variables explored in this study provided both a strength and a limitation. That is, a variety of personal, interpersonal, resources, cognitive appraisals and coping strategies were explored. While this allowed for the exploration of the significance of these variables in the presence of others, the limitations included the number of statistical tests that were run and the inter-correlations that occurred among variables.

### Findings

The following represents data from the cardiomyopathy subgroup. For this paper, only factors that have been found to be significant across all three time measurements, with the exception of resources found to be significant only year three, will be discussed. The data will be discussed under the categories of personal factors, interpersonal factors, resources, cognitive appraisals and coping strategies.

### Personal and Interpersonal Factors

Personal factors significant across all three data points included an increased number of other chronic conditions and physical function loss, both associated with less effective adjustment. Only one interpersonal variable, the extent to which the cardiomyopathy affected their family, was found to be a consistent factor across time that was associated with less effective psychosocial adjustment. This is significant in terms of system's theory. That is, interventions must occur with the patient's entire system, in

which the family is generally at the core.

### Resources

Decreased availability or utilization of resources, not significant prior to year three, became a significant variable year three. Among the specific factors under availability or utilization of resources were: a decreased utilization of social support, the existence of financial burden, a decreased understanding of their medical diagnosis and a less favorable secondary appraisal. Secondary appraisal reflects the resources individuals identify as available to assist them in dealing with their situation. All of these were associated with less effective adjustment. The significance of these variables are realized with the fact that often many nursing interventions are targeted at initial phases of adjustment to a chronic condition. However, decreased availability or utilization of resources was not found to be a significant variable until year three of the study. Thus, emphasis needs to be placed on interventions implemented later in the disease process.

### Appraisals

Cognitive appraisals found to be significant across time were those that reflected increased levels of harm or loss. These appraisals were associated with less effective adjustment.

This data provides support for Lazarus and Folkman's conception of cognitive appraisal as a central concept influencing adjustment.

### Coping Strategies

There were no consistent coping strategies utilized across time. This supports Lazarus and Folkman's (1984) concept that coping strategies are dynamic and changing over

time.

### Predictor Variables

Predictor variables found to be significant across all three data periods and associated with less effective adjustment included negative appraisals of the situation and less social support. An increased number of symptoms and environmental changes were found to be significant year 1, the existence of other chronic conditions year 2. The use of escape-avoidance coping was a significant predictor years 2 and 3. Secondary appraisal of the availability of resources was a significant predictor year 3 of the study.

### Conclusions

The data from this study reveal the importance of negative appraisal. This has implications for nursing practice and suggests the need for interventions aimed at decreasing the feelings of threat, harm and loss. While interventions aimed at increasing one's control over the situation by the use of interventions such as providing information and cognitive reframing of threat, harm and loss may be useful to decrease individuals' negative appraisal of their situation, research is needed to demonstrate these results. The importance of social support is consistent with the large data base on adjustment found in the literature. It is important for nurses to help individuals identify their sources of support and to feel comfortable drawing on these sources of support.

The use of escape-avoidance as a coping mechanism and its association with less effective adjustment supports the importance of introducing other types of coping mechanisms. It may be useful to promote the concept of normalization, teaching individuals

to put their life in the forefront and their chronic condition in the background. This can be promoted by helping individuals reintegrate the roles in their life that are important to them, making activities that support the normalcy of their life a priority. The individual may need to go through an exercise of identifying the activities they enjoy and that are important in fulfilling their roles. This will help the individual in knowing which activities they should expend energy and which they should delegate or put off until energy levels are adequate to fulfill.

Secondary appraisal of the availability of resources becoming significant year three of the study may be associated with diminishing financial supports and the fatigue of emotional and physical support systems with time. While nursing often focuses on available resources early in the adjustment phase to cardiomyopathy, it may be more important for nursing to focus on these resources as time evolves.

### Summary

In summary, several factors were identified as consistently demonstrating a significant difference between more effectively adjusting and less effectively adjusting groups over time. The factors identified provide direction for nursing interventions and intervention research. Further research is needed to support the stability of these factors with different populations.

### References

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