THE RELATIONSHIP OF EXPRESSED EMOTION AND PSYCHOSOCIAL VARIABLES WITH THE QUALITY OF LIFE OF HAEMODIALYSIS PATIENTS : AN ANALYSIS WITHIN THE CONSERVATION OF RESOURCES MODEL

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ABSTRACT

QUALITY OF LIFE OF HAEMODIALYSIS PATIENTS AND RELATIONSHIP TO EXPRESSED EMOTION AND PSYCHOSOCIAL VARIABLES: AN ANALYSIS WITHIN THE CONSERVATION OF RESOURCES MODEL

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This study aimed to examine the quality of life (QOL) and well-being of haemodialysis patients and the relationship of two components of perceived expressed emotion (criticism/hostility and emotional over-involvement) and other psychosocial resources within the Conservation of Resources Model. Demographic variables and haemodialysis related information of patients, classified as resources, were also included in the study. One hundred and six haemodialysis patients voluntarily participated in the study. Before the main study, for evaluating the psychometric properties of the Symptom Distress Scale (SDS), Coping Self-Efficacy Scale (CSES), and Perceived Expressed Emotion Scale (PEES) a pilot study was conducted with the fifty-three haemodialysis patients. Results of the pilot study provided support for the reliability and validity of scales. For the main study, optimism, self-esteem, and perceived social support were taken as resources and were also included as measures. In order to test the main hypothesis of the studies a series of regression analyses were conducted. The results of the analysis revealed that predictors of well-being were age, self esteem, criticism/hostility factor of perceived expressed emotion and coping self-efficacy; predictors of physical health component of QOL were age, education, presence of additional diagnosis, and coping self-efficacy. Moreover, it was found that predictors of mental health component of QOL were the presence of additional diagnosis and coping self-efficacy; and predictors of the mean score of QOL were age, presence of additional diagnosis, self-esteem, and coping self-efficacy. Directions of the relationship between age, education, presence of additional diagnosis, and criticism/hostility were negative with the outcome variables, whereas, directions of the relationship between self-esteem and coping self-efficacy were positive with the outcome variables. The mediational role of coping self-efficacy in the association between resources and outcome variables were also investigated. Mediator effect of coping self-efficacy was found only for two variables. Firstly, the effect of duration of haemodialysis treatment was mediated by the coping self-efficacy for the well being measure. Second, coping self-efficacy carries the influence of the family income to the mean score of QOL. After discussing the findings of the present study in the light of the literature, the limitations and the clinical implications of the results and directions for the future studies were suggested.

Keywords: Conservation of Resources Model, Quality of Life, Expressed Emotion, Well-being, Haemodialysis, Coping Self-efficacy, Symptom Distress, Optimism, Self esteem, Social Support.

ÖZ

HEMODİYALİZ HASTALARININ YAŞAM KALİTELERİ VE DIŞA VURAN DUYGULARLA VE PSİKOSOSYAL DEĞİŞKENLERLE İLİŞKİSİ: KAYNAKLARIN KORUNMASI MODELİ ÇERÇEVESİNDE BİR DEĞERLENDİRME

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Bu çalışmada hemodiyaliz hastalarının yaşam kalitesi ve psikolojik iyilik halleri ile, dışa vuran duygu durumunun iki faktörü (eleştirici/düşmanca tutum ve duygusal aşırı bağlanma faktörü) ve diğer psikososyal değişkenler arasındaki ilişki, Kaynakların Korunumu Modeli çerçevesinde araştırıldı. Kaynak olarak sınıflandırılan, demografik değişkenler ve hastaların hemodiyalizle ilgili bilgileri araştırmaya dahil edildi. Çalışmaya 106 gönüllü diyaliz hastası katılmıştır. Ana çalışmadan önce, Semptom Sıkıntı Ölçeğinin (SDS), Başetme Özyeterlilik Ölçeğinin (CSES) ve Algılanan Dışavuran Duygudurum Ölçeğinin (PEES) psikometrik özelliklerini değerlendirmek amacıyla, 53 hastanın katıldığı, bir pilot çalışma gerçekleştirilmiştir. Pilot çalışmanın sonucu, ölçeklerin geçerlilik ve güvenilirliklerinin kabul edilebilir düzeyde olduğunu desteklemiştir. Ana çalışmaya, kaynak olarak kabul edilen, iyimserlik, benlik saygısı, ve algılanan sosyal desteğin ölçümleri de eklenmiştir. Araştırmanın temel hipotezlerini test etmek için regresyon analizleri kullanılmıştır. Bulgular, psikolojik iyilik durumunu, yaş, benlik saygısı, dışa vuran duygu durumunun eleştirici/düşmanca tutum faktörü ve başetme özyeterliliği değişkenlerinin; yaşam kalitesi ölçeğinin fiziksel sağlık bileşeni ise, yaş, eğitim, ikinci bir kronik hastalığın varlığı, ve başetme özyeterliliği değişkenlerinin yordadığını göstermiştir. Ayrıca, yaşam kalitesinin ruhsal sağlık bileşenini, ikinci bir kronik hastalığın varlığı, ve başetme özyeterliliği değişkenleri; yaşam kalitesi ölçeğinin ortalamasını ise, yaş, ikinci bir kronik hastalığın varlığı, benlik saygısı, ve başetme özyeterliliği değişkenleri yordamıştır. Yaş, eğitim, ikinci bir kronik hastalığın varlığı, eleştirici/düşmanca tutum değişkenleri sonuç değişkenleri ile negatif yönde ilişki gösterirken, benlik saygısı ve başetme özyeterliliği değişkenleri sonuç değişkenleri ile pozitif yönde ilişki göstermiştir. Başetme özyeterliliği değişkeninin kaynaklar ve yaşam kalitesi ve psikolojik iyilik hali değişkenleri arasındaki ilişkideki aracılık rolü de araştırılmıştır. Başetme özyeterliliği değişkeninin aracılık etkisi iki değişken için bulunmuştur. İlk olarak, hemodiyaliz tedavisi süresinin, psikolojik iyilik hali üzerine etkisine, başetme özyeterliliği aracılık etmiştir. İkinci olarak, başetme özyeterliliği, ailenin gelirinin etkisini, yaşam kalitesi ölçeğinin ortalaması değişkeni üzerine taşımıştır. Araştırmanın bulguları literatür ışığında tartışıldıktan sonra, araştırmanın sınırlılıkları ve implikasyonları ve gelecekteki çalışmalar için önerilere yer verilmiştir.

Anahtar Kelimeler: Kaynakların Korunumu Modeli, Yaşam Kalitesi, Dışavuran Duygudurum, Psikolojik İyilik, Hemodiyaliz, Başaçıkma Özyeterliliği, Semptom Sıkıntısı, İyimserlik, Benlik Saygısı, Sosyal Destek.

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INTRODUCTION

The main aim of this study is to examine the quality of life (QOL) and well-being of haemodialysis patients and its relationship with expressed emotion and other psychosocial variables within the conservation of resources (COR) model (Hobfoll, 1989). Introduction part of this thesis provides an overview of the end stage renal disease (ESRD) and haemodialysis. Section two deals with the COR model of Hobfoll (1989), as the main theoretical basis for this study. This section also includes sociodemographic variables, and illness related factors of haemodialysis patients, which are related to the model. Section three focuses on the concept of expressed emotion (EE), which includes discussions about on the relationships of the EE construct with psychiatric and medical illnesses and social support as environmental resources. Additionally, rationale for the selection of haemodialysis patients as the sample of the present study is given in the part. Following sections are concerned with the nature and effects of personal-trait resources that relate to the COR model. These personal characteristics are optimism, self-esteem, and coping self-efficacy constructs. Quality of life (QOL) and well-being are taken as outcome measures. The final section presents the aim of the study.

1.1 End Stage Renal Disease: Effects and Treatment

There is no single a universally accepted medical definition of chronic illness due to the tremendous variations in the cause, progression, and outcome of these illnesses. Generally, however, the term chronic illness or disease refers to a persistent, unstable, progressive, irreversible, degenerative, and long lasting disease (Thompson, & Kyle, 2000).

There are also profound psychological implications of chronic illness on the patient's life. It was stated that stress of chronic illness and handicap can severely tax the emotional resources of the most tolerant and optimistic person (DiMattew, & Martin, 2002). It was argued that the onset of severe and chronic illness represents one of the most traumatic events imaginable, especially when it occurs in earlier phases of the life span (Ferring, & Filipp, 2000). While chronic conditions do vary in their severity and in the extent to which they interfere with "normal" life, each chronic condition brings with it at least some of the following problems and challenges. Because chronic illnesses generally result in day-to-day hassles, unpleasant medical treatments, pain, disability, and a threat to life itself, they involve significant personal losses without the possibility of cure. Moreover, because chronic illness interferes with the patient's daily life, as well as the lives of family members, family routines, and activities are negatively affected. Those with a chronic illness may be faced with the loss of energy and physical strength, and undesired changes in physical appearance. In addition to physical disability, the negative biases and stigma of others may lead to losses in the area of occupational and employment roles (Susman, 1996). Typically, the more disabling the condition, the more problems there are to face.

There are some chronic illnesses, such as cancer and cardiovascular disease, on which much research has focused on; on the other hand, some chronic illnesses have not received adequate research attention or resources. End stage renal disease (ESRD) is one of these areas of research concern. Concerning the increasing number of patients and occurrence of the ESRD treatment, psychological intervention may have important contributions to the QOL and rehabilitation of these patients.

The life expectations of ESRD patients has increased because of the technological advances in the treatment of patients. Thus, this resulted in the increased attention in psychological aspects of their adaptation to changed existence. Comparing with other chronic illnesses, the length of time patients live with this disease are improving and dialysis units are presently reporting patients who have survived as long as 25 years while on dialysis (Symister & Friend, 1996).

A chronic loss of kidney function may be caused by a number of factors: These commonly include diabetes, glomerulonephritis, chronic hypertension, and familial polycycstic renal disease (Petrie, 1997). A decline in renal function causes a gradual accumulation of the body’s waste products. Increasing levels of urea and creatinine in the blood are indicator of this. The metabolic disturbance accompanying renal failure leads to a number of physical symptoms, mostly, lethargy and drowsiness, nausea and vomiting, as well as anorexia (Petrie, 1997).

Three major treatments are used to correct the on-going effects of kidney failure (Symister & Friend, 1996). In haemodialysis, the patient's blood is passed through an artificial kidney machine that removes waste products by passing the blood across a semi-permeable membrane. Most patients on haemodialysis must dialyze three times a week for around four and six hours. Often, this can be done independently by the patient in his or her own home or work place, which is referred to as home haemodialysis or by coming to a hospital haemodialysis unit (Symister & Friend, 1996). Continuous ambulatory peritoneal dialysis is another treatment strategy. Continuous ambulatory peritoneal dialysis works according to the same general principle as haemodialysis but the whole process is conducted inside the body. Continuous ambulatory peritoneal dialysis involves the overnight installation of a solution into the abdominal cavity while the patient is connected to a machine via tubes that have been surgically implanted in his or her abdomen. In this way, peritoneal dialysis can take place while the patient sleeps. The fluid is drained after about 4-6 hours and the whole cycle is repeated each day, on three or four occasions. This process requires connection to the dialysis machine by means of an elaborate sterile technique that can take more than an hour to carry out. This technique requires considerable care and concentration to avoid mistakes. Errors in the sterile procedure can introduce bacteria into the abdominal cavity, resulting in a serious, life-threatening infection called peritonitis (DiMattew, & Martin, 2002). Improved rates of survival and correction of anaemia, as well as more liberal diet, are features of continuous ambulatory peritoneal dialysis. Lastly, the transplantation of a kidney from a cadaver or a living relative is another treatment option for renal failure patients. Although, introduction of a new generation of immunosuppressive drugs has resulted in improved rates of graft function with now 80% successful after one year, the probability of graft failure even after 7 years is still as high as 50% and it is common for patients to have changed from one treatment modality to another, including those with failed transplants (Symister & Friend, 1996).

1.1.1 Effects of haemodialysis

The difficulties inherent in renal disease are a function of physiological consequences of kidney failure, the restrictions imposed by a persistent dialysis regimen and the on-going psychological adjustments required by a chronic illness (Petrie, 1997). One of the most disabling effects of end stage renal disease (ESRD) is lethargy and tiredness. This interferes not only with daily work functioning, but also with family relationships, as the patient often lacks the energy to engage in previously enjoyed social activities (Petrie, 1997). A reduction in sexual activity, itchy skin and sleep problems are also common in ESRD.

The process of dialysis treatment creates difficulties that threaten the well-being of the patients too. The most common ones among these problems are problems with the fluid and diet restrictions required the development of needle stick fears, and the trouble with dialysis technique that can result in periodic infections (Petrie, 1997). Often patients' frustrations with their condition and on-going haemodialysis show themselves in compliance problems with the treatment, diet and fluid restrictions. Non-compliance is a major problem in patients on haemodialysis as the regimen has many of the characteristics that work to decrease compliance. The treatment is complex, long lasting, and has direct impacts on the patient’s lifestyle. Non-compliance can also lead to conflict between staff and patients.

Given this combination of physiological and psychological problems, it is not surprising to find higher rates of psychological problems and impaired well-being in haemodialysis groups when compared to the renal transplant patients, and general population groups (Simmons, Anderson, & Kamstra, 1984). Despite the difficulties in assessing depression in dialysis patients because of the overlap of depression symptoms with somatic symptamatology, high levels of depression have been consistently found in dialysis patients (Levenson &Glocheski, 1991).

Long (1989) after describing the anxiety, depression and non-compliance due to depression and sexual problems among the most common psychological correlates of ESRD, stated that “These responses are understandable: the chronic patient finds that what was ‘normal’ for him is no longer ‘normal’. He may be no longer healthy, independent, active, and physically attractive to others, capable of long work hours and sexually potent”. Moreover, it was stated that psychosocial consequences of chronic failure include family and marital problems, financial burdens and severe role disruption in work and social spheres (Long, 1989).

Long (1989) categorized causes of stress on the patient whose life is maintained by haemodialysis into six categories. These are: “i) consciousness of the life threat in kidney failure (which are, high rate of mortality rate of renal patients, many possible physical complications, and witnessing other patients dying), ii) impaired bodily functioning (because of the nature of the illness, urological, nephrological, and endocrinological systems are affected and people on haemodialysis vary greatly in their sense of well-being and fluctuating uremia causes a severe reduction in physical energy and constant feelings of illness including nausea, dizziness, fatigue, restlessness, sleep difficulties, itching, inability to concentrate and deterioration of bones and nerves), iii) secondary consequences of kidney failure and haemodialysis (loss of employment, financial stringencies, and restrictions on travel and leisure time activities), iv) the exigencies of the haemodialysis regimen(strict salt-free diets, fluid restrictions, attendance for time consuming treatment), v) haemodialysis treatment (dependency on the medical processes, staff and machine), and vi)interpersonal confusion ".

Obviously, the effects of these stressors are related to a number of factors including, personal, psychosocial, and illness related factors on QOL and psychological well-being of patients.

1.2 Theoretical Framework of the Study: Conservation of Resources Theory

Conservation of resources (COR) theory's basic tenet is that people strive to retain, protect, and build resources, and that what is threatening to them is the potential or actual loss of these valued resources (Hobfoll, 1989). Model defines the psychological stress as a reaction to the environment in which there is (a) the threat of a net loss of resources, (b) the net loss of resources, or (c) a lack of resource gain following the investment of resources. Both perceived and actual loss and the lack of gain was seen as sufficient for producing stress. Resources were seen as the single unit necessary for understanding stress and were defined as those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for achievement of these objects, personal characteristics, conditions, or energies.

Model identifies four kinds of resources, whose loss and gain result in stress or eustress (i.e., well-being), respectively. Firstly object resources were valued because of aspect of their physical nature or because of their acquiring secondary status value based on their rarity and expense. A home, mansion, and other objects linked to socioeconomic status were given as examples of object resources. Conditions were defined as a second group of resources to the extent that they are valued and sought after. Marriage, tenure, and seniority were given as examples of these. Moreover, it was suggested that measuring the extent to which conditions are valued by individuals or groups may provide insight into their stress-resistance potential. Personal characteristics were defined as the third group of resources to the extent that they generally aid stress resistance. Personal traits and skills were classified in this category of resources and suggested that many of them aid stress resistance. Energies are the last resource category and included such resources as time, money, and knowledge. Social support did not fit in any one category above, rather social relations were seen as a resource to the extent that they provide or facilitate the preservation of valued resources.

According to the COR theory, resource loss is the primary operating mechanism driving stress reactions and stress is likely to develop only when loss is evidenced. Change, transitions, and challenge were not of delineated as important sources of stress. However, change resulting in a loss of valued resources is seen as the most problematic. Further, the theory suggests that, in the face of adversity, people mobilize remaining resources to offset the ongoing challenges that confront them. To the extent that they can limit resource loss, they will manifest fewer negative outcomes, because these resources are integral to the individuals' ability to offset stress, improve their conditions, and deter future stressful experiences.

Similar to Lazarus and Folkman (1984), the model also proposed an important role for appraisal, It was argued that individuals might conserve resources by shifting the focus of attention (e.g., focus on what people might gain instead of what they might lose), and reevaluating resources (e.g., stress of school failure can be mitigated by lowering the value placed on education). However, it was hypothesized that " although minor reappraisals may allow individuals to buffer the brunt of stressors, reappraisals of more basic aspects of the self and the environment are more likely to backfire against the individuals-resulting in a sense of security and despair-than they are to have stress-moderating effects".

The model emphasizes that resources have both objective and subjective components. It was suggested that individual traits, such as hardiness, locus of control, personal-consciousness, optimism, absence of chronic psychopathological disorder, low negative affectivity, and social support could be examined as resources effecting different kinds of losses. To date, the Conservation of Resources stress model (Hobfoll, 1989) has been applied in work–family research (Grandey & Cropanzano, 1999; Rosenbaum, & Cohen, 1999), emotional exhaustion in work environment (Ito & Brotheridge, 2003), early stages of a natural disaster (O'Neill, Evans, Bussman, & Strandberg, 1999), and AIDS prevention program (MacKenzie, Hobfoll, Ennis, Kay, Jackson, & Lavin, 1999).

In summary, Hobfoll’s (1989) COR model offers a theoretical guide for comprehending the illness-health literature and it will be used as the theoretical basis of this study (see Figure1, page 33, Based on the model). The COR model was chosen because, firstly, it allows for predictions about specific hypotheses about relationships between resources and a broad range of outcomes. Secondly, COR theory allows for predictions about the mediating relationship of personal characteristics in these illness-health related variables. Lastly, the COR model incorporates the effect of life change events on stress levels.

1.2.1 Conservation of Resources Theory as It is Related to Haemodialysis

The present research examined relationships among multiple resources, as given in the conservation of resources (COR) theory’s basic principle, and it is proposed that stress is likely to develop only when loss is evidenced in haemodialysis patients, and this relation is mediated by a personal characteristic, which is chosen as coping self-efficacy for the present study.

The COR’s emphasis on threatened resources suggests that certain critical events are a source of stress as well. Specifically, events that result in a loss of resources are predicted to create stress and strain outcomes. For example, Hobfoll (1989) refers to the stressful event surveys (Dohrenwend & Dohrenwend, 1974) in emphasizing that items rated “most severe” are events where loss occurs and argued that qualitative data describing specific events in people’s lives can reveal such losses. Such events relevant to the present study are considered to be having haemodialysis treatment result of the end stage renal disease (ESRD). Moreover, other losses related to illness might include family problems, financial downfall, or a worsening in illness condition. In these events, the resources of marital status, money, health and time (respectively) are lost.

The present study includes four resources that are assumed to contribute to the quality of life (QOL) and well-being. Object resources are the first category that will be included in this study as resource variables. Level of education, hausing tenure, car ownership and employment status will be included in the study as sociodemographic variables. Elal and Krespi (1999) conducted a study to determine depression levels of two hundred Turkish haemodialysis patients with renal failure. Level of education, family income and employment status were found to differentiate the levels of depression (high, moderate and non-depressed) among the groups of patients using Beck Depression Inventory (BDI). According to the results of this study, clinically depressed patients had a lower educational level and lower family income and were more likely to be unemployed than the other groups. Thus these results supported the predicted relationship between low object resources and distress.

The conditions resources include, age, gender, marital status, and illness characteristics. In a comparison study between the general population and hospital inpatients with various somatic (cancer, diabetes, multiple sclerosis, heart disease, respiratory disease, arthritis) and psychiatric diseases (schizophrenia), it was reported that age has a negative impact on global assessment of QOL (Kilian, Matschinger, & Angermeyer, 2001). Furthermore, the same study reported that people who are living with a spouse or partner assess their global QOL as better than people who are living alone and males assess their physical quality of life better than females. Constant negative effect of age was areported on physical functioning of coronary artery disease patients (Hofer, Benzer, Alber, Ruttmann, Kopp, Schussler, & Doering, 2005). Additionally, significant negative relationship between age and level of QOL was also found for the general population (Wahl, Rustøen, Hanestad, Lerdal, & Moum, 2004). Research with the 146 chronic dialysis patients (haemodialysis and peritoneal dialysis) were compared with the general population in terms of the health related QOL using the SF-36 and disease specific questionnaire (Carmichael, Popoola, John, Stevens, & Carmichael, 2000). They reported that the haemodialysis patients were similar with respect to most demographic, clinical and dialysis variables except for haemoglobin and albumin which were significantly greater in the peritoneal and haemodialysis populations respective and the health related QOL of dialysis patients were worse when compared to the general population. Moreover, decline was the greatest for the role limitations related to physical problems with increasing age for the dialysis population. Furthermore, decrease for the physical functioning and role limitations related to physical and emotional problems for the haemodialysis patients, older than sixty years old were also reported (Molsted, Aadahl, Schou, & Eidemak, 2004).

The severity and the nature of the disease do not seem to have consistent relationship to patient coping and adjustment to chronic illness. Investigation of the patients' own understanding of the haemodialysis may provide an opportunity to better understand adjustment of haemodialysis patients to the ESRD. In order to deal with the on-going demands of being haemodialysis patients requires adjustments to daily lifestyle related with the adjustment to symptoms, coping with difficulties of treatments and dealing with the social and occupational issues. Therefore, illness characteristics and illness related distress will also be included as conditions. Symptom distress, and medical characteristics namely, reason for losing renal function, duration of haemodialysis treatment, frequency and hours of haemodialysis treatment, number of ESRD-related hospitalizations in the previous year, number of additional diagnoses, presence of chronic rejection will also be included in this study. Somatic diseases not only have a strong negative impact in the physical health domain of QOL, but also have impacts on the psychological well-being, and overall QOL. It is also known that severe somatic chronic conditions e.g. cancer have a significant negative impact on psychological well being (Andersson, & Albertsson, 2000; Brennan, 2001; Edwards, & Clarke, 2004; Ho, Chan, & Ho, 2004; Katz, Irish, & Devins, 2004; Shapiro, Lopez, Schwartz, Bootzin, Figueredo, Braden, Kurker, 2001), coronary heart disease (Burg, & Abrams, 2001; Tedstone, & Tarrier, 2003), multiple sclerosis (Mohr, & Cox, 2001), diabetes (Sudhir, Kumaraiah, & Munichoodappa, 2003), arthritis(Kilian et al., 2001), and ESRD on dialysis (Sollod, 2002). Understanding the impact of chronic illness on different aspects of human life and psychological mechanism, which provides knowledge about how this impact occurs, will provide an opportunity to take into consideration the emotional and psychological variables for the development of an effective treatment plan for the patients.

Personal characteristic variables are included as a component of the COR model. According to COR, individual differences can be treated as resources (Hobfoll, 1989). Perceived expressed emotion (PEE) and perceived social support of patients are considered as an social resource. Furthermore, they are regarded as resources that can affect resources in the other areas. Optimism, self-esteem and self-efficacy are also considered as resources and they are grouped under the personal characteristic resources.

Energies were the last resource category and included such resources as family income, knowledge about etiology, treatment, and prognosis of ESRD on haemodialysis treatment. The model employed in this research proposes those resources' effects on QOL and well-being are mediated by self-efficacy. In the subsequent sections environmental and other personal characteristics resources will be investigated in detail.

1.3 Social Resources

1.3.1 Expressed Emotion

COR model is defined as an integrative stress theory that considers environmental processes besides the internal processes equally (Hobfoll, 1989, 2001). Thus, including expressed emotion construct into the study is thought to be important. Expressed emotion (EE) is a measure of a relative's attitude, behavior, and emotions towards an ill patient. It was defined as a measure of the extent to which an individual family member talks about another family member in a critical or hostile manner or in a way that indicates marked emotional over-involvement (Barrowclough & Hooley, 2003). The significance of the family emotional atmosphere, especially criticism in the outcome of schizophrenia was developed into the concept of "expressed emotion" by Brown and Rutter (1966), in Britain, to explain relapses in adequately medicated schizophrenic patients following discharge from the hospital. The first instrument to assess the level of EE was The Camberwell Family Interview (CFI) and Vaughn and Leff (1976) developed it in the investigation of family influences in the course of schizophrenia. CFI is now considered to be the golden standard to measure EE by means of assessing of types of remarks and the tone of voice used by the family member/caregiver when referring to another during a tape-recorded standard interview (Van Humbeeck, Van Audenhove, De Hert, Pieters, & Storms, 2002). However, there are self-report instruments measuring EE, such as Family Questionnaire (Wiedemann, Rayki, Feinstein, & Hahlweg, 2002). EE was defined as a multidimensional construct including criticism (critical comment, C), hostility (H), emotional over-involvement (EOI), positive remarks and warmth (Barrowclough & Hooley, 2003; Kavanagh, 1992; Wearden, Tarrier, Barrowclough, Zastowny, & Rahill, 2000). Based on the ratings of Camberwell Family Interview, C is defined as remark that expresses negative attitudes about specific and discrete patient behaviors. H, on the other hand, involves either a generalization of criticism to remarks about the person as a whole, or an explicit rejection of the person. EOI refers to a composite measure of factors such as caregiver’s exaggerated emotional response, overintrusive or self-sacrificing behavior, and over identification with the patient. Positive aspects of the relationship may also be measured in the form of positive comments, a frequency count, and warmth (Barrowclough & Hooley, 2003). Classification of relatives’ EE status is based mainly on three variables C, H, and EOI. Relatives scoring above threshold on one or more of these dimensions are assigned ‘‘high EE’’ status (Barrowclough & Hooley, 2003).

The EE concept has been shown to be a good predictor of relapse in patients with various diagnoses, including schizophrenia (King, 2000; Kopelowicz, Zarate, Gonzalez, Lopez, Ortega, Obregon, & Mintz, 2002; Mino, Shimodera, Inoue, Fujita, Tanaka, & Kanazawa, 2001;Os, Marcelis, Germeys, Graven, & Delespaul, 2001), eating disorders and mood disorders (Butzlaff and Hooley, 1998; Wearden, Tarrier, Barrowclough, Zastowny, & Rahill, 2000). Moreover, the concept of high EE leading to relapse is not only specific to schizophrenia and to the family environment, such as, staff and patient relationships in three forensic services for in-patients was measured in terms of EE (Moore, Yates, Mallindine, Ryan, Jackson, Chinnon, Kuipers, & Hammond, 2002).

1.3.1.1 Expressed Emotion and Psychiatric Illness

It has been shown in both psychiatric and non-psychiatric illnesses that, family relationships can be a source of continual emotional stress for the patient. Connection between mental health status of individuals and family relationships was examined in different studies. Such as, in a study, 80 patients with a diagnosis of depression and schizophrenia were examined in terms of EE status with the Five-Minute Speech Sample (FMSS) method to assess expressed emotion (EE), on the basis of critical comments(C) and emotional over-involvement (EOI) (Bachmann, Bottmer, Jacob, Kronmuller, Backenstrass, Mundt, Renneberg, Fiedler, & Schroder, 2002). It was reported that relatives of first-episode and chronic patients for depression and schizophrenia did not significantly differ in regard to their EE status. In first-episode patients and chronic patients, relatives were classified high in EE, 20% and 12.5% respectively. In another study, 12 schizophrenia, 16 psychotic mood disorders and 14 non-psychotic mood disorders patients and their relatives were interviewed using Five-Minute Speech Sample method (Heikkila, Karlsson, Taiminen, Lauerma, Ilonen, Leinonen, Wallenius, Virtanen, Heinimaa, Koponen, Jalo, Kaljonen, & Salakangas, 2002). High EE status of the patients' relatives was reported as follows: 41.7% of the schizophrenia patients' relatives; 43.8 % of the psychotic mood disorders patients' relatives and; 35.7 of the non-psychotic mood disorders patients' relatives, with an overall high EE score for 40% of the relatives. However, EE was not associated with premorbid characteristics, symptom dimensions or the diagnostic group of the patient. Additionally, relationships among EE, family factors, and symptoms observed while conducting psychoeducation for the family members of patients with eating disorders, and it was reported the rates of high EE relatives tended to decrease (especially high EOI) and families' assessment of symptoms was also significantly improved (Uehara, Kawashima, Goto, Tasaki, & Someya, 2001). Karanci and İnandılar (2002) examined the patient and caregiver related characteristics to predict on EOI and criticism-hostility(C/H) components of EE. They reported that perceptions of coping were negatively related to C/H, whereas perceiving higher frequency of symptom behaviors was positively related to the caregivers' C/H levels. It was also found that number of individuals living in the households, being the mother, father or spouse, perceptions of coping and distress due to symptom behaviors contributed positively to the EOI levels. Additionally benefits of targeting high EE families in order to decrease relapse rate for schizophrenia and other illness were reported elsewhere (Honig, Hofman, Rozendaal, & Dingemans, 1997; Kim & Miklowitz, 2004; Lenior, Dingemans, Schene, Hart, &

Linszen, 2002; Miklowitz, Simoneau, George, Richards, Kalbag, Sachs-Ericsson, & Suddath, 2000; Renshaw, Chambless, & Steketee, 2001; Shimodera, Inoue, Mino, Tanaka, Kii, & Motoki, 2000). For several years, research has attempted to document families' approaches to short and long-term management of illness. Today, it is accepted that besides the physical and psychological variables of the individual, familial and social factors influence, disease, susceptibility, adaptation to disease and recovery in medical conditions, too.

1.3.1.2 Expressed Emotion and Medical Illness

Relationship with the care provider can be one of the major sources of difficulty in the management of chronic illnesses. A number of chronic medical conditions in which it is thought that psychosocial and familial factors might play a role in the course or outcome of the illness have also been studied using the expressed emotion (EE) methodology. In a study, sixty adult Type 1 diabetes out patients and their partners were interviewed separately (Wearden, Tarrier, &Davies, 2000). Partners' EE was rated from a modified Camberwell Family Interview. Dependent variables were management and adaptation to diabetes, besides the medical measure of glucose control. It was reported that 17% of partners were classified as high EE, and while EE variables were not associated with glucose control, patients with high-EE partners had significantly lower (worse) adequacy of management scores, higher depression scores, higher (more negative) appraisal of diabetes scores, and lower marital satisfaction scores than the patients with low- EE partners. EE has also been found to be associated with glycaemic control in young children with Type 1diabetes in a longitudinal study over 24 months (Worrall-

Davies, Owens, Holland, & David, 2002). Forty-seven children and their parents were studied over 24 months. Parental EE was measured using an adapted version of the Camberwell Family Interview. It was reported that the presence of paternal hostility was important and explained 29% of the variation in glycated haemoglobin, although parental emotional over-involvement or criticism did not predict glycaemic control.

Another study examined the relationship between the levels of EE of both parents of asthmatic children and asthma symptom onset by including the measures of medication compliance, time spent with relatives, and life events (Gartland & Day, 1999). Thirty-two pairs of biological parents, with a child who had been diagnosed with asthma participated into the study. EE was measured using a modified version of the Home Life Questionnaire. A significant relationship was found between fathers' total expressed emotion measure and criticism level with school absences, which was considered as one of the general measures of well-being.

Epilepsy is another medical condition in which EE levels of parents were examined in a study of forty-one people with epilepsy and living with one or both parents using the Camberwell Family Interview (Brown, & Jadresic, 2000). It was reported that the presence of any seizures in the last 6 months varied with paternal critical comments, and with maternal emotional over-involvement.

1.3.1.3 Expressed Emotion and Haemodialysis Patients

Studies examining the quality of the relationship between patients and their relatives, and the course of psychiatric and non-psychiatric illness using expressed emotion (EE) methodology, presented in the earlier section of this thesis, has demonstrated that EE is associated with the features of the illness course and outcome. However, it appears that EE has as many differences as commonalities for different illnesses. Moreover, as noted above, the relationship of EE with illness course in many medical conditions, such as, end stage renal disease (ESRD) patients on haemodialysis treatment has not been well established yet. The present study aimed to investigate the components of EE, specifically criticism-hostility(C/H), because of its predictive power reported in other studies (Barrowclough & Hooley, 2003; Gartland & Day, 1999; Kavanagh, 1992; Kim & Miklowitz, 2004; Renshaw et al. 2001; Worrall-Davies et al., 2002). Haemodialysis patients will be selected as the sample for the presentstudy because of its prevalence, potential for severe physical and psychological problems, and chronic nature underscoring the need for emotional support from family members. The treatment of renal failure creates considerable difficulties not only for patients but also for their families. They must adapt to the loss of a bodily function and the accompanying energy-sapping symptoms. Given the demands and restrictions of life on dialysis as well as the psychological issues of dependency and an uncertain future, the illness gives high level of responsibility to the families of patients, too.

Concerning ESRD on haemodialysis patients, their relationship with EE is evaluated in the present study for the following reasons. First, there are not any research findings yet to enable conclusions to be drawn about the predictive power of EE in ESRD on haemodialysis patients. Second, the prevalence of depression is high among haemodialysis patients. For example, the incidence of depression in the 200 Turkish haemodialysis patients sample was reported as follows: 42% of patients clinically depressed (BDI score >20), 33% of patients moderately depressed (BDI score 13-20) and 25% of patients not depressed (BDI score<13) (Elal, & Krespi, 1999). In another study, including 88 haemodialysis patients, compared to the renal transplant recipients patients, renal transplant waiting-list patients and renal transplant rejected patients on dialysis in terms of depression level (Akman, Özdemir, Sezer, Micozkadıoğlu, & Haberal, 2004). Depression levels reported 25.2% for the renal transplant recipients (group I); 40% for the renal transplant waiting-list patients (group II); and the 61.3% chronic allograft rejection (renal transplant rejected) patients on dialysis therapy (group III) with the criteria of ≥13 score of BDI. Severely depressed patients' percentages were reported as follows: 7.4%, 10% and 22.6% for the groups I, II and III respectively with the criteria of >24 score of BDI. Finally, depression is reported to be markedly influenced by the social environment (Brown & Harris, 1978), so that the effect of EE, which is a manifestation of the familial environment, cannot be ignored. Therefore, intervention for families and patients based on EE studies are expected to be greatly beneficial to not only the patients but also to the families and the society. Thus, the focus of this study, and the main outcome measure, will not be the course or severity of the condition, but the QOL and well-being of patients and related variables.

1.3.1.4 Perceived Expressed Emotions of Patients

Although, carers' expressed emotion (EE) received much attention in the EE literature, asking the patient perceived criticism about relative's behavior, which is a different approach to assessing EE-related constructs, has not been evaluated extensively yet. In this study patient's perceived EE will also be one of the interests as a variable under the social resources. Hooley and Teasdale (1989) developed the Perceived Criticism Scale (PCS), which was originally used to assess the amount of perceived criticism of depressive patients' spouses. A significant correlation between the scale scores on the PCS scores and the global level of EE (high vs. low) was reported. In addition, nine months after the assessment, researchers found that higher PCS predicted higher rates of relapse in their depressed sample and the predictive power of the PCS was reported to be stronger than the predictive power of the Camberwell Family Interview (CFI) (Hooley & Teasdale, 1989). Moreover, in a study conducted with 101 outpatients with either obsessive compulsive disorder (OCD) or panic disorder with agoraphobia (PDA) and a relative of each of these patients, after exposure based 22 sessions of psychotherapy, perceived criticism was found to be a significant predictor of change in anxiety and depressive symptom severity, even when accounting for comorbidity variables and all other EE-related variables (Renshaw et al., 2001). In another study 54 subjects, who had been diagnosed with either OCD or PDA, treated with in vivo exposure (plus response prevention therapy for OCD). Perceived criticism ratings of patients successfully predicted drop out and posttest outcome in this sample also (Chambless & Steketee, 2001). Therefore, in accordance with the importance of perceived EE, the present study will also use the perceived EE of patients as a measure.

In a renal area, one of the few prospective studies that assessed the patients' perceptions of family and medical staff demands and expectations placed on them regarding their responsibilities for everyday routine functions and medical care at two time points, separated by 2 months (Hatchett, Friend, Symister, & Wadhwa, 1996), showed that perceptions that family and friends did not understand the patient's illness, as measured by discrepant expectations, were much stronger predictors of adjustment than were the social support measure. It was hypothesized that many renal patients report a lack of energy and this may contribute to the interpersonal conflict in the family regarding the fulfillment of routine functions (Symister & Friend, 1996). Then, perceived EE of haemodialysis patients may provide an opportunity to examine and understand of the patients and the illness, and the development of psychological intervention to improve the quality of life (QOL) and the well being of them.

1.3.2 Social Support

Perceived social support will be the fourth resource, placed under social resources that will be explained in the current study. Social support is support or help from other individuals such as friends, neighbors, co-workers, professionals, and acquaintances (DiMattew, & Martin, 2002). Social support also plays an important role in the adjustment to the chronic illness. Further, emotional support has been consistently associated with better quality of life (QOL) (Hegelsons & Cohen, 1996). It was stated that supportive individuals can provide nurturance by helping an individual to cope with the demands of illness. This has been found to be important in helping an individual to cope with the demands of serious illness (Wortman, & Dunkel-Schetter, 1987). Moreover, the absence of a social support network has been tied to a higher incidence and/or severity of depression. It has been reported that social support, namely perceived amount of social support, perceived availability of social support, and satisfaction with perceived social support negatively related to depression in haemodialysis patients (Elal & Krespi, 1999). Gençöz and Astan (2006) conducted a study, to reveal the role of social support in depressive symptoms for haemodialysis patients with different locus of control orientations. They reported that, for the patients with internal locus of control, lower levels of perceived availability of social support was associated with depressive symptoms, on the other hand, for the participants with external locus of control, lower levels of satisfaction from received social support was associated with depressive symptoms. Study of African American women with breast cancer reported that family functioning, defined as the degree to which family members were able to help and support one another, explained significant amount of the variance of patients' QOL (Northouse, Caffey, Deichelbohrer, Schmidt, Guziatek-Trojniak, West, et al., 1999). In another study conducted with depression and anxiety in newly diagnosed adult cancer patients and their adult relatives, it was reported that family functioning variables had significant negative associations with patients' and relatives' depression and anxiety (Edwards, & Clarke, 2004). Moreover, it was also suggested that there is a negative casual relationship between social support and mortality (Kaplan, Sallis, & Patterson, 1993).

Stroebe (2000) categorized social support in five forms and defined them as follows: Appraisal support is where a person is enabled or encouraged to evaluate their own state of health or problem-state, perhaps through provision of information and empowerment. They are then able to put their stressors into context. Emotional support is being loved, cared for, protected, listened to, empathized and sympathized with. It is what people often mean when they say that they have a 'shoulder to cry on'. Esteem support is a feeling that you are valued, or held in esteem, by others. Your own feelings of self-worth and self-esteem are affected by how you perceive others' opinions of you (Stroebe, 2000). If you feel that you are a competent, skilful, worthwhile and a good person, then you are more likely to be able to cope with the demands put upon you,with stressors, for instance. Informational support is often provided in the first instance by a medical professional, in the case of health or illness. It is support in the form of advice and knowledge which can assist the person in doing the right thing to look after themselves. It also takes the form of feedback, so that attending special weight loss classes where you are weighed and told the result of your effort is, amongst other things, a form of informational support. Instrumental support is much more practical. You cannot attend a weight-loss class if you have no one to look after your children while you go, or if you have no money. If someone offers to pay for you for a visit, and will act as a babysitter too, then they have provided instrumental support.

Coyne, Aldwin, and Lazarus (1981) merged some of social support and argued that social support helps to reduce stress in three important ways. First, family members, friends, and acquaintances can provide direct tangible support in the form of physical resources (e.g., lending money, doing grocery, taking care of children). Second, members of one's social network can provide informational support by suggesting alternative actions that may help to solve the stress-producing problem. These suggestions may help the person to look at his or her problem in a new way and thus help to solve it or to minimize its impact. Third, those in the social network can provide emotional support by reassuring the individual that he or she is a cared for, valued, and esteemed person.

The mechanism whereby close relationships protect against illness is not well understood. Several different mechanisms have been suggested relation between social support and health status. Cohen and Syme (1985) proposed at least two explanations for this relationship. Two models which were the main-effects model and the stress-buffering model differ in their views of the importance of the stress.

The stress-buffering model assumes that stress leads to poor health outcomes and that social relationships buffer the impact of stress (Cohen & Syme, 1985). Proponents of this model assume that psychological stress has pathogenic effects. The model describes two different ways in which the model may work. First, social support may intervene in the pathway between the stressful event and the receiver. Members of the social environment may help the person to reinterpret the event or minimize its response by aiding in coping. The second point at which social support may affect stress is between the response to stress and the outcome. Members of the support environment might help to tranquilize the stressed individual or facilitate helpful behaviors, such as medicine compliance, personal hygiene, sufficient rest, and so on. The model, argued that high stress in combination with good social support does not lead to illness. The pathway to illness is through the combination of high stress and low support.

The main-effect model assumes that social relationships influence health outcomes and stress is only one of several factors that impact upon health(Cohen & Syme, 1985). According to the model, stress is not the only important variable influencing health outcomes. Instead, social relationships enhance health and well-being independent of stress. There are varieties of ways that social relationships may directly affect health outcomes. These include variety of processes including modeling, reinforcement, encouragement, and peer influence.

Wills (1997) argued that it is possible that social support may act to avert the onset of illness, to reduce the severity of disease, or to enhance recovery from illness. The effect of social support may occur through physiological or behavioral mechanisms and conceptualized a generic mechanisms of social support on health as follows: "i) Effect on neuroendocrine responses: The presence of perceived as supportive may have an effect for reducing sympathetic-nervous-system arousal through the hypothalamic-pituitary-adrenocortical (HPA) axis. The calming effect of a supportive companion may reduce anxiety and muscular tension in a fairly rapid manner. A linkage of catecholamines to the risk for coroner artery diseases and pregnancy complications has a plausible biological basis too; ii) Effect on self-esteem: The perception of a patient that there are people who care about him/her and can be confided in about problems is related to increased self-esteem; iii) Effect on depression: The role of social support for decreasing depression is thought to occur because the perception of the availability of support decreases the perceived severity of stressors, thus decreasing anxiety, and increases the person's ability to cope with stressful situations (Wills & Cleasry, 1996). Depressive affect states may relate to the health outcomes through reducing immune-system function, increasing disability, or decreasing motivation to comply with medical regimens (Cohen, 1988); iv) Effect on substance use: Person with high social integration and good emotional support show lower rates of smoking and alcohol abuse".

Better understanding of the relationship between degree of social support and the QOL of haemodialysis patients may help better understanding of the patients and better prognosis of the illness.

1.4 Personal Characteristic Resources

1.4.1 Optimism

One of the personal factors that will be examined in this study will be optimism. Optimism, which is part of someone's nature, is referred to as dispositional optimism and may be protective against the potential negative effects of the haemodialysis treatment on patients. Updegraff and Taylor (2000) stated that research has shown that the dispositional optimism can influence how a person deals with a stressful life experience, and may also affect a person's long-term adjustment. Scheier and Carver (1985), in their expectancy value theory, proposed that people remain engaged in efforts to deal with difficult or adverse events to the degree that they expect that success will be likely. In another way, optimists, or people with positive expectations for themselves and the future, should be more likely to keep trying to face adverse events than those with more negative expectations of themselves and the future. According to Scheier and Carver (1985), optimism is good for people because optimistic people strive to achieve their goals since they see them as attainable. Striving (as opposed to not striving) enhances success, since some of the time the attempts to achieve goals will pay off. Pessimists may not choose to make an effort since they may believe that their efforts will be wasted. In the same line the effects of optimism on people's lives after coronary artery bypass surgery examined, with a test of dispositional optimism, called the Life Orientation Test (LOT; Scheier, & Carver, 1985), and the results showed that in terms of the reactions to the surgery itself, optimists did better than pessimists (Scheier, Matthews, Owens, Magovern, Lefebvre, Abbott, & Carver, 1989). Moreover, optimism was associated with a faster rate of physical recovery during the period of hospitalization and with a faster rate of return to normal life activities subsequent to discharge.

Forshaw (2002) argued that the extent of optimism, whether rightly or wrongly so, can influence their interpretations and behavior, and distinguishing between realistic and unrealistic optimism is appropriate. It was stated that realistic optimism would involve a sensible set of cognitions and beliefs about prognosis of the disease, focusing on the better outcomes associated with the disease. Similarly, healthy optimists were defined as those who, because they expect positive outcomes, are less avoidant and more problem-focused in their coping strategies (Scheier & Carver, 1992). Healthy optimists are also defined as people who generally expect positive outcomes, are hopeful, and tend to see problems as manageable rather than catastrophic and because of this view, it was argued that they take positive action to promote their own health (DiMattew, & Martin, 2002).

Result of one study (Leventhal, Benyamini, Brownlee, Diefenbach, Leventhal, Patrick-Miller, & Robitaille, 1997) suggested that pessimists differ in their ability to judge their vulnerability to health problems. In the same study of over five years, pessimists and optimists were asked to rate their health and then were monitored over the years. As a result, the optimists rated their health as better than pessimists did. More interestingly, results of the same study reported that the pessimists claiming to have excellent health were compared with those claiming to have poor health, with the same comparison being made in optimists. Death rates amongst the sample were then looked at. ‘Poor health optimists’ were only 1.5 times more likely to have died than ‘excellent health optimists’, showing that, perhaps the optimists who thought that their health was good were actually being too optimistic. However, ‘poor health pessimists’ were more than seven times likely to have died than, ‘excellent health pessimists’. This demonstrates that when a pessimist rates their health as poor, they tend to be closer to reality than anyone or, equally, that when a pessimist believes that they have poor health, this belief, coupled with a pessimistic disposition, is more likely to lead to negative health outcomes and even health.

In a study of QOL of African American women with breast cancer, optimism was included as a factor that may affect their QOL (Northouse et al., 1999). Optimism was reported to be positively correlated with the family functioning, and QOL, and negatively correlated with the symptoms of distress, and appraisal of illness the higher scores indicating more stressful appraisals. Further, optimism may independently predict positive and negative outcomes and the use of both adaptive and maladaptive coping strategies, and may be a driving force in understanding how some people may grow and benefit from experiences with traumatic life events, while others resist to them. In general, optimism predicts better adjustment to stressful life events (Updegraff, & Taylor, 2000). They also stated that the effects of optimism on adjustment, however, appear to be mediated by the active coping strategies and less reliance on avoidant strategies. Thus, optimism may contribute to better adjustment to a stressful life event by promoting the use of an active, problem focused coping style (for controllable events) and due to the use of positive reinterpretation and acceptance coping strategies (for uncontrollable events), which should both predict overall adjustment as well as perceptions of stress related growth and benefits.

1.4.2 Self-esteem

Self-esteem will be another personal resource of the present study. It was defined as an element of the self-concept, and usually described as self-acceptance or overall affective evaluation of one's worth positively (Baumeister, Campbell, Krueger, & Vohs, 2003). It has been found to be associated with both physical and psychological health (Benyamini, Leventhal, & Leventhal, 2004; Glendinning, 1998; Makikangas, Kinnunen, & Feldt, 2004; Schroevers, Ranchor, & Sanderman, 2003). Moreover, self esteem is associated with less depressive symptoms in chronically diseased persons such as for cancer (Bisschop, Kriegsman, Beekman, & Deeg, 2004; Schroevers, Ranchor, & Sanderman, 2003), and arthritis (Bisschop, Kriegsman, Beekman, & Deeg, 2004; Nagyova, Stewart, Macejova, van Dijk, & van den Heuvel, 2005). In another study, including various chronic physical illness patients from the general population, it was reported that there is a significant direct relationships between various chronic physical illness and personal resources and experience of inescapable loss related to chronic physical illness lowers self-esteem (Vilhjalmsson, 1998).

In reaction to the haemodialysis treatment and its consequences, patients need to make ongoing coping efforts to deal with the effects of the stress caused by the treatment. Resources influence appraisal of the stressor (e.g., coping self-efficacy) or self (e.g., self-esteem) and determine people's ability to cope, and are therefore thought to be important in the adaptation process. Conservation of Resources (COR), included individual difference variables into the model as a component and model proposed that they could be treated as resources (Hobfoll, 1989). According to the model, these differences in the levels of resources may affect how individuals react to stress (or the loss of resources) and how some persons may have better skills at minimizing their losses. As an example, those who have high self-esteem and argued may have a "reserve" of self-worth and confidence upon which they can draw in problematic situations. Thus, those with high self-esteem may not be bothered by the potential loss of time and energy because they know they can cope with such a loss (Hobfoll, 1989).

It might be hypothesized that self-esteem as a resource is important for people confronted with the stressors of a chronic disease and the potential impact of these psychosocial resources depends on the specific constraints imposed by the chronic disease. In other words, the role of these resources might be different across chronic diseases depending on disease-specific characteristics. Thus, this study will examine self-esteem as a personal characteristic resource for haemodialysis patients. Present study proposes that haemodialysis related loss effect self esteem level of patients and thus low self esteem will lower quality of life of haemodialysis patients by declining coping self-efficacy.

1.4.3 Self-efficacy

Perceived self-efficacy refers to people's beliefs in their capabilities to organize and execute the course of action required to deal with prospective situations (Bandura, 1997a). It was stated that "Such beliefs influence what courses of action people choose to pursue, how much effort they put forth in given endeavors, how long they will persevere in the face of obstacles and failure experiences, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress and depression they experience in coping with taxing environmental demands, and the level of accomplishments they realize" (Bandura, 1997b). According to Bandura (1997b), self-efficacy beliefs can originate from different forms of information: performance attainment, vicarious experiences, verbal persuasion, and physiological states. Performance attainment or actual experience of success is considered to be the most influential source of self-efficacy beliefs because they provide the most authentic evidence of whether one is able to perform whatever it takes to succeed. When outcomes are negative, self-efficacy beliefs may diminish (Bandura, 1997b)

Bandura argued that self-efficacy operates as an important determinant of health promotive behavior (1992) and there are two levels at which a sense of personal efficacy plays an influential role in human health. According to him, at the more basic level, people's beliefs in their capability to cope with the stressors in their lives activate biological systems such as stress-induced immunosupression and physiological changes such as blood pressure, heart rate and stress hormones that mediate health and disease. The second level was concerned with the exercise of direct control over the modifiable behavioral aspects of health and the rate of aging.

According to Bandura (1997a) self-efficacy at the second level enhances or impairs human health by effecting lifestyle habits by enabling people to exert some behavioral control over their vitality and quality of health. It was argued that people's beliefs that they can motivate themselves and regulate their own behavior play a crucial role in whether they even consider changing detrimental health habits. Several studies have found that people who believe in themselves when it comes to health behavior are more likely to succeed than people who have low self-efficacy (Bandura, 1997a). In one study, it was found that quitters' self efficacy level were higher than smokers' self-efficacy level (Yalçınkaya, 2001). A high level of self-efficacy has also been related to better disease management, such as using medicines as prescribed, managing stress, and following a recommended diet (Clark & Dodge, 1999) and it was reported that perceived self-efficacy was positively related to quality of life in cancer patients (Turk & Feldman, 1992). In another study, conducted with patients having types 1 and type 2 diabetes, higher self-efficacy in achieving desired health outcomes was associated with quality of life (QOL) and well-being (Eiser, Riazi, Eiser, Hammersley, & Tooke, 2001). In a sample, included patients with asthma, diabetes, and heart failure the role of self-efficacy in performing behavior to control the illness and to achieve desired health outcomes were investigated using SF-12 Short Form Health Survey, and psychological well-being measures. It was reported that self-efficacy with respect to achieving desired health outcomes was found to play a central role (Kuijer & De Ridder, 2003). This line of reasoning suggests a mediating role for self-efficacy.

Conservation of Resources (COR) model emphasizes that resources have both objective and subjective components and it was suggested that individual traits could be investigated as resources effecting different kinds of losses. Regarding this view, in the present research coping self-efficacy as a personal characteristic is classified as a resource. The present study proposes that haemodialysis related loss and gain effect illness related coping self-efficacy and thus patients who have high coping self-efficacy can deal effectively with potential haemodialysis stressors and they can cope better with them (Bandura, 1997a). However, if they believe that they cannot control potential haemodialysis stressors, they are distressed and their level of QOL may be impaired. This study defines haemodialysis related coping self-efficacy as the belief about dealing effectively with potential haemodialysis stressors.

In particular, this research addressed several questions. First, do haemodialysis patients who possess resources have higher coping self-efficacy? Second, do some resources play a more important role than others in having high coping self-efficacy? Third, does coping self-efficacy mediate the effect of resources on levels of QOL?

1.5 Quality of Life

During the past two decades, there has been a dramatic increase in the literature concerning health related quality of life (QOL). Although, there is a growing interest and reports related to QOL, there is no consensus about the definition of QOL. The problems with definition have resulted in a number of different ways of operationalization of QOL. It has been defined as ‘a personal statement of the positivity or negativity of attributes that characterize one’s life’ (Grant, Padilla, Ferrell, & Rhiner, 1990). It has also been defined as ‘the value assigned to duration of life as modified by impairments, functional states, perceptions and social opportunities that are influenced by disease, injury, treatment or policy’ (Patrick, & Erickson, 1993). World Health Organization (WHO) defined QOL as ‘a broad ranging concept affected in a complex way by the person’s physical health, psychological state, level of independence, social relationships and their relationship to the salient features in their environment’ (WHOQOL Group, 1993). Although there is no consensus on definition of QOL, it was stated that the dominant conceptualization views QOL as patient perceived and multidimensional construct including different dimensions (Kuijer & De Ridder, 2003).

Furthermore, because QOL is a vague construct, in line with this, their measure consisted of items that reflected these different dimensions. For example, Fallowfield (1990) defined the four main dimensions of QOL as psychological (mood, emotional distress, adjustment to illness), social (relationships, social and leisure activities), occupational (paid and unpaid job) and physical (mobility, pain, sleep and appetite). Likewise, the researchers who worked on the health batteries operationalized QOL in eight areas, namely, ‘physical functioning, social functioning, role limitations due to physical problems, role limitations due to emotional problems, mental health, energy/vitality, pain and general health perception’, which formed the basic dimensions of their scale (Stewart & Ware, 1992). Ogden (2000) argued that there are differences for measures of subjective health status; but all have one thing in common, which is asking the individuals to rate their health and some of the measures are referred to as subjective health measures; whereas, others are referred to as either QOL scales or health-related QOL scales.

QOL measures have been used for different purposes. For example, they are used as an outcome measure to examine how a range of interventions influences an individual's QOL using repeated measure design. In a trial study of breast reduction surgery, women's QOL before and after the operation was compared (Klassen, Fitzpatrick, Jenkinson, & Goodacre, 1996). The study involved 166 women and their health status was assessed using the Short Form-36 Health Survey (F-36) to assess general QOL. The results showed that the women reported significantly lower QOL both before and after the operation than a control group of women in the general population and moreover, that the operation resulted in a reduction in the women's physical, social and psychological functioning including increase in their psychiatric morbidity.

QOL has also been included as an outcome variable for disease specific randomized controlled trials. It was examined the relative impact of providing either hospital (routine care) or primary care follow-up for women with breast cancer (Grunfeld, Mant, Yudkin, Adewuyi-Dalton, Cole, Stewart, Fitzpatrick, & Vessey, 1996). QOL was assessed using some of the dimensions of SF-36. The results showed that general practice care was not associated with any deterioration in QOL. In addition, it was not related to an increased time to diagnose any recurrence of cancer. As a result, the authors concluded that general practice care of women in remission from breast cancer is as good as hospital care.

There are other studies using QOL exploring its predictors and therefore placed this variable as the end-point. For example, in a comparison study, patients aged 57 years and older with different chronic medical conditions (lung disorder, heart condition, hypertension, diabetes mellitus, back problems, rheumatoid arthritis, migraine, or dermatological disorders) and healthy subjects with similar ages were compared the contribution of the QOL domains, physical, social and psychological functioning to the explanation of overall QOL (Arnold, Ranchor, Sanderman, Kempen, Ormel, & Suurmeijer, 2004). Differences were found between most patient groups and healthy subjects with respect to physical and mental functioning. Lung disorders, heart conditions, back problems, rheumatoid arthritis, and migraine patient groups, scored significantly lower on physical functioning than did healthy subjects. Furthermore, patients with lung disorders and migraine reported lower mental health than did healthy subjects. In another study, international comparisons were made between eight different countries using SF-36 to examine the impact of multiple chronic conditions on populations, with 24 936 participants (Alonso, Ferrer, Gandek, Ware, Aaronson, Mosconi, Rasmussen, Bullinger, Fukuhara, Kaasa, Leplege, & the IQOLA Project Group 2004). Although, scores of individuals with chronic conditions were lower (worse) than those of individuals not reporting any of the conditions studied, arthritis, chronic lung disease and congestive heart failure were reported as the conditions with the greatest difference in physical component scores of QOL. Whereas physical component scores of QOL for hypertension and allergy patients were reported the closest to those individuals with no chronic conditions. These differences in impact were consistent across all SF-36 subscales, which primarily measures physical health and this pattern was observed in all the countries studies. Additionally, self-rated psychological distress of patients with chronic mental illness was compared with the clinician rated psychopathology to predict subjective QOL. Subjective QOL seems to be relatively uninfluenced by clinician rated psychopathology, while self-rated levels of distress have been found to be the strongest predictors (Lasalvia, Ruggreri, & Santolini, 2002). In the present study, QOL was also treated as an outcome variable and predictors of the QOL were investigated within the Conservation of Resources model.

1.6 Aim of the Study

Hobfoll’s (1989) conservation of resources (COR) model offers a theoretical guide for comprehending illness-health literature and has been rarely used in the field of chronic illness. The present study assumed that being an end stage renal disease (ESRD) patient on haemodialysis, as stated in the COR model, has the potential or actual loss of varied valued resources, such as health, money, role in job and family environment, and in social relations.

COR model identifies resources, whose loss and gain result in stress or eustress (i.e., well-being), respectively. Concerning this definition, in this study, besides the illness characteristics and perceived symptom distress related to being haemodialysis patient, socioeconomic and demographic variables, environmental resources which are perceived express emotion, and perceived social support and personal characteristics, namely optimism, self-esteem, and coping self-efficacy will be included as resources.

COR emphasizes that resources have both objective and subjective components and proposed an important role for appraisal. In a similar approach in this study coping self-efficacy, which is defined as the person's beliefs in their capabilities to organize and execute the course of action required to deal with prospective situations (Bandura, 1997a), is also considered as personal resource. However, it is argued that coping self-efficacy works as a mediator between the resources of patients' and outcome variables as illustrated in Figure 1. Outcome measures include psychological well-being and quality of life (QOL) of patients.

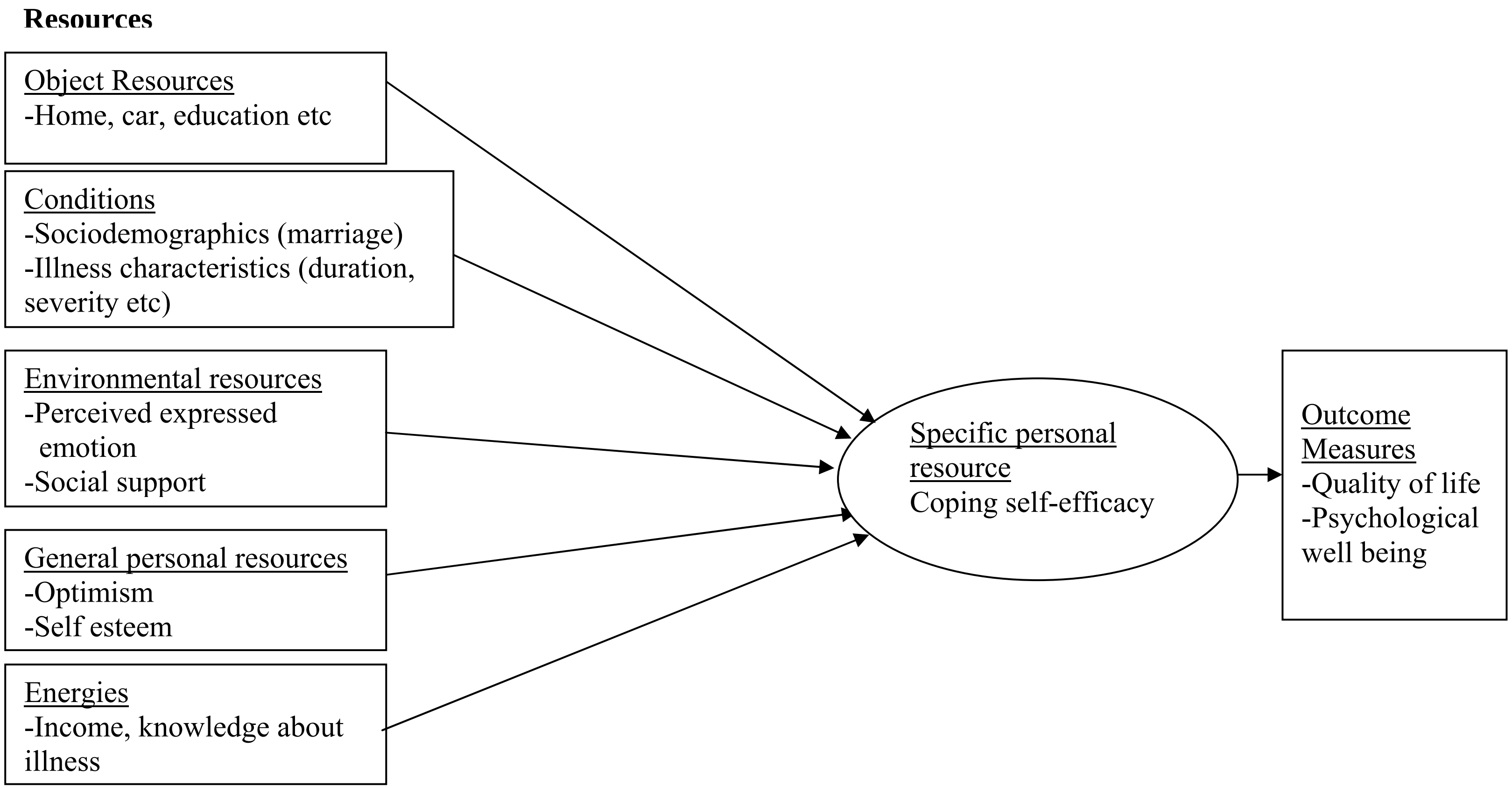

Figure1. *Conceptualization of Resources, Mediating and Outcome Variables (Adapted from Hobfoll's Theory of Conservation of Resources, 1989)*.

In general this research investigated how haemodialysis patients would appraise their coping self-efficacy related to their illness and whether their coping self-efficacy level will mediate the relationships between the resources and the outcome variables. Thus the objectives of this study were to examine the relationships among resources, coping self-efficacy, and outcome variables, and test a multivariate model of factors whether coping self-efficacy exert any mediating effects on these variables in the haemodialysis patients or not. A COR model that included object resources, conditions, personal characteristics, and energies, as well as coping self-efficacy as a mediator, was used as a guide in this study.

This study is the first study to examine resource level change in the domains of both COR model and expressed emotion (EE) construct in a sample of haemodialysis patients who are experiencing high levels of current stress and whose resources are currently under significant challenge. It is also the first study to examine how patients' QOL measures are impacted by resources, which we studied in the form of socioeconomic and sociodemographic variables, illness related conditions, and personal characteristics. Thus, there are several reasons that this study is important. First, Hobfoll's (1989) COR model has been rarely examined in the field of chronic illness and for the first time it will be examined in the haemodialysis patients. Second, number of chronic medical conditions in which it is thought that psychosocial and family factors might play a role in the course or outcome of the illness has been studied using the EE methodology. However, there are not yet any research findings to enable conclusions to be drawn about the predictive power of EE in ESRD on haemodialysis patients. Thus, this is also the first time that the construct of perceived EE will be investigated in the area of QOL of haemodialysis patients. Third, as noted above, relationship of various personal characteristics and illness course and outcome in many medical conditions has not been established yet. This research will provide an opportunity to examine the relationship of optimism, self esteem, perceived social support, and self-efficacy constructs with the QOL of haemodialysis patients. Moreover, hypothesis about the mediational effect of coping self-efficacy will be tested. And fourth, it will be used measures of both QOL and psychological well-being.

Therefore, the results of this study have the potential to offer both theoretical and practical contributions. It is proposed that there is need for explicit and systematic psychological interventions to supplement the benefits accruing from medical interventions of haemodialysis patients. Thus, given the contribution of psychological factors to the subjective well-being and adjustment of ESRD patients, results of this study may have an important role in understanding the adjustment process and development of effective psychological intervention strategies in supporting these patients. The investigation of COR may also lead to interventions that may lead to a change people’s resources or their environments (Hobfoll, 2001). It is proposed that in the theoretical area, the application of COR model to the haemodialysis patients will provide information about understanding the relationship of resources to outcome. Understanding the impact of chronic illness on different aspects of human life and psychological mechanism, which provides knowledge about how this impact occurs may, provide an opportunity to take into consideration the emotional and psychological variables for an effective treatment of patients. In practical area it is argued that intervention for families and patients based on illness specific studies are expected to be greatly beneficial not only to the patients but also to the families and the society. Moreover, it is also argued that the results may contribute to the development of a self-management programme specific to the illness, which may enhance patients' resources to exercise control over their health functioning.

Specifically, the present study examines the following hypothesis:

Hypothesis 1: Age will relate to QOL, such that older persons will report lower levels of well-being and QOL.

Hypothesis 2: Socioeconomic variables such as, level of education, family income, housing tenure, car ownership and employment status will relate to well being and QOL such that higher levels of education and family income, house and car ownership and employment will relate to higher well being and QOL.

Hypothesis 3: As illness characteristics, duration of kidney disease and haemodialysis treatment, and knowledge about illness will relate positively to well-being and QOL, whereas, duration of hospitalizations in the previous year, and presence of additional diagnoses will relate negatively to well being and QOL.

Hypothesis 4: Perceived Criticism/Hostility(C/H) component of expressed emotion will relate negatively to well-being and QOL.

Hypothesis 5: Optimism will relate positively to well-being and QOL.

Hypothesis 6: Self esteem will relate positively to well-being and QOL.

Hypothesis 7: Perceived social support will relate positively to well-being and QOL.

Hypothesis 8: Coping self-efficacy will relate positively to well-being and QOL.

Hypothesis 9: Demographic and socioeconomic variables, illness characteristics, perceived C/H, optimism, self esteem, and perceived social support will relate to well being and QOL s described above, and coping self-efficacy mediates these relationships.

CHAPTER II

PILOT STUDY

2.1 Introduction

In this section, for the current study two scales were developed. The first one was Symptom Distress Scale (SDS), which aimed to evaluate the occurrence of various stressful conditions for the dialysis patients. Second one was Coping Self-Efficacy Scale (CSES), which was constructed in order to assess patients' beliefs about dealing effectively with potential stressors. Additionally, Expressed Emotion Scale of Berksun (1992), which was originally developed for the caregivers' of the patients, was changed to assess patient's perceived expressed emotion level (e.g., how patients perceive the expressed emotion characteristics of their caregiver). For evaluating the psychometric properties of the three scales, a pilot was study conducted. The Well-being Questionnaire-12 (WBQ-12) was used for this purpose. In addition to method section, result and discussion section of the pilot study are presented below.

2.2 Method

2.2.1 Subjects

53 haemodialysis patients from the nephrology clinics and outpatient clinics of Etlik İhtisas Hospital, in Ankara Turkey, accepted to participate in the pilot study. Table 1 presents sociodemographic and illness related characteristics of the sample.

Table1. *Sociodemographic and Illness Related Characteristics of the Sample*

	N	%	Mean	SD	Range
Age			43.92	17.2	19-80
Gender					
Male	26	49.1			
Female	27	50.9			
Education					
Illiterate	3	5.7			
Primary	28	52.8			
Secondary	11	20.8			
High school	11	20.8			
Marital status					
Single	14	26.4			
Engaged	1	1.9			
Married	32	60.4			
Divorced	1	1.9			
Widowed	5	9.4			
Having a child					
Yes	36	67.9			
No	17	32.1			
Number of children			3.28	1.43	1-7
Mean age of the youngest child			21.26	10.24	2-42
Employment status					
Blue-color	6	11.3			
Housewife	19	35.8			
Retired	24	45.3			
Students	1	1.9			
Unemployed	3	5.7			
Number of family members			5.64	2.96	2-19
Income level of the family (YTL)			658	350	150- 1800
House ownership status					
Rental	21	39.6			
Own house	29	54.7			
Belongs to a family	3	5.7			
Car ownership status					
Yes	14	26.4			
No	39	73.6			
Smoking status					
Yes	5	9.4			
No	48	90.6			

Table1. *(continued)*

	N	%	Mean	SD	Range
Having a caregiver					
Yes	48	90.6			
No	5	9.4			
Caregivers					
Husband or wife	25	47.2			
Mother	13	24.5			
Father	1	1.9			
Daughter	8	15.1			
Son	1	1.9			
Sisters and brothers	1	1.9			
Hospitalization at least once during the last year					
Yes	34	64.2			
No	19	35.8			
Number of hospitalization			2.10	1.54	1-7
Presence of additional chronic illness	26	49.1			
Yes	27	50.9			
No					
Additional chronic illnesses	10	18.9			
Diabetes	7	13.2			
Cardio-vascular disease	9	17.1			
Others					
Renal transplantation					
Yes	3	5.7			
No	50	94.3			
Duration of renal transplantation till rejection (months)			29.0	44.83	3-96
Duration of kidney disease (years)			7.94	9.21	1-47
Duration of dialysis treatment (months)			16.48	.33	1-168
Number of haemodialysis sessions weekly)			2.89	.46	2-4

Table1. *(continued)*

	N	%	Mean	SD	Range
Hours of haemodialysis per day			3.97	.16	3-4
Days of hospitalization (last year)			38.42	24.94	1-113
Knowledge about etiology of illness			5.24	3.13	0-10
Knowledge about treatment of illness			5.10	3.23	0-10
Knowledge about prognosis of illness			4.58	3.39	0-10
Self-efficacy related to physical burden of illness(visual analog scale score)			5.04	2.91	0-10
Self-efficacy related to psychologicalburden of illness (visual analog scale score)			5.18	3.15	0-10
General self-efficacy related to illness (visual analog scale score)			4.41	3.04	0-10

2.2.2 Instruments

The research instrument used in data collection of pilot study consisted of six parts, namely, Demographic and Illness related Information Form, Symptom Distress Scale(SDS) and Coping Self-efficacy Scale (CSES), The Well-being Questionnaire-12 (WBQ-12) and Perceived Expressed Emotion Scale(PEES) of patients.

2.2.2.1 Socioeconomic and Demographic Variables Information Form

Age, gender, level of education, marital status, number of the family members, family income, house and car ownership and employment status were asked. Additionally, whether they have a child; if yes, number of children and the age of the youngest child, were also included in this form. Moreover, availability of caregivers and relationship to the patient were asked. Questions related to smoking status, duration, and daily comsumption rate of smoking and three questions about self-efficacy level related to physical burden of illness, self-efficacy level related to psychological burden of illness and general self-efficacy level related to illness were measured via visual analog scales ranging from 0 to 10 (See Appendix A for the Socioeconomic and Demographic variables Information Form).

2.2.2.2 Illness Characteristics Information Form

Clinical and dialysis related information was obtained from the participants and via chart review. Medical characteristics, year of kidney disease, possible etiology of renal failure, duration of haemodialysis treatment (months), frequency of haemodialysis treatment per week, duration of haemodialysis treatment per session, presence and duration of end stage renal disease related hospitalizations in the previous year, presence and names of additional diagnoses were included in the study. Knowledge about etiology, treatment and prognosis of illness were measured via visual analog scales ranging from 0 to 10. Furthermore, information related to the presence, number and duration of chronic rejection was obtained. Chronic rejection was defined as the after renal transplantation, rejection of the new kidney by body and to return dialysis treatment (National Institutes of Diabetes and Digestive and Kidney Disease, National Institute of Health, 2006) (See Appendix A for Illness characteristics Information Form).

2.2.2.3 Symptom Distress Scale (SDS)

Symptom Distress Scale (SDS) was developed for evaluating the occurrence of distress, namely the physiological, psychological and psychosocial stressors of haemodialysis patients. It comprised of a list of 35 different potential stressors, that are seen to represent either a predominantly biological/somatic (e.g. muscle cramps, nausea, pain, fatigue) or a predominantly psychological/psychosocial type (e.g. limitations of social contacts, being dependent on health care personnel, uncertainty regarding the future), were used for identifying the stressors of patients. The stressors were selected for the list included several of those reported in the literature to be prevalent in various groups of chronic patients (Andersson & Albertsson, 2000; Long, 1989; Petrie, 1997; Symister & Friend, 1996), in addition to by asking four nephrologists, and six nurses, working at a haemodialysis unit, having theoretical knowledge on problems of haemodialysis patients. This process resulted in thirty-eight items, and then items were reduced to number of thirty five by two professionals, in order to clarify the expressions of items. The patient was asked to indicate for each factor whether he or she had experienced it during the last three months, and response format was dichotomous (yes or no). Also participants had a possibility of listing and evaluating additional stressors they think to be lacking in the original set. Higher scores of the SDS implied lower levels of distress of haemodialysis patients.

However, for the main study, in order to increase the variability of the answers, the response alternatives were changed into a 3 – point scale, ranging from (1) not at all to (3) very much. Moreover, for the main study items of SDS were recoded so that higher scores of the SDS implied higher levels of distress of haemodialysis patients (See Appendix B for SDS).

2.2.2.4 Coping Self-Efficacy Scale (CSES)

The degree of coping self-efficacy of subjects was evaluated with the help of items of SDS. For the coping self-efficacy scale (CSES), for each symptom distress scale (SDS) item (i.e., fatigue, nausea, impaired mobility, inability to take care family needs etc.), the respondents rated the perceived coping self-efficacy with that difficulty. Subjects estimated their coping self-efficacy, belief about dealing effectively with potential stressors (Bandura, 1997a), of each factor on a 1-3-point scale (1, not at all; 3 very much at all) (See Appendix B for CSES).

2.2.2.5 The Well-being Questionnaire-12 (WBQ-12)

The Well-being Questionnaire-12 (WBQ-12) was designed to evaluate the general mental health of chronically ill medical patients (Pouwer, Snoek, Van Der Plaeg, Ader, & Heine, 2000). WBQ-12 is an easy to use self-report measure and was developed as a screening test for mental health problems among chronic medically ill patients, not for diagnostic purposes. The original version of the scale consists of 22 items and four factors, which are depression, anxiety, vitality and positive mental health (Bradley, 1994).

Twelve items short form of the scale includes three factors namely positive mental health, negative mental health and vitality, each consisting of four items. In a study with 1472 German diabetes patients, the scale has been found to have high internal consistency reliability (alpha = .88), and test retest reliability of the scale has varied between .66 and .88 in respect to different factors. As support for the concurrent validity, WBQ-12 was negatively correlated with the Hospital Anxiety and Depression Scale (HADS) and State-Trait Anxiety Inventory (STAI).

The Turkish version of the WBQ-12 was validated with 60 Turkish end stage renal disease patients (Sağduyu, Şentürk, Aydın, & Özel, 2003). Items were rated on a 4-point scale, ranging from 0 (0; never) to 3 (3; always). Items (item number of 1,2, 3,4,6,7) that had negative factor loadings were recoded (0; always to 3; never). Higher scores of the test implied higher probability of psychological wellness. It was reported that Cronbach's alphas and test retest correlation coefficients of the scale were .87 and .80 respectively. Item total correlation of the scale has varied between .28 and .59. According to the cut of points of the HADS, as criterion validity WBQ-12 successfully differentiated between the high and low depression and anxiety groups. When 9/10 was used as a cut-off score on the WBQ-12, it was found that the true positive rate was .87; true negative rate was .73, and positive predictive power was .50 and negative predictive power was .92.

For the current study, internal consistency reliability of WBQ-12 was found to be .78 and item total correlation of the scale ranged between .26 and .58 which was quite similar to Sağduyu et al.'s (2003) study of the WBQ-12. (See Appendix C for WBQ-12).

2.2.2.6 Perceived Expressed Emotion Scale (PEES)

The perceived expressed emotion of patients (PEES) was assessed to be measured with the Expressed Emotion Scale (EES) of Berksun (1992). The scale was originally developed to measure the expressed emotion (EE) level in interpersonal relations and used for the caregiver's of the patient. EES contains 41 items and uses a dichotomous format for responding, with yes (yes; I agree; 1) and no (no; I disagree; 0). The internal reliability coefficient of the scale was .89 (Berksun, 1992). Although, after initial factor analysis, the author obtained 12 factors, subsequent analysis showed that two factors solution, explaining 42.8% of variance was more suitable. Factors were labeled as Criticism /Hostility(C/H) and Emotional Over Involvement (EOI). In the current study EES was changed to measure the patient's perceived expressed emotion level. Expressions of items were changed to reflect the patients' evaluation of the caregivers instead of caregivers' evaluations (e.g., instead of 'When we are together I only show attention to him/her and nothing else'; item changed to 'When we are together he/she only shows attention to me and nothing else'). Higher scores show higher levels of perceived EE. Patients were required to name the person, who gives the major care and then they rated the major caregiver using the PEES (See Appendix D for PEES).

The same instrument was used to identify the predictors of components of EE in major caregivers of Turkish schizophrenic patients (Karanci & İnandılar, 2002). They reported that scale had two interpretable factors, namely, EOI and C/H, similar to original one. Cronbach Alphas values for EOI and C/H were reported as, .84, and .87, respectively.

2.2.3 Procedure

For the pilot study approval from the authorities of the hospital administration was received. Participants of the pilot study were patients with a renal failure being treated at the nephrology clinics and peritoneal dialysis outpatient unit of S.B. Ankara İhtisas Hospital. Potential respondents were approached and after they were provided information regarding the study, they were asked whether they would be willing to fill in a questionnaire. If they agreed to participate, the researcher handed them the questionnaire Assistance was provided by the researcher to the participants who needed help in reading and/or writing to complete the questionnaires. Confidentiality was assured and they were informed that they could withdraw at any time, without any interference with their treatment or care. The patient filled in, a set of questionnaires developed for the pilot study about causal antecedents and mediational variables of the main study. The patients also completed, prior to this, a questionnaire concerning sociodemographic and illness related data. In order to control for the sequencing effect, counterbalancing was done for the order of the questionnaires of the study.

2.2.4 Statistical Analysis

Prior to the statistical analysis data were cleaned up. As a first step data were tested for accuracy by using the frequencies to see the range of the data and missing data for each variable.

As a second step data were converted to z-scores and the cases with -3 and +3 scores were defined as univariate outliers. One outlier related to the number of the family members (number of the family member=19), two outliers related to the years of kidney disease (duration of kidney disease =37 and 47 years), and two outliers related to the duration of the haemodialysis treatments (duration of HD treatments= 132 and 168 months) were found. However, because no limitation criteria concerning to patient characteristics for the inclusion of the study was selected, related to number of the family members, duration of kidney disease and duration of haemodialysis treatments, they were not deleted.

As a third step multiple regression analysis were run to find out multivariate outliers. In regression analysis, dependent variable was subject number and independent variables were the variables that were being looked for multivariate variables. Regression created a new variable named Mahalanobis-1. Then data file were sorted by Mahalanobis variable. After taking the α= . 01 and df=10, critical chi-square value was found from the chi-square table (critical chi-square value=23.21). Each score under Mahalanobis-1variable were compared with critical chi-square value. There were no scores higher than critical value, thus there were not any multivariate outliers.

Normality of the data was tested using kurtosis, skewness and histogram at fourth step. Distribution of some of the variables related to sociodemographic and illness related variables (e.g. working status, presence of caregiver, hours of haemodialysis per day etc) were found to be non- normal. However it was thought that the reason for this non-normality was the nature of the sample, which consists of the chronically ill people.

Linearity was tested with the scatter plot at fifth step, and finally, multicollinearity and singularity were tested using correlation matrix by computing Pearson correlation coefficient between all variables. None of the correlations between two variables was equal or above .90.

After data cleaning, descriptive statistics of the sociodemographic and illness related variables of the study, correlation matrix, reliability and validity for the SDS, CSES and PEES were conducted.

2.3 Results

2.3.1 Factor Analysis of Symptom Distress Scale (SDS)

In order to examine the factor structure of the Symptom Distress Scale (SDS) principal components factor analysis, using Varimax rotation was conducted. Although, the scree plot indicated that eleven factors, two criteria were used to determine the number of factors to rotate: a priori hypothesis that the measure consists of two constructs, and the interpretability of the factor solution. Consequently, two factors were rotated using a Varimax rotation procedure. The rotated solution, as shown in Table 2, yielded two interpretable factors, explaining 32.85 % of the total variance. The factors were labeled as, “Physical problems” and “Psychosocial problems” of dialysis patients. Physical problems factor explained 17.06 % of the variance, and psychosocial problems factor explained 15.79 % of the variance. 14 items were included under the first factor, and 17 items were included under the second factor. Items that had loadings less than .20 were excluded from further analysis (Item about drinking too much water was excluded for this reason).

Coefficient alphas were computed to obtain internal consistency estimates of reliability for two factors of SDS. Three items were deleted because of the low correlations with the SDS (item about sexual problems, .18; items about job related problems, -.14, and -.11). The alpha for the physical problems and psychosocial problems scales were .83 and .86, respectively. The overall alpha reliability of the scale was found to be .90. Item-total correlations varied from .29 and .66 for the physical problems and .23 and .64 for the psychosocial problems. Item-total correlations of the SDS varied from .25 to .71.

Subsequently, two factor scores were calculated by summing up the scores of items belonging to each factor in order to obtain total scores for the physical problems and psychological problems scales. Then divided by the number of the items of factors to obtain mean factor scores so that we can compare the distress experienced in the two domains.

Consistent with the expectations, WBQ-12 negatively correlated with the total SDS ($r = -.49$, $p < .01$), SDS factor for physical problems ($r = -.45$, $p < .01$), and factor for psychosocial problems ($r = -.40$, $p < .01$). Additionally, factors of physical and pscyhosocial problems correlated positively ($r = .53$, $p < .01$).

Table 2. *Factor Structure of Symptom Distress Scale (SDS)*

	Factor1 (physical problems) Alpha = .83 % variance = 17.06	Factor2 (psychosocial problems) Alpha = .86 % variance = 15.79
Vomiting	**.74**	.02
Impaired mobility	**.70**	.14
Fatigue	**.70**	.11
Nausea	**.67**	-.25
Drowsiness	**.66**	.04
Difficulty with a movement	**.63**	.33
Pain	**.59**	.19
Lack of appetite	**.57**	.12
Inability to work long hours	**.49**	.20
Muscle cramps	**.43**	.22
Fear of injection pain	**42**	.22
Insomnia	**.36**	.13
Incapability to do house works	**.34**	.20
Itching	**.29**	.23
Financial problems	.10	**.70**
Feeling oneself unattractive	.14	**.66**
Dependence to the haemodialysis machine	-.01	**.65**
Being dependent on haemodialysis care personnel	.18	**.62**
Uncertainty regarding the future	-.05	**.61**
Memory problems	-.16	**.57**
Inability to take care of family needs	.41	**.56**
Difficulty to control family relations	.48	**.55**
Change in the responsibility with the family roles	.30	**.54**
Long duration of the haemodialysis	.28	**.53**
Inability to maintain relations with friends and relatives	.32	**.43**
Being dependence on family members	.13	**.42**
Noncompliance to dieting	.27	**.40**
Noncompliance to medication	.12	**.39**
Inability to travel and being house bond	.27	**.37**
Attention problems	.20	**.26**
Fear of death	.21	**.25**
Excluded items:		
Drinking too much water	.13	.11

2.3.2 Factor analysis of the Coping Self-Efficacy Scale (CSES)

Degree of coping self-efficacy of subjects was evaluated with the items of Symptom Distress Scale (SDS). For each item degree of perceived coping self-efficacy was obtained. Subjects estimated their coping self-efficacy namely their beliefs about dealing effectively with potential stressors (Bandura, 1997a), for each stressori on a 1-3-point scale (1, not at all; 3 very much at all). The results of the factor analysis for SDS, presented in the previous section, were used for calculating the Coping Self Efficacy Scale (CSES) for physical and psychosocial factors.

Coefficient alphas were computed to obtain internal consistency estimates of reliability for CSES, which had a high internal consistency (alpha = .93). Item-total correlations varied from .08 and .75 for the CSES.

Concerning the factor structure of SDS, in order to obtain internal consistency estimates of reliability for the same two factors of CSES coefficient alphas were computed. The alpha for the coping self-efficacy with physical problems and coping self-efficacy with psychosocial problems scales were the same, .83. Item-total correlations varied from .18 and .63 for the coping self-efficacy with physical problems and .17 and .69 for the coping self-efficacy with psychological problems.

Subsequently, mean factor scores of each factors of CSES were calculated by summing up the scores of items and dividing them by the number of the items belonging to each factor in order to compare the coping self-efficacy perceived in two domains.

Moreover, the correlation coefficients between WBQ-12 and total CSES were

.29 ($p < .05$). WBQ-12 also positively correlated with coping self-efficacy with physical problems and coping self-efficacy with psychosocial prolems, .30 ($p < .05$) and .27($p < .05$) respectively. Additionally, SDS and CSES correlated negatively ($r = -.47$, $p < .01$).

2.3.3 Factor analysis of Perceived Expressed Emotion Scale (PEES)

The psychometric properties of Perceived Expressed Emotion Scale (PEES) in a haemodialysis patient sample were also examined in this pilot study. Scale was subjected to principal components factor analysis. First analysis resulted in 12 factors with the criteria of eigenvalues greater than 1.00, explaining 75.71% of variance. Based on the priori hypothesis that the measure consists of two constructs, and the interpretability of the factor solution, consequently, two factors were rotated using a Varimax rotation procedure. Emerged factors were named as "Emotional Over Involvement (EOI)" and " Criticism/Hostility(C/H)". First factor includes 25 items and explained 22.56% of variance and factor loadings ranges between .27-.85. The second factor had 15 items and explained 12.11% of variance and factor loadings ranged between .18-.62. One of the items did not load under either of the factors because of less than .10 loading level of the item. Cronbach alpha coefficients of EOI and C/H factors were .93 and .79 respectively. Table 3 presents rotated solution with the yielded two interpretable factors. Coefficient alpha was computed to obtain internal consistency estimates of reliability for the total PEES, which was .81.

Subsequently, items (item number of 2, 6,10, 11, 13, 17, 24) that had negative factor loadings were recoded, so that Yes= 0 and No= 1. Then, mean factor scores of

EOI and C/H were calculated by summing up the scores of items and divided by the number of the items belonging to each factor.

In an expected way, WBQ-12 negatively correlated with the C/H (r = -.27, p < .05), and positively correlated with EOI (r = .26), although correlation coefficient did not reach the significance level.

Table 3. *Factor Structure of Perceived Espressed Emotion Scale (PEES)*

	Factor1 (Emotional Over Involvement) Alpha = .93 % variance=22.56	Factor2 (Criticism/Hostility) Alpha = .79 % variance = 12.11
37. It gives him/her pleasure to attend to everything about me	**.88**	-.11
16.When we are together he/she only shows attention to me and nothing else	**.78**	.11
15. He/she cherish me	**.74**	-.17
4.For him /her, my wishes are more important than the rest of the families’	**.73**	
41.Usually he/she gives emotional support when I feels down	**.72**	-.14
39. He/she tries to talk with me when I am uneasy and unhappy	**.72**	-.25
31.His/her mind is always full of me, he/she can not think of anything else	**.70**	-.13
38.When I get angry he/she tries to soothe me, he/she doesn’t stay away from me	**.67**	-.18
30.We get on well	**.66**	-.29
23. He/she attends everything about me	**.63**	.14
14. He/she listens to all my ideas	**.59**	-.36
6. My existence makes him/her crazy	**-.58**	.23
22. He/she worries even for a slightest thing that may happen to me	**.57**	-.15
12. He/she is the only one in our family who takes care of everything about me	**.57**	.14
13. He/she hurts and offends me	**-.56**	.48
10. We can not get along with him/her	**-.53**	.35
36. When he/she faces with a difficulty he/she can cope with it	**.53**	.19
28. He/she thinks that we are alike	**.47**	.19
27. My hospitalization makes him/her desperate and he/she cannot apart from me	**.44**	-.13
8. He/she likes and admires some aspects of me	**.41**	-.25
17. He/she thinks that I interfere with his/her life	**-.39**	.31
11. He/she no longer cares for me and leaves me alone	**-.38**	.32

Table 3. *(continued)*

	Factor1 (Emotional Over Involvement) Alpha = .93 % variance=22.56	Factor2 (Criticism/Hostility) Alpha = .79 % variance = 12.11
3. He/she enjoys talking with me	**.33**	-.12
24. Sometimes, he/she wishes that he/she can get rid of me	**-.32**	.22
2. He/she doesn't believe that I am ill	**-.30**	.18
21. He/she wants me to behave in ways he/she expect me to behave	-.12	**.70**
20. He/she doesn't like the way me dress up and he/she tells this to me	.02	**.63**
19. He/she doesn't like anything I do	-.16	**.63**
32. He/she frequently criticizes me so that I correct myself	-.19	**.61**
1. He/she thinks that I do certain things on purpose and this makes him/her angry	-.16	**.59**
34. He/she thinks that I give a lot of trouble to him/her	-.28	**.52**
7. He/she keeps on thinking about what he/she did wrong	.10	**.49**
35. He/she thinks that without me, everything would be fine	-.39	**.46**
18. Due to my illness he/she feels that the whole world collapsed on him/her	.22	**.46**
26. He/she often warns me to do what I do in an orderly and systematic manner	-.07	**.46**
33. He/she wants to keep away from me	-.36	**.42**
5. He/she tries to learn everything, even private matters about me	.13	**.33**
40. He/she thinks that I exaggerates my illness	-.20	**.31**
25. He/she keeps away from me when I am uneasy and unhappy	-.02	**.27**
29. He/she wants me to correct my mistakes	-.12	**.21**
9. He/she frequently gives me advice	-.01	.02

2.3.4 Means, Standard Deviations, and Ranges of the Variables Used in the Study

Central tendency and dispersion scores of the variables of the study were computed in order to present general information about the measures of the study. Table 4 presents means, standard deviations, and the ranges of the variables used in the study.

Table 4. *Means, Standard Deviations, and the Ranges of the Measures*

Variables	Mean	SD	Range
WBQ-12	1.61	.61	.42 - 2.83
Physical problems	.65	.26	.00 - 1.00
Psychosocial problems	.52	.27	.00 - 1.00
Coping self-efficacy with physical problems	2.11	.42	1.14 - 2.93
Coping self-efficacy with psychosocial problems	2.18	.39	1.24 - 3.00
EOI	.82	.22	.08 - 1.00
C/H	.37	.23	.00 - .93

Note. WBQ-12 = Well Being Questionnaire-12; EOI= Emotional over involvement; C/H = Hostility/Criticism.

2.3.5 Correlations Among the Variables in the Study

Table 5. *Correlation Matrix of the Variables Used in the Study*

		2	3	4	5	6	7
1	WBQ-12	.26	-.27*	-.45**	-.40**	.30*	.25
2	EOI		-.37 **	-.02	-.05	.11	.13
3	C/H			.20	.31*	-.14	-.25
4	Physical problems				.53**	-.50 **	-.36 **
5	Psychosocial problems					-.19	-.46**
6	Coping self-efficacy with physical problems						.68**
7	Coping self-efficacy with psychosocial problems						

* *p*< .05, ** *p*< .001.

(1) Well-Being Questionnaire-12, (2) Emotional Over Involvement,
(3) Criticalness / Hostility.

2.4 Discussion

The aim of this section was evaluating the psychometric properties of the Symptom Distress Scale (SDS), Coping Self-Efficacy Scale (CSES), and Perceived Expressed Emotion Scale (PEES). SDS and PEES were subjected to a factor analysis and two factors were emerged for both scales. Coefficient alphas were computed for the factors of SDS, CSES and PEES, as well as the overall alpha reliability of the scales. Results of the factor analysis for the PEES were similar to Expressed Emotion Scale of Berksun (1992) and the results of the study of Karanci and İnandılar (2002). Moreover, item-total correlations for the factors and the total scales were also found at satisfactory level. As an expected way, correlations of WBQ-12 with the factors of SDS, CSES and PEES, as well as the overall scales of SDS and CSES provided support for the concurrent validity of the SDS, CSES, and PEES scales. Thus, it was thought that SDS, CSES, and PEES were reliable and valid scales to use in the main study.

CHAPTER III

MAIN STUDY

3.1 Method

3.1.1 Subjects

Haemodialysis patients with renal failure attending the S.B. Ankara Etlik Ihtisas Hospital dialysis unit was invited to join the study as participants. Diagnostic and medical information of patients was obtained from the haemodialysis physician specialist’s caseload records, unit lists and the hospital medical records. Both existing and new cases were included. Of the larger pool of patients (N=132), 106 (80.3%) completed the research instruments during the haemodialysis session. The demographics for this group were similar to those who did not participate for the study.

Table 6 presents the socio-demographic and illness related characteristics of the sample.

Table 6. *Sociodemographic and Illness related Characteristics of the Sample*

	N	%	Mean	SD	Range
Age			48.51	14.97	18-83
Gender					
Male	65	61.3			
Female	41	38.7			
Education					
Illiterate	3	2.8			
Primary	68	64.2			
Secondary	13	12.3			
High school	17	16.0			
University	5	4.7			
Marital status					
Single	14	13.2			
Married	81	76.4			
Widowed	11	10.4			
Having a child					
Yes	87	82.1			
No	19	17.9			
Number of children			3.05	1.50	1-8
Mean age of the youngest child			21.63	10.50	2-52
Employment status					
Blue-color	7	6.6			
Professional	3	2.8			
Housewife	35	33.0			
Retired	56	52.8			
Students	2	1.9			
Unemployed	3	2.8			
Number of family members			3.99	1.48	1-8
Income level of the family (YTL)					
Less than 400 YTL	13	12.3			
400-500 YTL	35	33.0			
500-800 YTL	36	34.0			
More than 800 YTL	22	20.8			
House ownership status					
Rental	35	33.0			
Own house	62	58.5			
Belongs to a family	9	8.5			

Table 6. *(continued)*

	N	%	Mean	SD	Range
Car ownership status					
Yes	35	33.0			
No	71	67.0			
Having a caregiver					
Yes	100	94.3			
No	6	5.7			
Caregivers					
Spouse	66	62.3			
Mother	13	12.3			
Father	3	2.8			
Daughter	12	11.3			
Son	6	5.7			
Hospitalization at least once during the last year					
Yes	18	17.0			
No	88	83.0			
Presence of additional chronic illness					
Yes	40	37.7			
No	66	62.3			
Additional chronic illnesses					
Diabetes	18	17.0			
Cardio-vascular disease	15	14.2			
Others	7	6.5			
Renal transplantation					
Yes	3	2.8			
No	103	97.2			
Duration of renal transplantation till rejection (months)			56.7	34.08	36-96
Duration of kidney disease (years)			8.39	6.92	1-35
Duration of dialysis treatment (months)			60.98	49.89	2-240
Number of haemodialysis sessions weekly)			3.00	.00	3-3
Days of hospitalization (last year)			42.33	37.26	5-150
General knowledge about illness			5.55	2.12	0-10

3.1.2 Instruments

In addition to scales used in the pilot study which were demographic and illness related information form, Symtom Distess Scale (SDS), Coing Self Efficacy Scale (CSES), Well Being Questionnaire-12 (WBQ-12), and Perceived Expressed Emotion Scale (PEES), four more scales were used in the main study. Detailed information related to the instruments used in the pilot study was given in the method section of the pilot study.

Additional instruments used to collect data in the main study were; The Life Orientation Test (LOT), Rosenberg Self-Esteem Scale (RSES), Multidimensional Scale of Perceived Social Support (MSPSS) and the Short Form-36 Health Survey (SF-36). For each instrument used in the main study detailed information is provided below.

3.1.2.1 Socioeconomic and Demographic Variables Information Form

This form included sociodemographic and illness related variables, described in the pilot study section. The format, appearance or wording of some of the questions that participants had a difficulty in understanding were changed in order to achieve a more user friendly format for the main study (e.g. questions about members of a patient’s family, questions about income level of the patient’s family). Questions related to smoking status, duration, and daily consumption rate of smoking of subjects had a low correlation with the other variables of the pilot study. Thus they were not included in main study. Moreover, three questions about self-efficacy level, related to physical, psychological and general burden of illness measured via the visual analog scale, were also deleted, because of low correlation with the CSES (See Appendix E for Socioeconomic and demographic variables Information Form).

3.1.2.2 Illness Characteristics Information Form

Clinical and dialysis related information was obtained from chart reviews and from the participants. Because of the lack of sufficient and clear information related to the etiology of renal failure in the pilot study, questions related to the etiology were omitted in the main study. Moreover, the question about duration of haemodialysis per session will not be included in the main study, due to homogeneity of answers in the pilot study. In order to achieve a more user friendly format for the main study, knowledge about etiology, treatment and prognosis of illness were measured on a 10-point scale with a response alternatives ranging from, lack of information (0) to having enough information (10), instead of the visual analog scales (See Appendix E for Illness characteristics Information Form).

3.1.2.3 The Life Orientation Test (LOT)

Optimism was measured with The Life Orientation Test (LOT), which measures dispositional optimism and consists of eight items (plus four filter items) (Scheier, & Carver, 1985). Four of the items are positively worded (e.g., ‘‘In uncertain times, I usually expect the best’’), and another four are negatively worded (e.g., ‘‘I hardly ever expect things to go my way’’). Response alternatives were answered on a 4-point scale with 1 (1 disagree a lot) and 4 (4 agree a lot). Scores on the negatively worded items are typically reversed (1; agree a lot, and 4; disagree a lot) and summed with scores on the positively worded items to obtain a single summary score which high score indicates the higher level of optimism. The LOT has been shown to have positive correlation with internal control and self-esteem and negative correlations with depression and hopelessness. Test-retest reliability across a 4-week period was reported to be .79 (Scheier & Carver, 1985).

Aydın and Tezer (1991) examined the psychometric properties of LOT in a Turkish sample for 392 subjects. The instrument consisted of 12 items and the response format was a 5-point scale with 0 (0 disagree a lot) and 4 (4 agree a lot). Negatively worded four items are reverse coded (0; agree a lot, and 4; disagree a lot). Four items were filter items and ranges of the scores of the scale were between 0 and 32, with higher scores showing higher levels of optimism. This study supported the use of the scale for a Turkish sample. Cronbach's alphas and test retest correlation coefficients of the scale were reported as .72 and .77 respectively. Consistent with the expectations, Aydın and Tezer (1991) showed that optimism was negatively correlated with the depressive symptamatology level of subjects and it was given as a support for the concurrent validity of the scale.

Averaged scale scores are obtained by summing the items of the scale and dividing them by the number of items of the scale and used for the further analysis of the study. In the main study, the internal consistency reliability of LOT was found to be .70, which was quite similar to Aydın and Tezer's (1991) study (See Appendix F for LOT).

3.1.2.4 The Rosenberg Self-Esteem Scale (RSES)

The ten-item Rosenberg Self-Esteem Scale (RSES) (1965) was used to assess participants' self-esteem. High self-esteem scores indicated that individual has self-respect and considers him or herself worthy. Low self-esteem score implied self-rejection and self-dissatisfaction. Five of the items are positively worded (e.g., ‘‘I feel I have a number of good qualities’’), and another five are negatively worded (e.g., ‘‘At times I think I am no good at all’’). Response format of the scale is 4-point scale with response alternatives are from 1(1 strongly disagree) and 4 (4 strongly agree). Negatively worded items are reverse scored (1; strongly agree, and 4; strongly disagree). The total score runs from 10 to 40. Higher scores imply higher self-esteem. Internal reliability coefficient of the scale was .71 (Tiggeman & Winefield, 1984).

Çuhadaroğlu (1986) translated the 10-item version of RSES into Turkish. Support for the validity and reliability of the scale was provided by Çuhadaroğlu (1986) and Tuğrul (1994). In her study Tuğrul (1994) reported that the Cronbach’s alpha of the scale was .76.

In the main study, the internal consistency reliability of RSES was found to be .83 and item total correlation of the scale ranged between .21 and .66. The participants’ levels of agreement with 10 items are averaged to produce an index of self-esteem (See Appendix G for RSES).

3.1.2.5 The Multidimensional Scale of Perceived Social Support (MSPSS)

The Multidimensional Scale of Perceived Social Support (MSPSS) scale was designed to evaluate perceived social support from three sources, namely, family, friends and significant others (Zimet, Dahlen, Zimet, & Forley, 1988). The scale consists of 12 items and three subscales, each containing 4 items and measure different sources of social support. Response alternatives are scored on a 7-point scale, ranging from agree very strongly (1) to disagree very strongly (7). Internal reliability coefficients of the scale were reported to be .79 and, test-retest correlations were found to range between .72 and .85 over two to three months period (Zimet, et al, 1988). Higher scores show higher levels of perceived social support.

The validity and the reliability study of the Turkish version of the MSPSS was conducted by Eker and Arkar (1995). Four groups of participants, students who applied to the university health center, psychiatric patients half of them hospitalized, renal disease patients and their relatives, each group with 50 subjects, consisted of the sample of the study. Cronbach's alphas of the subscales of the instruments were reported to be between .85 and .91. Moreover, negative correlations between the scores of MSPSS and State-Trait Anxiety Inventory and Beck Depression Inventory were reported as supporting the validity of the MSPSS.

In the main study, the internal consistency reliability of MSPSS was found to be .85 and item total correlation of the scale ranged between .27 and .66 which was quite similar Eker and Arkar's (1995) study of the MSPSS. For further analysis mean scores were obtained to reflex an index of the MSPSS (See Appendix H for MSPSS).

3.1.2.6 Short Form-36 Health Survey (SF-36)

Short Form-36 Health Survey (SF-36) was developed as a generic measure of subjective health status that could be applied widely to people with a various conditions (SF-36; Ware, Snow, Kosinski, & Gandek, 1993). It was designed to be used either as a self-administered test or as an assessment for use during a face –to-face interview with respondents. It was developed from a factor analysis of responses from over 22000 people to 149 items. Subsequently the total item number were reduced to 36. The scale assesses eight dimensions: physical functioning (PF;

10 items), social functioning (SF; 2 items), role limitations related to physical problems (RP; 4 items), role limitations related to emotional problems (RE; 3 items), mental health (MH; 5 items), energy-vitality (EV; 4 items), bodily-pain (BP; 2 items), and general health perceptions (GH; 5 items). The ninth category includes a single item, addressing the perceptions of health changes over the past year and is not used to score any of the eight multi-item scales. Separate versions allow assessment of health perceptions over the past 4 weeks and past week.

Response alternatives for the items are in various formats, including dichotomous format (yes or no), and 3, 5, and 6-category rating scales that indicate frequency of problems in different dimensions. The total score of the items are the product of summing item responses, then raw subscale scores are transformed algebraically into a 0 (poor health) to 100 (good health) continuum by computing where individual's score resides in the possible raw score continuum. Also, the 10-item physical function subscale can be summed separately or as part of a total score. Evidence for the reliability and validity is good across a variety of health conditions; the instrument seems sensitive to changes in health status over time (Jacoby, Baker, Steen, & Buck, 1999; Mant, Jenkinson, Murphy, Clipsham, Marshall, & Vessey, 1998; Shadbolt, McCallum, & Singh, 1997).

The validity and the reliability study of the Turkish version of the SF-36 were conducted by Koçyiğit, Aydemir, Fişek, Ölmez, and Memiş (1999). In their study 50 patients with osteoarthritis and 50 patients with chronic back pain were included. Cronbach's alphas of the subscales of the instruments were reported to range between .73 and .76. Item total correlation coefficients of each subscale were reported as follows: PF, between .47 and .74; SF, between .84 and .85; RP, between .69 and .90; RE, between .65 and .83; MH, between .69 and .78; EV, between .62 and .79; P, between .79 and .89; and GH, between .57 and .78. Correlations between subscales of SF-36 and subscales of Nothingham Health Profile (NHP) were reported as a validity of SF-36. They were -.59 for PF, -.44 for SF, -.57 for P, -.65 for MH, and -.57 for EV ($p < .001$). Lower scores of the NHP implied higher probability of quality of life that is why subscales of SF-36 and NHP are negatively correlated. As a result it was concluded that SF-36 is a valid and reliable instrument that can be used with romatoidal patients.

Cronbach's alphas and item total correlation coefficients of each subscale of the instrument for the current study will be provided in the result section of the study (See Appendix I for SF-36).

3.1.2.7 The Well-being Questionnaire-12 (WBQ-12)

Detailed information regarding the scale was given in the pilot study section. In the main study, the internal consistency reliability of The Well-being Questionnaire-12 was found to be .85 and item total correlation of the scale ranged between .45 and .66 (See Appendix C for WBQ-12).

3.1.3 Procedure

Approval from the hospital ethics committee and authorization from the hospital administration for the main study were received. Participants of the study were haemodialysis patients with renal failure being treated at the S.B. Etlik Ihtisas Hospital dialysis unit in Ankara. After providing information regarding the study to the participants, they were asked if they would volunteer to participate in the study.

Confidentiality was assured and they were informed that they could withdraw at any time, without any interference with their treatment or care. If they agreed to participate, the patients filled in the set of questionnaires developed for studying antecedent causal variables, mediational and outcome variables individually. The patient also completed, prior to this, a questionnaire concerning sociodemographic data. However, for the subjects who have difficulty with reading and/or writing, questions were read and responses were filled according to the subjects' responses by the researcher. Fourteen (10.6 %) of patients approached refused to participate in the study, seven patients (5.3 %) were not included to the study because of the auditory or visual problems, and five patients (3.8 %) could not participate due to restrictions imposed by their medical conditions. In order to control for the sequencing effect, counterbalancing was done for the order of the questionnaires of the main study. Diagnostic and medical information of the patient were obtained from the medical records.

3.1.4 Statistical Analysis

Data cleaning was done for the main study before the statistical analysis. Firstly data were tested for accuracy by using the frequencies to see the range of the data and missing data for each variable.

At the second step data were converted to a z-score and the cases with -3 and +3 scores were defined as univariate outliers. One outlier related to the number of children (number of children=8), three outliers related to years of kidney disease (years of kidney disease=33, 34 and 35 years) and two outliers related to duration of haemodialysis treatments (duration of haemodialysis treatments= 228 and 240 months) were found. However, because no criteria concerning patient characteristics for the inclusion of the study were imposed, these outliers were not deleted.

Third step consisted of running multiple regression analysis to find out multivariate outliers. In regression analysis, dependent variable was subject number and independent variables were the variables that were being looked for as multivariate variables. Regression created a new variable named Mahalanobis -1. Then data file were sorted by Mahalanobis variable. After taking the α= .01 and df=17, critical chi-square value was found from the chi-square table (critical chi-square value=33.41). Each score under Mahalanobis -1 variable were compared with critical chi-square value and there were no multivariate outliers. Thus, data of the main study was free from multivariate outliers.

Normality of the data was tested using kurtosis, skewness and histogram at the fourth step. Distribution of some of the variables related to sociodemographic and illness related variables (e.g. presence of caregiver, duration of the hospitalization etc) were found to be non-normal. However it was thought that the reason for this non-normality was the nature of the sample, which consisted of chronically ill patients.

Linearity was tested with the scatter plot at fifth step and finally, multicollinearity and singularity was tested using correlation matrix by computing Pearson correlation coefficient between all variables. None of the correlations between any two variables was equal or above .90.

After data cleaning, descriptive statistics for sociodemographic and illness related variables of the study were calculated. Then, factor analysis, reliability and validity for the Symptom Distress Scale, Coping Self Efficacy Scale and Perceived Expressed Emotion Scale, and Correlational matrix among the variables of the study were conducted.

Prior to the series of regression analysis, five composite scores (coping self efficacy score; general knowledge about illness; physical health component of quality of life, PHC; mental health component of quality of life, MHC; overall quality of life scale, SF36) were calculated. Details of these computations are presented in regression analysis section.

Regression analyses were as follows: predictors of the well-being, predictors of the PHC, predictors of the MHC and predictors of the SF36.

At last, mediation was tested for the well-being and SF36 variables, using a multistage regression approach outlined by Baron and Kenny (1986). The main objective was to test a full mediation model as illustrated in Figure 1, as presented in introduction section; the possibility of a partially mediated model was also explored. According to Baron and Kenny (1986), a model is fully mediated if the relationship between the antecedent variables and the outcome variable changes from significant to non-significant when the mediator is entered into the equation. A model is partially mediated when the significant relationship between the antecedent variables and outcome variable is reduced after the mediator is entered into the equation. In a partially mediated model antecedents could have direct as well as indirect effects on the outcomes.

CHAPTER IV

RESULTS

4.1 The Symptom Distress Scale (SDS)

In order to examine the factor structure of the Symptom Distress Scale (SDS), principal components factor analysis was conducted. Initial analysis resulted in ten factors, explaining 65.15% of variance with the criteria of eigenvalues greater than 1.00. Although, the scree plot indicated that the scale had 10 factors, two criteria were used to determine the number of factors to rotate: a priori hypothesis, and the interpretability of the factor solution. Because, there were not hypothesis related to effects of different kinds of distress on well-being and quality of life, unlike the pilot study, consequently a single factor was thought to reflect distress. The obtained solution, as shown in Table 7, explained 20.98 % of the total variance. This general factor was labeled as, “Symptom distress” of dialysis patients, same title as used for the scale. 29 items were included under the factor and factor loadings ranged between .30 -.71. Items that had loadings less than .30 were excluded from further analysis (Items about dependence to the haemodialysis machine, drinking too much water and fear of injection pain were excluded for this reason). Thus Symptom Distress Scale included 29 items.

Table 7. *Factor Structure of Symptom Distress Scale (SDS)*

	Factor1 (symptom distress) Alpha = .86 % variance = 20.98
Change in the responsibility with the family roles	**.71**
Uncertainty regarding the future	**.69**
Impaired mobility	**.63**
Fear of death	**.58**
Difficulty with a movement	**.57**
Difficulty to control family relations	**.57**
Fatigue	**.56**
Incapability to do house works	**.53**
Long duration of the haemodialysis	**.53**
Nausea	**.52**
Vomiting	**.51**
Muscle cramps	**.50**
Inability to take care of family needs	**.49**
Insomnia	**.48**
Inability to work long hours	**.47**
Inability to maintain relations with friends and relatives	**.47**
Feeling oneself unattractive	**.44**
Inability to travel and being house bound	**.43**
Financial problems	**.43**
Pain	**.43**
Attention problems	**.43**
Lack of appetite	**.39**
Memory problems	**.35**
Drowsiness	**.35**
Itching	**.35**
Being dependent on family members	**.31**
Noncompliance with dieting	**.31**
Being dependent on haemodialysis care personnel	**.30**
Noncompliance with medication	**.30**
Excluded items:	
Dependence to the haemodialysis machine	.11
Fear of injection pain	.10
Drinking too much water	.04

The overall alpha reliability of the scale was found to be .86. Item-total correlations of the SDS varied from .20 to .64.

Guttman split-half reliability was also computed for the scale. It was .92 and alpha coefficients were .76 for both of the two parts of the symptom distress factor.

Subsequently, mean distress scores were calculated by summing up the scores of the 29 items and dividing it by the number of the items. Means, standard deviation, and the ranges of the SDS presented at the Table 13.

Consistent with the expectations, as presented in Table 8, symptom distress scores correlated with other measures of the study in the expected directions, providing support for the concurrent validity of the symptom distress scale. Specifically SDS scores correlated positively with age, and criticism-hostility factors of expressed emotion, and negatively correlated with the education, well-being, optimism, self esteem, social support, coping self efficacy, and all of the subscales and component scores of quality of life measures (namely, Physical functioning; Role limitations related to physical problems; Bodily pain; General health perceptions; Energy-vitality; Social functioning; Role limitations related to emotional problems; Mental health; Physical Health Component; Mental Health Component; and the Short Form-36 Health Survey mean score).

Table 8. *Correlations of the Symptom Distress Scale (SDS) with Variables Used in the Main Study*

Variables	SDS
Age	.194*
Education	-.224*
Income	-.343**
Duration of kidney disease	-.124
Duration of haemodialysis treatment	.059
Hospitalization	.023
Additional diagnosis	.276**
Knowledge about illness	-.313**
WBQ-12	-.640**
LOT	-.334**
RSES	-.447**
MSPSS	-.297**
CSES	-.644**
Subscales of PEES	
C/H	.463**
EOI	-.130
Subscales of SF-36	
PF	-.544**
RP	-.403**
BP	-.532**
GH	-.525**
EV	-.555**
SF	-.573**
RE	-.461**
MH	-.568**
Composite scores of SF-36	
PHC	-.621**
MHC	-.633**
SF36	-.664**

Note. WBQ-12 = Well Being Questionnaire-12; LOT = The Life Orientation Test; RSES= Rosenberg Self-Esteem Scale; MSPSS = Multidimensional Scale of Perceived Social Support; CSES= Coping Self-efficacy Scale; PEES= Perceived Expressed Emotion Scale; C/H = Criticism/Hostility; EOI= Emotional over involvement; SF-36 = Short Form-36 Health Survey; PF=Physical functioning; RP=Role limitations related to physical problems; BP= Bodily pain; GH=General health perceptions; EV=Energy-vitality; SF=Social functioning; RE=Role limitations related to emotional problems; MH=Mental health; PHC=Physical Health Component; MHC=Mental Health Component; SF36=Short Form-36 Health Survey mean score.

* Significant correlations at the .05 alpha level (2-tailed).

** Significant correlations at the .01 alpha level (2-tailed).

4.2 The Coping Self-Efficacy Scale (CSES)

The degree of coping self-efficacy of subjects was evaluated with the items of Symptom Distress Scale (SDS). For each item, the degree of perceived coping self-efficacy with that situation was obtained. Subjects estimated their coping self-efficacy, belief about dealing effectively with potential stressors (Bandura, 1997a), on a 1-3-point scale (1: not at all; 3: very much).

The single factor structure of SDS was used to obtain the internal consistency estimates of reliability for the same factor of Coping Self Efficacy Scale (CSES). Alpha for the CSES was found to be .88. Item-total correlations varied from .24 and .59 for the CSES.

Guttman split-half reliability was also computed for the scale. It was .87 for the CSES and alpha coefficients were .77 and .82 for two parts of scale.

Consistent with the expectations, as presented in Table 9, factor of coping self-efficacy correlated with other measures of the study in the expected directions, provided support for the concurrent validity of the coping self-efficacy scale. Specifically CSES scores correlated negatively with age, symptom distress and criticism-hostility factors of expressed emotion, and positively correlated with the education, well-being, optimism, self esteem, social support, and all of the subscales and component scores of quality of life measures (namely, Physical functioning; Role limitations related to physical problems; Bodily pain; General health perceptions; Energy-vitality; Social functioning; Role limitations related to emotional problems; Mental health; Physical Health Component; Mental Health Component; and the Short Form-36 Health Survey mean score).

Subsequently, the mean scores of coping self-efficacy were calculated by summing up the scores of items and dividing them by the number of items. Means, standard deviation, and the ranges of the CSES presented at the Table 13.

Table 9. *Correlations of the Coping Self-Efficacy with Variables Used in the Main Study*

Variables	CSES
Age	-.282**
Education	.207*
Income	.327**
Duration of kidney disease	.031
Duration of haemodialysis treatment	-.098
Hospitalization	-.004
Additional diagnosis	-.181
Knowledge about illness	.172
WBQ-12	.515**
LOT	.321**
RSES	.442**
MSPSS	.276**
SDS	-.644**
Subscales of PEES	
C/H	-.356**
EOI	.065
Subscales of SF-36	
PF	.476**
RP	.357**
BP	.484**
GH	.517**
EV	.546**
SF	.454**
RE	.337**
MH	.401**
Composite scores of SF-36	
PHC	.565**
MHC	.502**
SF36	.563**

Note. WBQ-12 = Well Being Questionnaire-12; LOT = The Life Orientation Test; RSES= Rosenberg Self-Esteem Scale; MSPSS = Multidimensional Scale of Perceived Social Support; CSES= Coping Self-efficacy Scale ; PEES= Perceived Expressed Emotion Scale; C/H = Criticism/Hostility; EOI= Emotional over involvement; SF-36 = Short Form-36 Health Survey; PF=Physical functioning; RP=Role limitations related to physical problems; BP= Bodily pain; GH=General health perceptions; EV=Energy-vitality; SF=Social functioning; RE=Role limitations related to emotional problems; MH=Mental health; PHC=Physical Health Component; MHC=Mental Health Component; SF36=Short Form-36 Health Survey mean score

* Significant correlations at the .05 alpha level (2-tailed).

** Significant correlations at the .01 alpha level (2-tailed).

4.3 The Perceived Expressed Emotion Scale (PEES)

The psychometric properties of the Perceived Expressed Emotion Scale (PEES) in a haemodialysis patient sample were also examined in the main study. The scale was subjected to principal components factor analysis. First analysis resulted in 13 factors with the criteria of eigenvalues greater than 1.00, explaining 68.62% of variance. Based on the priori hypothesis that the measure consists of two constructs, and the interpretability of the factor solution, two factors were rotated using a Varimax rotation procedure. The emerging factors were labeled as "Emotional Over Involvement (EOI)" and "Criticism/Hostility(C/H)". The first factor includes 19 items and explained 12.53% of the variance and factor loadings ranged between .34 -.65. Due to the having loadings less than .30, items 23, 2 and 36 were excluded (loadings were .28, .22 and .05 respectively) and were not used in further analysis. Thus, the factor of EOI includes 17 items and the factor loadings ranged between .34 -.65. The second factor had 21 items and explained 15.28% of variance and factor loadings ranged between .31-.67. Cronbach alpha coefficients of EOI and C/H factors were .82 and .85 respectively. Item-total correlations varied from .20 and .61 for the EOI and .28 and .58 for the C/H factors.

Guttman split-half reliability was also computed for each factor. It was .84 for the EOI and alpha coefficients were .67 and .70 for two parts of the EOI. Guttman split-half reliability was .89 for the C/H factor and alpha coefficients were same for two parts of the C/H and it was .73.

Table 10 presents rotated solution with the yielded two interpretable factors. Coefficient alpha was computed to obtain internal consistency estimates of reliability for the total PEES, which was .73. These results indicate that the PEES, retained acceptable reliability with the item modifications described earlier.

Table 10. *Factor Structure of Perceived Espressed Emotion Scale (PEES)*

	Factor1 (Emotional Over Involvement) Alpha = .82 % variance=12.53	Factor2 (Criticism/Hostility) Alpha = .85 % variance = 15.28
4. For him /her, my wishes are more important than the rest of the families'	**.65**	-.04
15. He/she cherishes me	**.65**	-.30
37. It gives him/her pleasure to attend to everything about me	**.62**	.02
31.His/her mind is always full of me, he/she can not think of anything else	**.59**	.11
22. He/she worries even for a slightest thing that may happen to me	**.59**	-.17
39. He/she tries to talk with me when I am uneasy and unhappy	**.55**	-.22
37. It gives him/her pleasure to attend to everything about me	**.53**	-.24
5. He/she tries to learn everything, even private matters about me	**.52**	-.04
3. He/she enjoys talking with me	**.50**	-.44
28. He/she thinks that we are alike	**.49**	.04
14. He/she listens to all my ideas	**.46**	-.36
9. He/she frequently gives me advice	**.39**	.37
38.When I get angry he/she tries to soothe me, he/she doesn't stay away from me	**.39**	-.16
27. My hospitalization makes him/her desperate and he/she cannot bear being apart from me	**.37**	.22
12. He/she is the only one in our family who takes care of everything about me	**.36**	-.10
41.Usually he/she gives me emotional support when I feel down	**.36**	-.28
8. He/she likes and admires some aspects of me	**.34**	-.11
32. He/she frequently criticizes me so that I correct myself	.16	**.67**
34. He/she thinks that I give a lot of trouble to him/her	-.19	**.65**

Table 10. *(continued)*

	Factor1 (Emotional Over Involvement) Alpha = .82 % variance=12.53	Factor2 (Criticism/Hostility) Alpha = .85 % variance = 15.28
10. We can not get along with him/her	-.31	**.59**
21. He/she wants me to behave in ways he/she expects me to behave	-.02	**.58**
17. He/she thinks that I interfere with his/her life	-.21	**.58**
19. He/she doesn't like anything I do	-.12	**.56**
7. He/she keeps on thinking about what he/she did wrong	.26	**.53**
13. He/she hurts and offends me	-.19	**.48**
1. He/she thinks that I do certain things on purpose and this makes him/her angry	-.16	**.48**
33. He/she wants to keep away from me	-.29	**.48**
29. He/she wants me to correct my mistakes	.07	**.47**
26. He/she often warns me to do what I do in an orderly and systematic manner	.14	**.46**
20. He/she doesn't like the way I dress up and he/she tells this to me	-.01	**.45**
18. Due to my illness he/she feels that the whole world collapsed on him/her	.14	**.45**
30.We get on well	.39	**-.44**
6. My existence makes him/her crazy	-.19	**.43**
35. He/she thinks that without me, everything would be fine	-.17	**.43**
11. He/she no longer cares for me and leaves me alone	-.19	**.40**
25. He/she keeps away from me when I am uneasy and unhappy	-.11	**.38**
40. He/she thinks that I exaggerate my illness	.00	**.31**
Items excluded		
23. He/she attends everything about me	.28	.06
2. He/she doesn't believe that I am ill	-.22	.17
36. When he/she faces with a difficulty he/she can cope with it	.02	.05

Consistent with the expectations, as presented in Table 11, for the main study, C/H was negatively correlated with income, well being, optimism, self esteem, social support, and coping self efficacy, most of the subscales and component scores of quality of life measure (namely, Physical functioning; Bodily pain; General health perceptions; Energy-vitality; Social functioning; Mental health; Physical Health Component; Mental Health Component; and the Short Form-36 Health Survey mean score) and positively correlated with having child, number of family members and symptom distress. Moreover, EOI had positive correlations with self esteem and energy-vitality and negatively correlated with C/H. Thus correlations of C/H and EOI in an expected way provided support for the concurrent validity of the C/H and EOI constructs.

Subsequently, item 30 that had negative factor loading was recoded. Then, mean factor scores of C/H and EOI were calculated by summing up the scores of items and dividing the number by number of the items belonging to each factor so that higher scores show higher perceptions of C/H and EOI. Means, standard deviations, and the ranges of the C/H and EOI presented at the Table 13.

Table 11. *Correlations of the Factors of PEES, Criticism/Hostility and Emotional Over Involvement with other variables used in the study*

Variables	C/H	EOI
Age	.138	.063
Education	-.088	-.145
Having child	.259**	-.003
Number of family members	.278**	.028
Income	-.194*	-.001
Duration of kidney disease	-.157	-.028
Duration of haemodialysis treatment	-.095	-.088
Hospitalization	-.037	.107
Additional diagnosis	.184	.002
Knowledge about illness	-.137	-.110
WBQ-12	-.487**	.172
LOT	-.240**	.078
RSES	-.449**	.221*
MSPSS	-.271**	.182
SDS	.463**	-.130
CSES	-.356**	.065
Subscales of PEES		
C/H		-.293**
Subscales of SF-36		
PF	-.277**	-.105
RP	-.155	-.036
BP	-.343**	-.032
GH	-.321**	.122
EV	-.461**	.204*
SF	-.376**	.033
RE	-.189	-.154
MH	-.455**	.102
Composite scores of SF-36		
PHC	-.327**	-.023
MHC	-.406**	.012
SF36	-.390**	-.005

Note. PEES= Perceived Expressed Emotion Scale; WBQ-12= Well Being Questionnaire-12; LOT = The Life Orientation Test; RSES= Rosenberg Self-Esteem Scale; MSPSS = Multidimensional Scale of Perceived Social Support; CSES= Coping Self-efficacy Scale ; PEES= Perceived Expressed Emotion Scale; C/H = Criticism/Hostility; EOI= Emotional over involvement; SF-36 = Short Form-36 Health Survey; PF=Physical functioning; RP=Role limitations related to physical problems; BP= Bodily pain; GH=General health perceptions; EV=Energy-vitality; SF=Social functioning; RE=Role limitations related to emotional problems; MH=Mental health; PHC=Physical Health Component; MHC=Mental Health Component; SF36=Short Form-36 Health Survey mean score

* Significant correlations at the .05 alpha level (2-tailed).

** Significant correlations at the .01 alpha level (2-tailed).

4.4 Short Form-36 Health Survey (SF-36)

Table 12 presents item number, Cronbach’s alphas and item total correlation coefficients of each subscale of the Short Form-36 Health Survey (SF-36). Moreover, in addition to eight subscales providing the health profile of the individual, three summary measures were calculated: a physical health component of quality of life, PHC; a mental health component of quality of life, MHC; and an overall quality of life scale, SF36. Details of the calculation were presented in regression analyses section (Ware, Kosinski, & Keller, 1994).

Table 12. *Cronbach’s Alphas and Item-total Correlation Coefficients of Each Subscale of the Short Form-36 Health Survey*

Subscales of SF-36	Item number	Cronbach’s alphas	Item total correlation coefficients
Physical functioning (PF)	10	.88	.34-.75
Role limitations related to physical problems (RP)	4	.84	.65-.71
Bodily pain (BP)	2	.74	.60-.60
General health perceptions (GH)	5	.80	.49-.72
Energy-vitality (EV)	4	.74	.44-.64
Social functioning (SF)	2	.71	.56-.56
Role limitations related to emotional problems(RE)	3	.84	.63-.74
Mental health (MH)	5	.84	.57-.70
Composite scores of Short Form-36 Health Survey			
Physical Health Component (PHC)	21	.90	.33-.65
Mental Health Component (MHQ)	14	.90	.51-.78
Short Form-36 Health Survey mean score (SF36)	35	.94	.31-.73

4.5 Means, Standard Deviations, and Ranges of the Variables Used in the Study

Central tendency and dispersion scores of the variables of the study were computed in order to present general information about the measures of the study. Table 13 presents means, standard deviations, and the ranges of the variables used in the study.

Table 13. *Means, Standard Deviations, and the Ranges of the Measures*

Variables	Mean	SD	Range
WBQ-12	1.66	.68	0-3.00
LOT	2.20	.55	.88-3.63
RSES	2.79	.53	1.30-4.00
MSPSS	4.37	1.18	1.50-6.75
SDS	1.97	.34	1.14-2.86
CSES	2.08	.33	1.17-2.93
Subscales of PEES			
C/H	.30	.21	.00-1.00
EOI	.75	.21	.18-1.00
Subscales of SF-36			
PF	49.62	25.53	0-95
RP	36.32	39.51	0-100
BP	59.85	23.60	10-100
GH	38.06	23.29	0-97
EV	43.07	22.16	0-85
SF	50.12	29.96	0-100
RE	42.77	43.10	0-100
MH	51.51	22.68	0-96
Composite scores of SF-36			
PHC	45.96	21.10	2.50-96.75
MHC	46.87	24.58	00- 93.00
SF36	46.41	21.10	1.25-90.38

Note. WBQ-12 = Well Being Questionnaire-12; LOT = The Life Orientation Test; RSES= Rosenberg Self-Esteem Scale; MSPSS = Multidimensional Scale of Perceived Social Support; CSES= Coping Self-efficacy Scale; PEES= Perceived Expressed Emotion Scale; C/H = Criticism/Hostility; EOI= Emotional over involvement; SF-36 = Short Form-36 Health Survey; PF=Physical functioning; RP=Role limitations related to physical problems; BP= Bodily pain; GH=General health perceptions; EV=Energy-vitality; SF=Social functioning; RE=Role limitations related to emotional problems; MH=Mental health; PHC=Physical Health Component; MHC=Mental Health Component; SF36=Short Form-36 Health Survey mean score.

4.6 Correlations Among the Variables in the study

Table 14. *Correlation Matrix of the Variables Used in the Study*

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1 Age	-.213*	.153	.020	.033	.308**	-.178	-.287*	-.163	-.102	-.070	-.389**	-.428**	-.326**	-.308**	-.323**	-.401**	-.240*	-.170	-.474**	-.339**	-.427**
2 Education		.214*	.056	.095	-.013	.377**	.147	-.012	.151	-.001	.226*	-.038	.157	.012	.053	.187	.142	.021	.094	.136	.123
3 Income			-.186	-.094	.180	.145	.203*	.084	.290**	.206*	.204*	.169	.171	.158	.194*	.115	.241*	.161	.223*	.222*	.235*
4 Haemodialysis duration				.536**	-.218*	.211*	-.083	.025	-.059	.016	-.073	.011	-.041	-.157	-.053	.047	.089	-.059	-.069	.028	.000
5 Renal disease duration					-.030	.144	.103	-.002	.006	-.028	-.068	-.079	-.043	-.082	-.077	-.012	-.020	.027	-.088	-.023	-.045
6 Additional illness						-.178	-.291**	-.237*	-.128	-.04	-.314**	-.311**	-.275**	-.330**	-.391**	-.362**	-.307**	-.262**	-.392**	-.394**	-.416**
7 Knowledge							.203*	.167	.283**	.225*	.272**	.189	.204*	.105	.143	.160	.241*	-.066	.246*	.202*	.236 *
8 WBQ-12								.520**	.630**	.261**	.479**	.348**	.556**	.560**	.702**	.517**	.369**	.698**	.593**	.638**	.653**
9 Optimism									.579**	.168	.289**	.203*	.333**	.397**	.442**	.253**	.277**	.465**	.369**	.405**	.411**
10 Self-esteem										.445**	.405**	.235*	.324**	.515**	.530**	.359**	.302**	.589**	.446**	.497**	.501**
11 Social support											.096	.164	.153	.311**	.251**	.272**	.220*	.277**	.225*	.300**	.280**
12 PF												.504**	.470**	.515**	.565**	.576**	.427**	.504**	.779 **	.606**	.728**
13 RP													.414**	.477**	.474**	.527**	.608**	.406**	.832**	.628**	.767**
14 BP														.534**	.579**	.545**	.346**	.475**	.732**	.558**	.677**
15 GH															.696**	.587**	.432**	.619**	.772**	.668**	.759**
16 EV																.598**	.498**	.761**	.716**	.802**	.806**
17 SF																	.632**	.633**	.705**	.863**	.835**
18 RE																		.461**	.604**	.850**	.777**
19 MH																			.622**	.797**	.755**
20 PHC																				.784**	.938**
21 MHC																					.951**
22 SF36																					

Note. * Significant correlations at the .05 alpha level (2-tailed). ** Significant correlations at the .01 alpha level (2-tailed).

Table 14. *(continued)*

1) Age,
2) Education,
3) Monthly income,
4) Duration of haemodialysis treatment (months)
5) Hospitalization during the last year,
6) Presence of additional diagnoses,
7) Knowledge about illness,
8) Well Being Questionnaire-12 (WBQ-12),
9) Life Orientation Test (Optimism, LOT),
10) Rosenberg Self Esteem Scale (RSES),
11) Multidimensional Scale of Perceived Social Support (MSPSS),
12) Physical Functioning,
13) Role Limitations Related to Physical Problems,
14) Bodily-Pain,
15) General Health Perceptions,
16) Energy-Vitality,
17) Social Functioning,
18) Role Limitations Related to Emotional Problems,
19) Mental Health,
20) Physical Health Component,
21) Mental Health Component,
22) Short Form-36 Health Survey mean score

4.7 Regression Analyses: Predictors of Well Being, Physical Health Component of Quality of Life (PHC), Mental Health Component of Quality of Life (MHC), and Overall Quality of Life (SF36)

Four hierarchical regression analyses were performed to identify the predictors of the criterion variables, which were well-being (WBQ-12), physical health component of quality of life (PHC), mental health component of quality of life (MHC), and overall quality of life (SF36). Results of the correlational analysis and the priori hypothesis were considered in order to identify the variables that were entered into the regression analysis. Same sets of variables were used for each regression analysis with the same order.

For each regression analysis, sociodemographic characteristics of the sample (age, education, having children, income level of the family, house and car ownership status) were entered in the first step with the enter procedure, followed by illness-related characteristics of the sample (duration of kidney disease, haemodialysis treatment and hospitalizations in the previous year, presence of additional diagnoses, and knowledge about illness) with the enter procedure. Optimism, self-esteem, perceived social support, perceived emotional overinvolvement (EOI) and criticism-hostility (C/H) were entered into the regression analyses in the third step with the enter procedure. Finally, coping self-efficacy with problems of illness was entered into the regression analysis as a predictor variable again with the enter procedure.

Prior to the regression analysis the following composite scores were computed:

1.Coping self-efficacy scores used for the regression analysis were calculated by the multiplication of Symptom Distress Scale's (SDS) scores and Coping Self Efficacy Scale's (CSES) scores of haemodialysis patients.

2. Item of general knowledge about illness was calculated by the mean score of three items (knowledge about etiology, treatment and prognosis of illness) in order to obtain a total score for the general knowledge about illness. Cronbach alpha coefficients of general knowledge scores were .84.

3. A physical health component score of quality of life (PHC), being the mean of the four main scales, which compose the SF-36 physical component score (physical functioning, PF; role limitations related to physical problems, RP; bodily-pain, BP; and general health perceptions, GH) (Ware et al., 1994).

4. A mental health component score of quality of life (MHC), being the mean of the four main scales, which compose the SF-36 mental component score (energy-vitality, EV; social functioning, SF; role limitations related to emotional problems, RE; and mental health, MH) (Ware et al., 1994).

5. An overall quality of life score (SF36), being the mean of the eight subscales (physical functioning, PF; role limitations related to physical problems, RP; bodily-pain, BP; general health perceptions, GH; energy-vitality, EV; social functioning, SF; role limitations related to emotional problems, RE; and mental health, MH) (Ware et al., 1994).

4.7.1 The Predictors of Well-Being

Table 15 presents the significant variables for each step of regression analysis for the well-being.

Table 15. *Predictors of the Well-Being*

Order of Entry of set	Predictors in set	F for set	df	B	t for with-in set predictors	Partial correlation (pr)	Model R²
1.	Sociodemog.	3.63**	6, 99				.18
	Age			-0.02	-3.62***	-.34	
	Family income			0.21	2.56*	.25	
2.	Illness charact.	2.82*	5, 94				.29
	Age			-0.02	-2.75**	-.27	
	Family income			0.23	2.84**	.28	
	Duration of kidney disease			0.02	2.30*	.23	
	Duration of dialysis treatment			-0.00	-2.20*	-.22	
	Presence of additional diagnoses			-0.40	-2.90**	-.29	
3.	Personal characteristics	12.64***	5, 89				.58
	Age			-0.01	-2.52*	-.26	
	Duration of kidney disease			0.02	2.19*	.23	
	Duration of dialysis treatment			-0.00	-2.33*	-.24	
	Presence of additional diagnoses			-0.22	-2.01*	-.21	
	Optimism			0.24	2.13*	.22	
	Self-esteem			0.44	3.23**	.32	
	Perceived C/H			-0.74	-2.70**	-.28	
4.	Personal characteristic	9.61**	1, 88				.62
	Age			-0.01	-2.16*	-.22	
	Self-esteem			0.40	3.03**	.31	
	Perceived C/H			-0.55	-2.07*	-.22	
	Coping Self-efficacy			0.16	3.10**	.31	

Note. *$p < .05$, **$p < .01$, ***$p < .001$.

The results of the regression analysis revealed that the variables entered in the first step accounted for 18 % of the variance in well-being, which was significant (*F* (6,99) = 3.63, *p*< .01). The variables in the second step, explained 10.7 % of the variance (*F* (5,94) = 2.82, *p* < .05). Variables in third step accounted for 29.6 % of the variance (*F (*5,89) = 12.64, *p* < .001). Coping self-efficacy, in the final step variable explained 4.1 % of the variance (*F* (1,88) = 9.61, *p* < .01).

As can be seen from table 10, after controlling for the variance accounted for by sociodemographic and dialysis-related characteristics of the sample, self-esteem (*F* change [5, 89] = 12.64, *p* <. 001 ; *pr* =.31, *t* [89] = 3.03, *p* <. 01), perceived criticism-hostility (C/H) (*F* change [5, 89] = 12.64, *p* <. 001 ; *pr* = -. 22, *t* [89] = -2.07, *p* <. 05) and coping self-efficacy (*F* change [1, 88] = 9.61, *p* <. 01 ; *pr* = .31, t [88] =3.10, *p* <. 01) measures associated significantly with well-being. The results showed that increase in age and perceived C/H related to lower well-being, whereas higher self-esteem and coping self-efficacy related to higher well-being.

4.7.2 The Mediated Regression Analyses

A series of hierarchical regression analyses were conducted to test for direct and indirect effects of predictors on outcome variable, which was psychological well-being. Whether the relations between predictors and criterion (psychological well-being) were mediated by the mediator variable (coping self-efficacy) was also tested.

For the regression analysis of each outcome variable (well being) sociodemographic characteristics of the sample (i.e., age, education, having children, income level of the family, house and car ownership status) were entered in the first step, followed by illness-related characteristics of the sample (duration of kidney disease, haemodialysis treatment, and hospitalizations in the previous year, presence of additional diagnoses, and knowledge about illness). Optimism, self-esteem, perceived social support, perceived emotional overinvolvement (EOI) and perceived criticism-hostility (C/H) were entered into the regression analyses in the third step. Finally in step 4, the mediator variable (coping self-efficacy) was entered into the regression equation. Coping self-efficacy score used for the mediational analysis is a composite score and was obtained by the multiplication of Symptom Distress Scale and Coping Self Efficacy Scores of haemodialysis patients. Enter procedure were used for the all steps of the regression analysis.

In order to find out regression coefficients between the mediator variable (coping self efficacy) and predictors another regression analysis was performed. All the predictors described above were entered at a single step and dependent variable was the coping self-efficacy.

Baron and Kenny (1986) suggested that evidence for mediation requires three patterns of relationships: (a) the predictor (described above) should be correlated with the criterion (psychological well-being and QOL measures), (b) the predictor should be correlated with the mediator (coping self efficacy), and (c) the mediator should affect the criterion, after controlling for the effect of the predictor. To establish mediation, the effects of the predictor on the criterion should become non-significant (full mediation) or be sufficiently reduced in significance (partial mediation) when the effects of the mediator are controlled. Following Baron and

Kenny's (1986) suggestions, the results of the mediational regression analysis are presented in the following section.

4.7.3 Results of the Mediated Regression Analyses of Well-Being

Results of the mediational analysis showed that age, years of kidney disease, duration of haemodialsysis, additional diagnosis, optimism, self esteem, and criticism-hostility (C/H) as predictors and coping self efficacy as a mediator fulfilled the requirements of three patterns of relationships for the mediation. Sobel test was conducted for each variable to identify either full mediation or partial mediation.
Figure 2 presents the results of the mediational analysis.

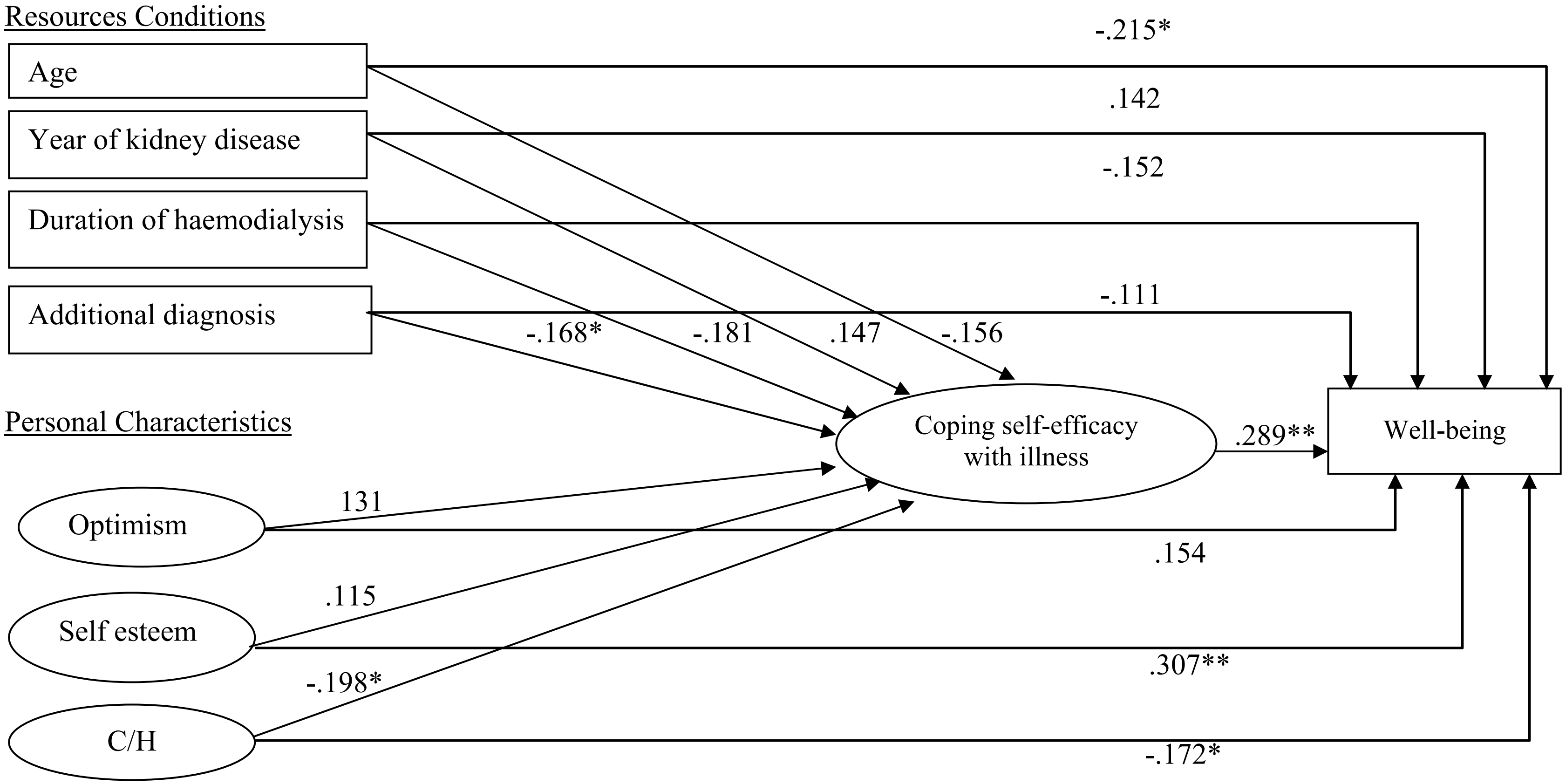

Figure 2. *Mediational Analyses of Resources, Mediator and Well-Being (Adapted from Hobfoll's Theory of Conservation of Resources, 1989)** $p < .05$, ** $p < .01$.

The results of the regression analysis revealed that although the standardized coefficients of the age entered in the third step was significant (Beta = -.260, $p < .05$), at the fourth step the effect of age on psychological well being was reduced upon the addition of the coping self-efficacy to the regression (Beta = .289). To test whether a mediator carries the influence of age to psychological well-being, Sobel test was conducted. The result of the Sobel test was not significant ($z = -1.31$, $p > .05$) and showed that there is no mediation effect and reduction in the main effect (Beta = -.260, $p < .05$) by mediated effect (Indirect effect = -.045, Direct Effect = -.215).

The results of the regression analysis revealed that although the standardized coefficients of the year of kidney disease entered in the third step was significant (Beta = .185, $p < .05$), at the fourth step the effect of the year of kidney disease on the psychological well being minimized upon the addition of the coping self-efficacy to the regression (Beta = .289). To test whether a mediator carries the influence of the year of kidney disease to psychological well-being Sobel test was conducted. The result of the Sobel test was not significant ($z = 1.41$, $p > .05$) and showed that there is no mediation effect and reduction in the main effect (Beta = .185, $p < .05$) by mediated effect (Indirect effect = .042, Direct Effect = .142).

The results of the regression analysis revealed that although the standardized coefficients of the duration of haemodialysis treatment entered in the third step was significant (Beta = -.205, $\underline{p} < .05$), at the fourth step the effect of the duration of haemodialysis treatment on the psychological well being minimized upon the addition of the coping self-efficacy to the regression (Beta = .289). To test whether a mediator carries the influence of the duration of haemodialysis treatment to psychological well-being, Sobel test was conducted. The result of the Sobel test was significant ($z = -2.63$, $p < .01$) and showed that there is mediation effect and reduction in the main effect significant (Beta = -.205, $p < .05$), by mediated effect (Indirect effect = -.052, Direct Effect = -.152).

The results of the regression analysis revealed that although the standardized coefficients of the presence of additional diagnoses entered in the third step was significant (Beta = -.159, $p < .05$), at the fourth step the effect of the presence of additional diagnoses on the psychological well being minimized upon the addition of the coping self-efficacy to the regression (Beta = .289). To test whether a mediator carries the influence of presence of additional diagnoses to psychological well-being, Sobel test was conducted. The result of the Sobel test was not significant ($z = -1.66$, $p >.05$) and showed that there is no mediation effect and reduction in the main effect (Beta = -.159, $p < .05$), by mediated effect (Indirect effect = -.049, Direct Effect = -.111).

The results of the regression analysis revealed that although the standardized coefficients of the optimism entered in the third step was significant (Beta = .191, $p < .05$), at the fourth step the effect of the optimism on the psychological well being minimized upon the addition of the coping self-efficacy to the regression (Beta = .289). To test whether a mediator carries the influence of optimism to psychological well-being, Sobel test was conducted. The result of the Sobel test was not significant ($z = 1.24$,_$p >.05$) and showed that there is no mediation effect and reduction in the main effect (Beta = .191, $p < .05$), by mediated effect (Indirect effect = .037, Direct Effect = .154).

The results of the regression analysis revealed that although the standardized coefficients of the self esteem entered in the third step was significant (Beta = .341, *p* < .01), at the fourth step the effect of the self esteem on the psychological well being minimized upon the addition of the coping self-efficacy to the regression (Beta = .289). To test whether a mediator carries the influence of self esteem to psychological well-being, Sobel test was conducted. The result of the Sobel test was not significant (z = 0.95*, p* >.05) and showed that there is no mediation effect and reduction in the main effect (Beta = .341, *p* < .01), by mediated effect (Indirect effect = .033, Direct Effect = .307).

The results of the regression analysis revealed that although the standardized coefficients of the criticism-hostility(C/H) entered in the third step was significant (Beta = -.229*, p* < .01) at the fourth step the effect of the C/H on the psychological well being minimized upon the addition of the coping self-efficacy to the regression (Beta = .289). To test whether a mediator carries the influence of C/H to psychological well-being, Sobel test was conducted. The result of the Sobel test was not significant (*z* = -0.29*, p* >.05) and showed that there is no mediation effect and reduction in the main effect (Beta = -.229, *p* < .01) by mediated effect (Indirect effect = -.057, Direct Effect = -.172).

As a summary, results of the mediation analysis showed that although the relations between predictors (age, duration of kidney disease, and haemodialysis, additional diagnosis, optimism, self esteem, and criticism-hostility) and criterion (psychological well-being) were mediated by the mediator variable (coping self-efficacy), Sobel test revealed that the only relationship between duration of haemodialysis treatment and well-being fully mediated by the coping self efficacy.

4.7.4 The Predictors of Physical Health Component Score of Quality of Life (PHC)

Table 16 presents the significant variables for each step of regression regression analysis for the PHC.

Table 16. *Predictors of the PHC*

Order of Entry of set	Predictors in set	F for set	df	B	t for with-in set predictors	Partial correlation (pr)	Model R^2
1.	Sociodemog.	8.92***	6, 99				.35
	Age			-0.89	-5.39***	-.48	
	Family income			7.46	3.21**	.31	
2.	Illness charact.	3.52**	5, 94				.45
	Age			-0.69	-4.19***	-.40	
	Family income			7.98	3.52***	.34	
	Presence of additional diagnoses			-13.58	-3.50***	-.34	
3.	Personal characteristics	3.27**	5, 89				.54
	Age			-0.63	-3.94***	-.39	
	Family income			5.73	2.55**	.26	
	Presence of additional diagnoses			-10.78	-2.86**	-.29	
	Self-esteem			10.14	2.21*	.23	
4.	Personal characteristic	24.27***	1, 88				.64
	Age			-0.52	-3.65***	-.36	
	Education			-3.53	-2.10*	-.22	
	Presence of additional diagnoses			-7.36	-2.15*	-.22	
	Coping Self-efficacy			7.91	4.93***	.47	

Note. **p*< .05, ***p*< .01, ****p*< .001.

The results of the regression analysis revealed that the variables entered in the first step accounted for 35.1 % of the variance in PHC score, which was significant (F (6, 99) = 8.92, p < .001). The variables in the second step, explained 10.2 % of the variance (F (5, 94) = 3.52, p < .01). Variables in third step accounted for 8.5 % of the variance (F (5, 89) = 3.27, p < .01). In the final step, coping self-efficacy explained 10.0 % of the variance (F (1, 88) = 24.27, p < .001).

As can be seen from table 11, age (F change [6, 99] = 8.92, p <. 001 ; pr = -.36, t [99] = -3.65, p <. 001), education (F change [6, 99] = 8.92, p <. 001; pr = -. 22, t [99] = -2.10, p <. 05), presence of additional diagnosis (F change [5, 94] = 3.52, p <. 01; pr = -. 22, t [94] = -2.15, p <. 05) and coping self-efficacy (F change [1, 88] = 24.27, p <. 001 ; pr = .47, t [88] =4.93, p <. 001) measures significantly associated with PHC. The results showed that increase in age, presence of additional diagnosis and education related to lower PHC score, whereas higher coping self-efficacy related to higher PHC score.

4.7.5 The Predictors of Mental Health Component Score of Quality of Life (MHC)

Table 17 presents the significant variables for each step of regression analysis for the MHC.

Table 17. *Predictors of the MHC*

Order of Entry of set	Predictors in set	F for set	df	B	t for with-in set predictors	Partial correlation (pr)	Model R^2
1.	Sociodemog.	4.99***	6, 99				.23
	Age			-.72	-3.59***	-.34	
	Family income			6.61	2.34*	.23	
	House ownership			8.31	2.10*	.21	
2.	Illness charact.	3.14**	5, 94				.34
	Age			-.51	-2.54**	-.25	
	Family income			8.07	2.90**	.29	
	Presence of additional diagnoses			-16.87	-3.55***	-.34	
3.	Personal characteristics	5.43***	5, 89				.50
	Age			-.39	-2.10*	-.22	
	Presence of additional diagnoses			-12.74	-2.90**	-.29	
	Self-esteem			11.37	2.12*	.22	
	Perceived C/H			-21.15	-1.97*	-.20	
4.	Personal characteristic	13.16***	1, 88				.56
	Presence of additional diagnoses			-9.64	-2.29*	-.24	
	Coping Self-efficacy			7.16	3.63***	.36	

Note. *p< .05, **p< .01, ***p< .001.

The results of the regression analysis revealed that the variables entered in the first step accounted for 23.2 % of the variance in MHC score, which was significant (F (6, 99) = 4.99, p < .001). The variables in the second step, explained 11.0 % of the variance (F (5, 94) = 3.14, p < .01). Variables in third step accounted for 15.4 % of the variance (F (5, 89) = 5.43, p < .001). In the final step, coping self-efficacy explained 6.6 % of the variance (F (1, 88) = 13.16, p < .001).

As can be seen from table 12, presence of additional diagnosis (F change [5, 94] = 3.14, p <. 01; pr = -.24, t [94] = -2.29, p <. 05), and coping self-efficacy (F change [1, 88] = 13.16, p <. 001 ; pr = .36, t [88] =3.63, p <. 001) measures associated significantly with MHC score. The results showed that increase in the presence of additional diagnosis related to lower levels of MHC score, whereas higher in coping self-efficacy related to higher level of MHC score.

4.7.6 The Predictors of Overall Quality of Life Score of Short Form-36 Health Survey (SF36)

Table 18 presents the significant variables for each step of regression analysis for the SF36.

Table 18. *Predictors of the SF36*

Order of Entry of set	Predictors in set	F for set	df	B	t for with-in set predictos	Partial correlation (pr)	Model R^2
1.	Sociodemog.	7.60***	6, 99				.32
	Age			-.81	-4.75***	-.43	
	Family income			7.03	2.95**	.28	
	House ownership			7.16	2.14*	.21	
2.	Illness charact.	3.82**	5, 94				.43
	Age			-.60	-3.58***	-.35	
	Family income			8.03	3.47***	.34	
	Presence of additional diagnoses			-15.22	-3.85***	-.37	
3.	Personal characteristics	5.30***	5, 89				.56
	Age			-.51	-3.28***	-.33	
	Family income			5.02	2.30*	.24	
	Presence of additional diagnoses			-11.76	-3.21**	-.32	
	Self-esteem			10.75	2.41*	.25	
4.	Personal characteristic	22.93***	1, 88				.65
	Age			-.41	-2.92**	-.30	
	Presence of additional diagnoses			-8.50	-2.53*	-.26	
	Self-esteem			8.71	2.16*	.23	
	Coping Self-efficacy			7.53	4.79***	.46	

Note. *$p < .05$, **$p < .01$, ***$p < .001$

The results of the regression analysis revealed that the variables entered in the first step accounted for 31.5 % of the variance in SF36, which was significant (F (6, 99) = 7.60, $p < .001$). The variables in the second step, explained a further 11.6 % of the variance (F (5, 94) = 3.82, $p < .01$). Variables in third step accounted for 13.1 % of the variance (F (5, 89) = 5.30, $p < .001$). In the final step, coping self-efficacy explained 9.1 % of the variance (F (1, 88) = 22.93, $p < .001$).

As can be seen from table 13, age (F change [6, 99] = 7.60, $p <. 001$; $pr = -.30$, t [99] = -2.92, $p <. 01$), presence of additional diagnosis (F change [5, 94] = 3.82, $p <. 01$; $pr = -.26$, t [99] = -2.53, $p <. 05$), self esteem (F change [5, 89] = 2.16, $p <. 05$; $pr = .23$, t [89] and coping self-efficacy (F change [1, 88] = 22.93, $p <. 001$; $pr = .46$, t [88] = 4.79, $p < .001$) measures associated significantly with SF36 score. The results showed that, although, increase in age and presence of additional diagnosis related to lower level of SF36 score, increase in self esteem and coping self-efficacy related to higher SF36 score.

4.7.7 Results of the Mediated Regression Analyses of The Predictors of Overall Quality of Life Score of Short Form-36 Health Survey

To test for direct and indirect effects of predictors on outcome variable, which was the overall quality of life score (SF36), a series of hierarchical regression analyses were conducted. Whether the relations between predictors and criterion (SF36) were mediated by the mediator variable (coping self-efficacy) was also tested. Details of the procedure was described in section 7.2.

Results of the mediational analysis showed that age, income, additional diagnosis, and self esteem as predictors and coping self efficacy as a mediator fulfilled the requirements of three patterns of relationships for the mediation. Sobel test was conducted for each variable to identify either full mediation or partial mediation was established. Figure 3 presents the results of the mediational analysis for the overall quality of life score (SF36).

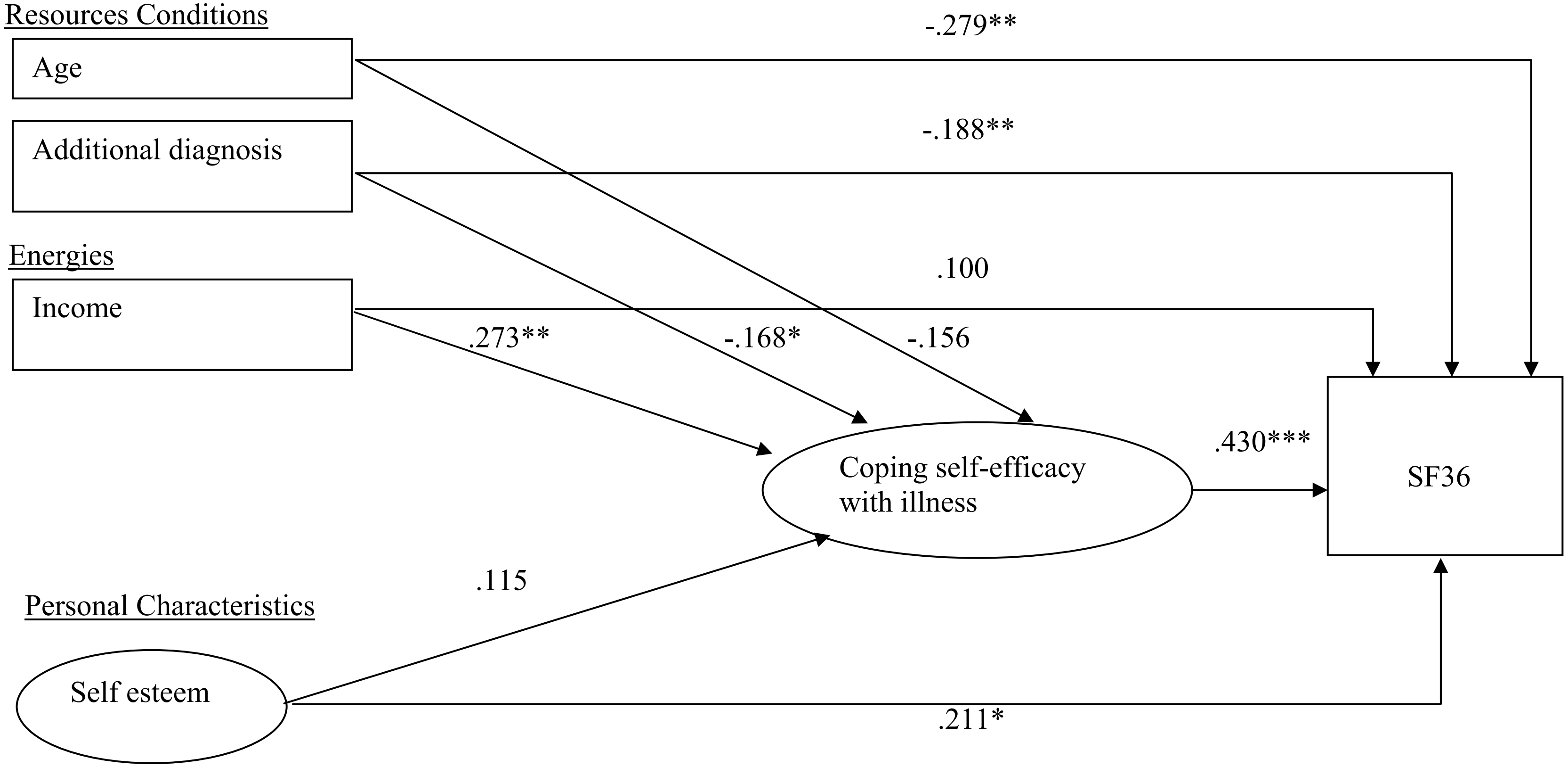

Figure 3. Mediational Analysis of Resources, Mediator and overall QOL (Adapted from Hobfoll's Theory of Conservation of Resources, 1989). * *p*< .05, ** *p*< .01.

The results of the regression analysis revealed that although the standardized coefficients of the age entered in the third step was significant (Beta = -.347, $p < .001$), at the fourth step the effect of the age on the SF36 minimized upon the addition of the coping self-efficacy to the regression (Beta = .430). To test whether a mediator carries the influence of age to SF36, Sobel test was conducted. The result of the Sobel test was not significant ($z = -1.38$, $p > .05$) and showed that there is no mediation effect and reduction in the main effect (Beta = -.347, $p < .001$) by mediated effect (Indirect effect = -.067, Direct Effect = -.279).

The results of the regression analysis revealed that although the standardized coefficients of the family income entered in the third step was significant (Beta = .217, $p < .05$), at the fourth step the effect the family income on the SF36 minimized upon the addition of the coping self-efficacy to the regression (Beta = .430). To test whether a mediator carries the influence of the family income to SF36, Sobel test was conducted. The result of the Sobel test was significant ($z = 2.38$, $p < .05$) and showed that there is a mediation effect and reduction in the main effect (Beta = .217, $p < .05$) by mediated effect (Indirect effect = .117, Direct Effect = .100).

The results of the regression analysis revealed that although the standardized coefficients of the presence of additional diagnoses entered in the third step was significant (Beta = -.260, $p < .01$), at the fourth step the effect of the presence of additional diagnoses on the SF36 being minimized upon the addition of the coping self-efficacy to the regression (Beta = .430). To test whether a mediator carries the influence of presence of additional diagnoses to the SF36, Sobel test was conducted. The result of the Sobel test was not significant ($z = -1.80$, $p > .05$) and showed that there is no mediation effect and reduction in the main effect (Beta = -.260, *p* < .01) by mediated effect (Indirect effect = -.072, Direct Effect = -.188).

The results of the regression analysis revealed that although the standardized coefficients of the self esteem entered in the third step was significant (Beta = .260, *p* < .05), at the fourth step the effect of the self esteem on the SF36 being minimized upon the addition of the coping self-efficacy to the regression (Beta = .430). To test whether a mediator carries the influence of self esteem to the SF36, Sobel test was conducted. The result of the Sobel test was not significant (z = 0.98*,* *p* >.05) and showed that there is no mediation effect and reduction in the main effect (Beta = .260, *p* < .05) by mediated effect (Indirect effect = .050, Direct Effect = .211).

As a summary, results of the mediation analysis showed that although the relations between predictors (age, income, additional diagnosis, and self esteem) and criterion (SF36) were mediated by the mediator variable (coping self-efficacy), Sobel test revealed that the only relationship between income and SF36 fully mediated by the coping self-efficacy.

4.7.8 Summary for the Regression and Mediational Analyses

Summary table presented the general results of the four regression and two mediational analyses.

Dependent Variables	Demographic Variables	Illness related Variables	Personal Resources	Mediator	Mediated Variables by the Coping Self-efficacy
Well being (WB-12)	Age (-) *		Self-esteem (+) ** C/H (-) *	Coping Self-efficacy (+) **	Age Year of kidney disease Duration of haemodialysis treatment (-) * Additional diagnosis Optimism Self esteem C/H
Physical Health Component Score of Quality of Life (PHC)	Age (-) ***	Additional diagnosis (-) *		Coping Self-efficacy (+) ***	
Mental health Component Score of Quality of Life (MHC)		Additional diagnosis (-) *		Coping Self-efficacy (+) ***	
Overall Quality of Life Score of SF-36 (SF36)	Age (-) **	Additional diagnosis (-) *	Self-esteem (+) *	Coping Self-efficacy (+) ***	Age, Income (+)* Additional diagnosis Self esteem

Table 19. *General Results of Regression and Mediational Analyses*

Note. C/H = Criticism/Hostility; EOI= Emotional over involvement; *$p < .05$, **$p < .01$, ***$p < .001$.

CHAPTER V

DISCUSSION

The first aim of the present study was to examine the main assumption of the Conservation of Resources (COR) model, which suggests that resources will influence the psychological well-being and quality of life (QOL) of patients. This study aimed to examine this model for patients on haemodialysis treatment. The second aim of the study was to examine the mediational role of coping self-efficacy in the association between resources and psychological well-being and QOL. In the following section, results of the study, regarding the effects of the different kinds of resources (sociodemographic and illness related, personal and environmental resources) on well-being and QOL, and the mediational role of coping self-efficacy in these associations will be discussed in the light of COR model.

5.1 Results of the Study In the Light of the Conservation of Resources Model

The Conservation of Resources (COR) model, proposed by Hobfoll (1989), is a general model of stress that provides a method of simultaneously examining personal, social, and environmental factors that contribute to psychological outcomes. Stress is a reaction to an environment in which there is the threat of a loss of resources, an actual loss in resources, or lack of an expected gain in resources. The COR model proposes that individuals seek to acquire and maintain resources and resources include objects, conditions, personal characteristics, and energies. To date, the Conservation of Resources stress model (Hobfoll, 1989) has been applied in variety of research areas (Grandey et al., 1999; Rosenbaum et al., 1999; Ito et al., 2003; O'Neill et al., 1999; MacKenzie et al., 1999). To our knowledge, the current study is the first to apply the COR model for the haemodialysis patients. COR theory asserts that the threat of haemodialysis is an additional stressor facing patients who are already overburdened in their coping efforts with a chronic illness. Hobfoll (1989) argues that change itself is not the source of stress, but change resulting in a loss of valued resources is most problematic. COR model offers a theoretical guide for comprehending the chronic illness and psychological outcome literature. First, it suggests specific hypotheses about relationships between different resources and a broad range of outcomes. Second, COR allows for predictions about the mediating relationship of self-efficacy among these chronic illness and psychological outcome variables.

In the light of the COR model, for the current study, resources of patients on haemodialysis treatment gathered and classified as objects, conditions, personal characteristics, and energies. Then relationships between resources and outcome variables which were well-being and QOL measures were examined. The results of this study supported previous empirical research and basic tenets of Hobfoll's (1989) COR model. In general, the model demonstrated that most of the predicted relationships between resources and outcome variables were significant. Age, education, presence of additional diagnosis, self esteem, and criticism-hostility (C/H) were predictors of outcome variables. Furthermore, results supported the theoretical prediction that as a personal resource, coping self-efficacy related to the outcome variables as reflected across a variety of measures (well being, physical and mental health component, and overall quality of life). Additionally coping self-efficacy fully mediated the relationships between duration of haemodialysis and well-being; and income of the family and the overall QOL. Details of these results will be discussed in the following coping self-efficacy section. However, coping self-efficacy did not fully mediate the relationship between other resources and well-being and overall QOL measures. This suggests that, although coping self efficacy was an important variable, the relationships between the other resources and well-being and QOL are more direct than what has been hypothesized. The COR model received support from this study as a guide for chronic illness and well being and QOL research. It provided a means for predicting and understanding resources and well-being and QOL of haemodialysis patients. It also provided the mechanism by which individual differences can create difference in well-being and QOL. This comprehensive model provided a theoretical basis for the future studies related to chronic illness and psychological variables. Additionally, the COR model also proposes that replacement of lost resources can reduce distress. Although this prediction has need to be tested empirically in haemodialysis patients, the relationship between resource loss and psychological outcomes provides guidelines for the intervention programs' goal, which should be to assist individuals in restoring their lost resources.

5.2 Effects of Object Resources and Conditions on Outcome Variables

Age was significantly and negatively related to well-being, and all subscales and composite scores of quality of life (QOL) measure (Short Form-36 Health Survey; SF-36), except for mental health component score (MHC) of QOL. QOL literature, used SF-36 as an instrument, related to age, supported this finding for variety of populations. Such as, constant negative effect of age on physical functioning of coronary artery disease patients (Hofer et al., 2005), and negative impact on global assessment of QOL in a comparison study between general population and hospital inpatients with various somatic and psychiatric diseases (Kilian et al., 2001) were reported. Additionaly, significant negative relationship between age and level of QOL was also found for the general population (Wahl et al., 2004). Negative effect of age on haemodialysis patients was also underlined in the health literature. For example, 146 chronic dialysis patients (haemodialysis and peritoneal dialysis) were compared with the general population and it was reported that the health related QOL of dialysis patients were worse when compared to the general population and decline was the greatest for the role limitations related to physical problems with increasing age. (Carmichael et al., 2000). Similar effect of age was also found for the haemodialysis patients, older than sixty years old (Molsted et al., 2004). In a similar line, Mallick and Gokal (1999) stated that some patients have survived more than 20 years on haemodialysis and have had rewarding family and working lives, however, survival decreases with increasing age. Moreover, they stated that, this negative effect of age, explained partly by the greater cardiovascular morbidity of older patients besides the presence of diabetes, equivalent to an extra decade of age in terms of survival and impact of hypertension. In a consistent way, in the present study, results showed that, presence of additional diagnosis was a predictor of all three scores of QOL (physical, mental and overall) and increase in the presence of additional diagnosis related to lower levels of QOL. Furthermore, more than one third (37.7 %) of the participants of the main study and almost half the participants of the pilot study (49.1 %) had other chronic illnesses, in addition to end stage renal disease. Moreover, concerning the type of other chronic illnesses, the participants of both the pilot and the main study reported, particularly diabetes and cardio vascular disease as the most common first and second chronic illness. This result of the current study is in line with the statement of Mallick and Gokal (1999) regarding the additional diagnosis of haemodialysis patients. Thus, consistent with the literature, results of the current study underlined the importance of age and additional chronic illness of haemodialysis patients in well-being and QOL.

Examination of the sample characteristics show that 61.3 % were male, %67 percent of the patients' primary school or less educated and 76.4 % were married. Only 9.4% were working and more than half of them (52.8 %) were retired due to illness. Almost half of the patients' (54.3%) families' monthly income is 500 YTL or less. Of the total 62.3 % of the participants reported their spouse as a primary caregiver followed by their parents (15.1% respectively). The characteristics of the present sample seem to be lower socioeconomic status. However, characteristics of the sample are similar to other studies conducted with the haemodialysis patients in Turkey. Ünlüoğlu, Özden, and İnce (1997), reported that, of the total 131 haemodialysis patients from the haemodialysis unit of Ankara University Hospital, % 58.8 were male, % 40 were unemployed and %50.4 were primary school graduated. In another study with a 200 haemodialysis patients with renal failure being treated at various dialysis units in Istanbul, patients were mostly male (62%), married (67%) and had primary school education (55%), only 31% were currently in regular employment; and 65% were on a low income for the majority the primary source of support was the spouse, followed by their children (76% and 19%, respectively) (Elal & Krespi, 1999). Similar results were also found from different countries. For example, in a study conducted in Denmark with a 112 haemodialysis patients, % 63.9 were male, %72.6 were low educated and only a small proportion of patients were employed (22%) (Molsted et al., 2004). In a study conducted in UK, from a total of 190 chronic dialysis patients it was found that less than 10% of them had part-time or fulltime job (Carmichael et al., 2000). In a research, included both qualitative and quantitative study in UK, results of the quantitative study from a 166 haemodialysis patients, 87 (56%) were male, fifteen patients (10%) were employed, 44 (28%) were unemployed, 72 (46%) were retired and 25 (16%) were homemakers (Krespi, Boneb, Ahmad, Worthington, & Salmon, 2004). Low rates of employment rate and income may in part be a consequence of poor physical functioning due to illness. Consistently 52.8% of the haemodialysis patients were retired due to illness in this sample, although mean age of the patients was 48.5 years old. Thus, it is likely that being a haemodialysis patient depletes some resources of this group.

Variables related to illness and haemodialysis that may be expected to contribute to well-being and QOL, such as; years of kidney disease, and number of haemodialysis sessions per week, had either little or no effect on well-being and QOL. Lack of deterioration in well-being and QOL with increasing length of time on haemodialysis may reflect psychological accommodation to haemodialysis. In a similar way, it was stated that hospital admission rates are highest in the first year of dialysis; thereafter, patients whose treatment is working well attend the centre only for dialysis and for outpatient follow-up (Mallick & Gokal, 1999).

Furthermore, education was a predictor of physical health component score of QOL, but contrary to previous findings (Elal & Krespi, 1999; Wahl et al., 2004), in the current study higher education level related to lower physical health. It might be that an under representation of university graduated patients (only 4.7%) in the sample, would alter the results significantly.

5.3 Effects of Personal Characteristic Resources on Outcome Variables

To find out the predictors of outcome variables of the study, well-being, physical and mental health component and overall quality of life (QOL) scores, four regression analyses were conducted. Results of the regression analysis revealed that coping self-efficacy and self esteem are significant predictors for well-being and overall QOL measures. Increase in coping self-efficacy and self esteem related to better psychological well-being and better overall QOL (SF36). However, relationships between predictor variables of optimism and outcome variables were not significant. Results of the regression analyses will be discussed below.

5.3.1 Coping Self-efficacy

Symptom Distress Scale (SDS) and Coping Self Efficacy Scale (CSES) were constructed for this study. Therefore, the reliability of these instruments was initially examined, and both for the pilot and main study internal consistency analyses were performed. Although the factor analysis of SDS and CSES resulted in two factor structures, physical and psychosocial problems of haemodialysis, for the pilot study, for the main study a single factor structure was obtained. Decision to use the single structure for both scales for the main study was related to the hypotheses of the study. There were not specific hypotheses regarding the different effects of the physical and psychosocial problems and coping self- efficacy related to these problems. Besides validation of the SDS and CSES for the haemodialysis patients, reliability measures of scales were in an acceptable ranging both in the pilot and in the main studies. Correlations of the SDS and CSES with the other variables for the pilot study were in line with the expectations. Thus correlations of SDS and CSES in an expected way provided support for the concurrent validity of SDS and CSES scales.

Results of the regression analysis revealed that coping self-efficacy is a significant predictor for the well-being and all three scores of quality of life (QOL) measures and higher coping self-efficacy related to better psychological well-being and better QOL (physical, mental and overall). The fact that significant predictor role of self efficacy occurred for all four measures of psychological well-being and QOL puts confidence in the robustness of this association. In a similar line with the result of the study, coping self-efficacy has been shown to be positively related to QOL in cancer patients (Turk & Feldman, 1992), QOL and well-being in patients having types 1 and 2 diabetes (Eiser et al., 2001) and better disease management (Clark & Dodge, 1999). Moreover, role of self-efficacy in QOL and psychological well-being was also reported for the patients with asthma, diabetes and heart failure (Kuijer & De Ridder, 2003). Among recurrent breast cancer patients, self-efficacy was also found to be the strongest predictor of psychological aspects of women's quality of life (Northouse et al., 2002).

There is a need to identify modifiable variables, such as, coping self-efficacy that predicts well-being and QOL. Coping self efficacy can impact the way in which people approach life circumstances or the kinds of outcomes people receive, which in turn can impact favorably or unfavorably well being and QOL. Thus a series of hierarchical regression analyses were conducted to test for direct and indirect effects of variables entered into the regression analysis on psychological well-being and QOL in order to examine whether, these relations were mediated by coping self-efficacy.

Our findings supported the mediational hypothesis for two variables; duration of haemodialysis and income. It was found that higher coping self-efficacy in achieving better psychological well-being mediated the association between haemodialysis duration and well-being. It was also found that higher coping self-efficacy in having higher QOL (SF36) mediated the association between patients' families' monthly income and the QOL. It should be mentioned that, although the mediation effect of the self efficacy between the two predictors (haemodialysis treatment duration and income) and two criterions (well being and mean score of QOL) were significant, the number of these associations were small regarding the number of predictors. This reflects the more modest assumption of mediational role of self efficacy that the extent to which predictors have direct effect on well being and mean score of QOL, rather than the assumption made by the hypothesis of the study that the extent to which self-efficacy mediates the relationship between the predictors and criterions of the study.

An alternative explanation for this modest mediational role of self-efficacy may be related to the fact that specific coping self-efficacy for the illness related physical and psychosocial problems were used in the study. DiMattew, and Martin (2002), proposed that self-efficacy refers to an individual's judgment of his or her own ability and this ability can be specific (to carry out a particular behavior) or more general (to accomplish things and be successful). In a similar way, in the current study coping self-efficacy was calculated as weighted variable based on the product of symptom distress and coping self-efficacy scores. Items of Symptom Distress Scale (SDS) included distress for physiological, psychological and psychosocial stressors of haemodialysis patients. As a result of multiplication of SDS and Coping Self Efficacy Scale (CSES) scores of the patients were obtained. The SDS has provided a detailed account of the distress of haemodialysis patients about their illness, and about the main components of its treatment. Consequently, CSES evaluated patients' perceived coping self-efficacy about their illness and its treatment. Thus, results of the regression analysis underlined the importance of the illness specific problems and the perceived coping self-efficacy of the patients with these problems in predicting physical health. Thus, in contrast with the general measure of self efficacy approach (Schwarzer, Boehmer, Luszczynska, Mohamed, & Knoll,2005), in this study, coping self efficacy was specific to illness related problems. Similar to other studies, that used specific measurement of self-efficacy (Karademas & Kalantzi-Azizi 2004), instead of the general coping self-efficacy measures of the patients, illness specific self-efficacy measure was used. In same line, Bandura (1997b) argues that self-efficacy perceptions are task specific and that measures of self-efficacy should show close correspondence to the dependent measures. Moreover, in the present study the scale for coping self-efficacy is more compatible in getting better psychological well-being and QOL and as such it does not seem to be surprising that the strong relationships.

5.3.2 Self-esteem

Self-esteem level refers to people's representations of their typical, or general, global feelings of self-worth. In this research, participants completed a standard measure of global self-esteem for adults, Rosenberg Self-Esteem Scale (RSES) (1965); under instructions to how they typically, or generally, feel about themselves. Reliability measure of the scale was in an acceptable range for the main study. In an expected way, there are positive correlations between RSES and income, knowledge about illness, well being, optimism, coping self efficacy, emotional overinvolvemet, subscales and all the component scores (physical, mental and overall scores) of quality of life (QOL) and negative correlations between RSES and symptom distress and criticism-hostility. Suggesting that patients with higher self esteem had higher income, illness related knowledge, optimism, coping self efficacy, perceived emotional overinvolvement, psychological well being and QOL in all dimensions. Regression analysis revealed that higher self esteem related to better psychological well-being and better general QOL (SF36). This finding was in a similar line with the previous findings that self esteem has been found to be associated with both physical and psychological health (Benyamini et al., 2004; Glendinning, 1998; Makikangas & Kinnunen, 2003; Schroevers et al., 2003) and less depressive symptoms in chronically diseased persons (Bisschop et al., 2004; Nagyova et al., 2005; Schroevers et al., 2003; Vilhjalmsson, 1998).

Following the mediational analysis to test whether coping self efficacy (mediator) carries the influence of self esteem to psychological well-being and SF36, two Sobel tests were conducted. Both analyses showed that there is no mediation effect of coping self-efficacy and reduction in the main effect of self esteem either on well being or on overall QOL. The model suggests that self esteem and coping self-efficacy are distinct phenomenon and self esteem has a direct effect on well being and overall QOL rather than an indirect effect through coping self efficacy. Because self-esteem level reflects people's representations of how they typically feel about themselves across time and context, these findings may indicate that self esteem is a more general construct than coping self efficacy used in the present study. In another words, mediation analysis suggests that self esteem and coping self efficacy are distinct phenomenon, both influencing well-being and overall QOL. In a consistent way it has been shown that self esteem related the the globality dimension of attributional tendency (Campbell, Chew, & Scratchley, 1991). Individuals with a low level of self-esteem tended to attribute failure to more global factors, which may reduce their efforts to pursue any goal because the factors that caused failure in one task may be embedded in all tasks. In contrast, individuals with high self-esteem make more specific attributions in the face of failure. Thus their failure is not likely inhibit their efforts to achieve the goal in a new situation, because specific causes of failure relevant to the previous goal are not likely to be relevant then (Campbell et al., 1991). Moreover, Makikangas and Kinnunen, (2003) investigated the role of self-esteem in the relationship between psychosocial work stressors and well-being for a sample of Finnish employees. They reported that self-esteem was an important resource which has both a main effect as well as a moderator effect on well-being. Thus result of the current study supported the direct effect of self esteem on well-being.

As a support for the general structure of the self esteem measure of the study, Rosenberg (1986), distinguished between barometric and baseline instability. Baseline instability refers to long-term fluctuations in one's self esteem that occurs gradually over an extended time period. In contrast, barometric instability reflects short-term fluctuations in one's contextually based global self-esteem (Rosenberg, 1986). Similarly, Kernis, distinguished between stability of self esteem and level of self esteem (2005) and he suggested that "Stability of self-esteem refers to the magnitude of short-term fluctuations that people experience in their current, contextually based feelings of self-worth. In contrast, level of self esteem refers to representations of people's general, or typical, feelings of self-worth". Moreover, he measured self-esteem stability as different from the self esteem level by asking people to complete a measure of global self-esteem (for adults Rosenberg's (1965) Self-Esteem Scale) once or twice daily for periods ranging from 5 to 7 days, with instructions to base their responses on how they feel ''at the moment'' they were completing each form (2005). But aside from differences in levels of specificity of measurement, it was stated that there was also a difference in affectivity, such that global self-esteem is heavily invested with feelings about the self, whereas specific facets of self-esteem include a variety of self-related thoughts (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). The findings that emerged in this study indicate that self esteem measures of the study has predictive value for the haemodialysis patients. However, full understanding of self-esteem processes for the haemodialysis patients will require taking into consideration multiple components of self-esteem in future studies. Similarly, after reviewing of self esteem related studies, it was also summarized that the benefits of high self-esteem, including feeling good and better health, worth further study (Baumeister, Campbell, Krueger, & Vohs, 2003).

5.3.3 Optimism

It was suggested that commonly defined optimism reflects an expectation that good things will happen (Chang, 2001). Optimists were defined as people who expect good experiences in the future (Carver & Scheier, 2001) and expect o have positive outcomes, even when things are difficult (Scheier, Carver, & Bridges, 2001). One of the most popular measures of optimism has been Scheier and Carver's (1985) The Life Orientation Test (LOT). This instrument was used to assess optimism and pessimism in the current study. Reliability measures were within the acceptable ranges. Consistent with the expectations, optimism positively correlated with well being, self esteem, coping self efficacy, and all of the component scores of quality of life (QOL) measure (SF-36). Furthermore it correlated negatively with presence of additional dignosis, symptom distres, and criticism-hostility (C/H). Suggesting that patients with higher scores of optimism had higher levels of well being, self esteem, coping self-efficacy, and QOL in all dimensions of SF-36 measure. However, the presence of additional diagnosis and increase in symptom distres and C/H related with lower levels of optimism. Although there are correlations of optimism with the other measures of the study in an expected way, regression analysis showed that relationships between optimism and outcome variables were not significant. Concerning the literature, variety of empirical studies of optimism has attempted to establish a relationship between optimism and health. For example, it was suggested that optimism predicts good health measured in a number of ways from self-report, to physician ratings of general well-being, to doctor visits, to survival time following heart attack, to faster physical recovery, to immunological efficiency, to successful completion of rehabilitation programs to longevity (Leventhal et al., 1997; Northouse et al., 1999; Scheier et al., 1989; Peterson & Bossio, 2001; Updegraff, & Taylor, 2000). Anderson also found consistent effects of dispositional optimism for the meta-analysis of 56 studies reporting physical symptoms, coping strategies, and negative affect using LOT (1996). In another prospective study conducted with adult patients with asthma and women with primary fibromyalgia syndrome, it was concluded that emotional states were the most reliable consequences of optimism and pessimism but not physical well-being (Affleck, Tennen, & Apter, 2001). An explanation for this non-significant role of optimism in the present study may be due to the cross sectional nature of the study. This issue was addressed by the Peterson and Bossio (2001). They argued that the ideal investigation of the psychological precursors of illness including optimism and pessimism should satisfy procedural criteria such as; longitudinal research design which may require several years or even decades.

Moreover, another explanation may be that conceptual similarities between self esteem and optimism constructs, may affect the relationship of optimism and outcome variables. As a supportive way it was suggested that optimism and self esteem are likely to be interrelated (Chang, 2001), in addition to 21-year longitudinal study results supported the conceptual similarities between self esteem and optimism constructs and persistence of this similarity even over 21 years (Heinonen, Raikkonen, & Keltikangas-Jarvinen, 2005). Thus, there is a need for longitudinal studies to establish the relationship between optimism and quality of life of haemodialysis patients. Moreover optimism has been differently defined in the literature such that, it is represented by three basic beliefs, namely positive outcome expectancies, positive efficacy expectancies, and positive unrealistic thinking (Schwarzer, 1999). Including different components of optimism into the research studies might also provide additional information.

5.4 Effects of Social Resources on Outcome Variables

Predictors of outcome variables of the study, well-being, physical and mental health component and overall quality of life (QOL) scores, were predicted by means of four regression analyses. It was found that criticism-hostility (C/H) is a significant predictor of well-being. Increase in C/H related to worse psychological well-being. However, relationships between predictors variable of emotional overinvolvement and social support and outcome variables were not significant. Results of the regression analyses will be discussed below.

5.4.1 Perceived Expressed Emotion

Haemodialysis patients' evaluation of their caregivers related to expressed emotion (EE) constructs was measured with the Perceived Expressed Emotion Scale (PEES). Although, scale was originally developed to measure the EE level in interpersonal relations and used obtaining an assessment of the caregiver of the patient; it was changed to reflect patients' perceptions of the caregivers' emotions for this study. Because item modifications were made to produce the PEES for application in this study, the reliability of this modified instrument was initially examined, and both for the pilot and main study internal consistency analyses were performed. Factor analysis of PEES resulted in two factors, emotional overinvolvement (EOI), and criticism-hostility (C/H), similar to original Expressed Emotion Scale of Berksun (1992). Besides validation of the PEES, for the haemodialysis patients, reliability measures of the scale were in an acceptable range for both the pilot and the main studies. In an expected way, in the pilot study C/H was negatively correlated with well-being and positively correlated with symptom distress. In the main study, C/H was negatively correlated with income, well-being, optimism, self esteem, social support, and coping self efficacy, some of the subscales and component scores of quality of life (QOL) measure (SF-36) and positively correlated with having child, number of family members and symptom distress. Moreover, EOI had positive correlations with self esteem and energy-vitality subscale of SF-36. For the pilot and main study C/H and EOI were correlated negatively. Thus correlations of C/H and EOI in an expected way provided support for the concurrent validity of the C/H and EOI constructs.

The results of the regression analyses revealed that perceived C/H is a significant predictor for the well-being and increase in perceived C/H related to lower levels of well-being. However, relationships between perceived EOI and outcome variables were not significant. This pattern of finding, significant predictive value of perceived C/H opposite of perceived EOI, is in line with other studies that have examined the relationship between EE and illness severity. Renshaw et al. (2001) investigated whether comorbid diagnoses or traits mediate the relationships between EE and perceived criticism variables and treatment outcome in anxiety disorders. Participants were 101 outpatients with either obsessive compulsive disorder or panic disorder with agoraphobia and a relative of each of these patients. Treatment was exposure-based and consisted of 22 sessions and outcome measures were anxiety symptom severity, social functioning, dropout, and depressive symptom severity. It was reported that perceived criticism of patients was the only significant EE related predictor of posttreatment target ratings. Kavanagh (1992) also suggested that EOI may not be as strongly related to outcome as critical comments. Consistently, EE in parents of forty-seven children with Type 1 diabetes were studied over 24 months to examine the relation between EE and glycaemic control of children and they did not find a predictive value of EOI in glycaemic control (Worrall-Davies et al., 2002). A review which considered all published studies that have assessed the attributions of high and low EE relatives and carers, concluded that although, critical relatives are more likely to hold patients responsible for their difficulties, attributions made by emotionally over-involved relatives are similar to the attributions made by those who are low EE (Barrowclough & Hooley, 2003). Similarly Kim and Miklowitz (2004) evaluated whether EE levels among caregivers moderated the success of family-based psychosocial interventions for patients with bipolar disorder. It was found that a higher frequency of critical comments predicted higher levels of mania and depression at follow-up. Another study was reported significant effect of total expressed emotion measure and criticism level of fathers with a child who had been diagnosed with asthma (Gartland & Day, 1999). Besides the EE literature, Helgeson (2003) in her study of social support and QOL suggested that in addition to positive aspects of the social environment, social relationships also could be a source of conflict, stress, and tension. However, there are contradictory reports related to patient' EE and illness severity. Such as, Moore et al. (2002) measured EE in staff and patient relationships in three forensic services for in-patients with a history of mental disorder, using a prospective design, with a 12-month follow-up of staff and patient outcomes. They reported that patient' EE was not predictive of rehabilitative outcome. But, Lenior et al. (2002), after analyzing the stability of parental EE over about 9 years related to the course of illness in patients with recent-onset schizophrenia; suggested that higher levels of criticism in parents might be due to an unfavourable course of the illness among patients. In accordance with this suggestion, in a study that explored the care-giving experiences of informal carers in cancer contexts, it was stated that additional care work demands were an important feature of informal carers' experiences and this varied with the stage of the patient's disease and with the presence of either co-morbidity in patients or morbidity in carers (Thomas, Morris, & Harman, 2002). Another study, conducted with the parents' of epilepsy patients, reported that in addition to paternal critical comments (C), presence of any seizures in the last 6 months also varied with maternal EOI (Brown, & Jadresic, 2000). Thus understanding how EE attitudes impact on medical conditions would be enhanced if future work on EE includes measures of other variables, such as, course and the stage of the illness, presence of comorbidity, and including caregivers' level of EE related information. It may therefore give some answers on the question of vulnerability to EE and whether certain characteristics of the individual patient are protective and how clinicians can support these families most effectively.

Following the regression analysis, mediational analysis and Sobel test were conducted in order to test whether coping self efficacy (mediator) carries the influence of perceived C/H to psychological well-being. Analysis showed that there is no mediation effect of coping self-efficacy and reduction in the main effect of perceived C/H on well being. The model suggests that perceived C/H and coping self-efficacy are distinct phenomenon and perceived C/H was additive in predicting well-being rather than the indirect effect through the coping self efficacy. Finding of direct effect of perceived C/H rather than indirect effect, strengthen the predictive validity of perceived C/H. This finding is consistent with Renshaw et al.'s (2001) study, described above, investigated whether comorbid diagnoses or traits could mediate the relationships between EE and perceived criticism variables and treatment outcome in anxiety disorders. It was reported that regardless of the outcome measure, the prediction of outcome by perceived criticism and EE variables was not mediated by comorbidity variables.

5.4.2 Social Support

Helgeson (2003) suggested that social support is a broad term, which includes the supportive ways that different people behave in the social environment. Social support was evaluated with MSPSS scale in this study. The internal consistency reliability of The Multidimensional Scale of Perceived Social Support (MSPSS) was found within the acceptable range for the main study. In line with the expectations, the social support measure positively correlated with income, knowledge, well being, self esteem, coping self efficacy, and some of the component scores of quality of life (QOL) measure (general health perceptions, energy-vitality, social functioning, role limitations related to emotional problems, mental health, physical health component of QOL, mental health component of QOL, and overall QOL score) furthermore it correlated negatively with symptom distres, and criticism-hostility. Suggesting that patients perceiving high levels of social support had higher income, illness related knowledge, well being, self esteem, coping self efficacy, and QOL, mostly in mental health dimensions, besides the general health, physical health component of QOL and overall QOL measures. However, regression analysis showed that the relationships between social support and outcome variables were not significant. This result is not in line with the social support literature which, shows a consistent relationship between social support and variety measures of health related outcomes (Cohen & Wills, 1985; Elal & Krespi, 1999; Gençöz & Astan, 2006; Hegelsons & Cohen, 1996; Northouse et al., 1999; Wortman & Dunkel-Schetter, 1987).

Methodological features of the present study may at least partly explain why the finding was not significant. The MSPSS used for the study was designed to measure only perceived social support from family, friends and significant others (Zimet, Dahlen, Zimet, & Forley, 1988). Thus, in the present study, only one aspect of social support, not support in general was examined. Furthermore, the influence of other social support systems was not measured. However, different aspects of social support are described, for example, the main hypothesis about social support advanced by Cohen and Wills (Cohen, & Willis, 1985) is the ‘main effects’ vs. the ‘stress buffering’ hypothesis. The main effects hypothesis states that the more social support an individual has, the better the quality of life, regardless of the person’s level of stress. The relation between quality of life and social support is linear. The stress-buffering hypothesis, however, states that the relation of social support to quality of life depends upon an individual’s level of stress. If there is no stress or little stress, social support is unrelated to quality of life. Under conditions of high stress, however, social support serves as a buffer against the adverse effects of that stressor. Helgeson (2003) also distinguished between structural and functional measures of support and stated “Structural measures of the environment deal with the mere existence of social relationships. Structural measures describe the existence, the interconnections, and the relations among network members. I refer to these measures as quantitative measures of support because they usually reflect an amount of people or the amount of contact an individual has in his or her social environment. Some examples of structural measures are marital status, how many friends a person has, frequency of interaction with friends, and the number of personal roles an individual has, such as student, worker, parent, etc. Functional measures are typically what people think of when considering social support. Functional measures refer to the resources that people within an individual's social network provide. Functional measures are qualitative measures". Moreover, support functions were also categorized into sub categories by Helgeson (2003): "Most taxonomies consist of these three basic functions: emotional support, instrumental support and informational support. Emotional support refers to having people available to listen, to care, to sympathize, to provide reassurance, and to make one feel valued, loved and cared for. Instrumental support, sometimes referred to as tangible assistance, involves people providing concrete assistance, such as help with household chores, lending money, or running errands. Informational support involves the provision of information or guidance". In a supporting way, Elal and Krespi (1999) argued that differences in measurement techniques and instruments used might result in some of the discrepancies in the results of different studies. Gençöz and Astan (2006) also argued that the reason for inconsistent conclusions observed in literature might be, studying global concept of social support, without further narrowing its definition. As a result of considering different aspects of social support, there is a need for further studies, addressing the questions of which of these aspects of the social environment has the strongest implication for QOL of haemodialysis patients, with an instrument including different aspects of social support.

5.5 Hypothesis of the Study

The main aim of the present study was to examine the relations between resources and quality of life (QOL) and psychological well-being, as well as to examine in the mediational role of self-efficacy, in haemodialysis patients within the Conservation of Resources (COR) model.

Specifically, the present study examined the following hypothesis and it was found that:

Hypothesis 1: Demographic variables of age will relate to the lower level of well-being, was supported, because age was a predictor of well being and increase in age related to lower well-being. Age will relate to the lower level of QOL was partly supported. Such that, age was a predictor of physical health component and overall QOL scores and increase in age related to lower physical health component and overall QOL scores, whereas, age was not a predictor of mental health component of QOL score.

Hypothesis 2: Socioeconomic variables such as, of level of education, family income, housing tenure, car ownership and employment status will relate to well-being and QOL such that higher levels of education, higher family income, house and car ownership and employment will relate to higher well being and QOL, was not supported. Family income, housing tenure, car ownership was not predictors of the well-being and QOL measures. Education was a predictor of mental health component of QOL score, but contrary to previous expectation, in the current study higher education level related to lower physical health component of QOL.

Hypothesis 3: As illness characteristics, duration of kidney disease and haemodialysis treatment, and knowledge about illness will relate positively to well-being and QOL, duration of hospitalizations in the previous year, and presence of additional diagnoses will relate negatively to well being and QOL, was partly supported. Duration of kidney disease, haemodialysis treatment, and hospitalizations in the previous year and knowledge about illness were not predictors of well-being and QOL. Presence of additional diagnosis was a predictor of all three scores of QOL (physical, mental and overall) and increase in the presence of additional diagnosis related to lower levels of all three scores of QOL.

Hypothesis 4: Perceived Criticism/Hostility(C/H) component of expressed emotion will relate negatively to well-being and QOL, was partly supported. C/H was a predictor of well-being, such that increase in C/H related to lower well-being, whereas, C/H was not a predictor of the QOL scores.

Hypothesis 5: Optimism will relate positively to well-being and QOL, was not supported. Optimism was a predictor of neither well-being nor QOL measures.

Hypothesis 6: Self esteem will relate positively to well-being and QOL, was partly supported. Self esteem was a predictor of well-being and overall QOL scores, such that, higher self esteem related to higher well-being and overall QOL, whereas, self esteem was not a predictor of physical and mental health component of QOL.

Hypothesis 7: Perceived social support will relate positively to well-being and QOL, was not supported. Optimism was a predictor of neither well-being nor QOL measures.

Hypothesis 8: Coping self- will relate positively to well-being and QOL, was supported. Coping self-efficacy was a predictor of well-being and all three scores of QOL (physical, mental and overall) and higher coping self-efficacy related to higher well-being and QOL.

Hypothesis 9: Demographic and socioeconomic variables, illness characteristics, perceived C/H, optimism, self esteem, and perceived social support will relate to well being and QOL and coping self-efficacy mediates this relationship, was partly supported. Coping self-efficacy had a mediator effect for two variables. First, duration of haemodialysis treatment was mediated by the coping self-efficacy for the well-being. Second, coping self-efficacy carries the influence of the family income to the overall score of QOL.

5.6 Limitations of the study

There are some limitations of this study that needs to be addressed. The self-report nature of the study is a limitation of the study as in most investigations of well being and QOL studies and creates methodological limitations. The results, therefore, may be subject to self-report bias. Obtaining biochemical validation is desirable in terms of accuracy of measurement of illness related distress and patients' actual state of well-being and quality of life (QOL). Moreover, well-being and QOL need to be assessed by other report, such as the clinicians'.

Another potential criticism of this study is that the results are limited by the fact that they are based on a cross-sectional analyses of haemodialysis patients. In addition, living with a chronic disease should not be viewed as a stable condition, as it includes both periods of alarm and calmness with regard to disease activity, our cross-sectional design limits the possibility of making causal connections. Therefore, these results need to be tested in a series of longitudinal analyses that follow individuals through the illness so that the patterns of the well being, QOL, personal characteristics and other demographic and illness related variables can be assessed as people progress through the illness over time.

The results are also limited by the fact that the sample consisted of haemodialysis patients, and this limits the generalizability of the results to the other chronic illnesses. With regard to the nature of the sample, although the sample of the study was similar with the other studies' sample of haemodialysis patients, low level of education of the participants is another potential weakness of the study. Thus the results need to be considered cautiously.

5.7 Clinical Implications of the study and Directions for Future Research

It is important to assess the perceived levels of well-being and quality of life (QOL) when considering what kind of treatment options are suitable to be offered to patients with chronic diseases such as haemodialysis. However, there are many factors that can influence the patients' perceptions such as demographic and medical variables, besides the psychological variables, the burden of symptoms, family related issues, and individual characteristics. The results of the study provided valuable insights into the ways in which the well-being and QOL of haemodialysis patients can be improved. The study investigated the risks and protective factors identified by both the medical and psychological variables outlined by the Conservation of Resources (COR) model (Hobfoll, 1989, 2001). The present results offer additional support for the applicability of the COR model to the health setting with a chronic illness and effect of various variables on well-being and QOL of haemodialysis patients. These measures and model can be applied to a diversity of groups with sensitivity to special needs and perspectives of each group. Measures may need to be translated appropriately and adjusted to the needs of each group and individuals will need to be treated in sensitive ways.

In the literature illness specific instruments for dialysis patients were also used in addition to generic measures, like Short Form-36 Health Survey (SF-36) (Carmichael et al., 2000). In a similar way in this study, in addition to the assessment of those factors that contribute to QOL as measured by SF-36, psychological well-being was measured with the Well Being Questionnaire-12 (WBQ-12). In the literature, instead of a specific measurement of well being, scales developed to evaluate the level of anxiety and depressive symptoms were used and lack of depressive or anxiety symptomatology were accepted to reflect well-being. For example, the Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983) was used as a measure of psychological well being (Kuijer & De Ridder, 2003; Lee, Lee, Ng, Hung, Au, & Wong, 2002). In another study subjective well-being was based on a concept of ‘‘happiness’’, which was defined as a preponderance of positive affect over negative affect (Gonzalez Gutierrez, Moreno Jimenez, Garrosa Hernandez, & Penacoba Puente, 2005). Thus, as an outcome variable besides the other measure, using a well being measure specific to end stage renal disease is seen one of the strengths of the current study. Moreover, greater use of this questionnaire in Turkey might facilitate better comparative studies between different haemodialysis populations.

Our data we believe important, because they are collected from a sample of haemodialysis patients and as an exploratory study, as a result, the present findings suggest the importance of taking into account a person’s subjective well-being and perception of QOL. Thus, as a clinical implication, well-being and QOL in patients with haemodialysis patients provided important information regarding the nature and extent of the burden associated with this disorder and may be useful in the development of strategies to deal with it. QOL, as obtained by using the Short Form-36 Health Survey represented an independent marker of health status in haemodialysis patients and should be considered, together with common clinical outcome measures, when monitoring patients. Furthermore, self-rated health questionnaires are a useful tool for evaluating the need for and the effects of medical treatment in a haemodialysis unit. QOL indices of patients can be used in medical practice to estimate the impact of different treatments on QOL and well-being and to compare outcomes between different treatment modalities.

A serious disease may have a direct impact on a person's health status thereby constraining her/his physical and psychological health and life expectancy, but people may differ in terms of their subjective wellness, relatively independent of their objective conditions. Patients' concerns about various aspects of symptoms of haemodialysis, perceived coping self-efficacy, self-esteem, and criticism-hostility (C/H) were found to be predictive of their well-being and perception of QOL. An illness specific scale was developed to measure symptom distress and perceived coping self-efficacy related to these problems of haemodialysis patients for this study. This scale can be to identify specific problems and coping self-efficacy level about haemodialysis. This information can be used in tailoring psychological support programs for these patients. Our findings therefore contribute to a patient-centered care of haemodialysis patients which can alert clinicians to specific common stressors and self-efficacy that are likely to influence well being, and QOL. Although such symptoms are relatively common in the haemodialysis population, a systematic approach to minimizing them may prove beneficial for improving well-being and QOL. The role of psychological counseling in haemodialysis patients with an emphasis on helping the individual enhance their coping self efficacy with their disease and lifestyle consequences might improve well being and QOL, by improving coping self efficacy. Cognitive-behavioral modifications and education may produce valuable effects increasing coping self-efficacy so that patients can manage symptom distress in order to control symptoms and reduce the impact of disease on their well-being and QOL. However, intervention trials are necessary to establish the causal nature of the association between the well-being and QOL and self-efficacy and progress through the illness. Additionally, including other variables, such as, depression, may be useful to understand relationship between self-efficacy and outcome variables, because of high incidence rate of depression in the haemodialysis patients (Elal, & Krespi, 1999; Akman et al., 2004). Moreover the present findings of the symptom distress and coping self-efficacy could have implications for the development of content, and type of interventions suitable for haemodialysis patients.

Results of the study showed that perceived C/H is a predictor of well being and this result provided support to a growing literature that indicates that perceived C/H is an important risk factor for poor treatment response across many disorders. Because this variable is assessed with the Perceived Expressed Emotion Scale and provided support for the reliability and validity of the measures, it could be easily included in the initial assessments of clients to guide intervention efforts, family counseling which aims to reduce C/H can be developed and applied. However, further research is needed to assess the characteristics of both patients and relatives that contributes to higher levels of perceived C/H and reveal the causal relationships between expressed emotion and psychological morbidity factors, and their impact on well being and QOL in haemodialysis patients. This may enable an effective psychosocial intervention approach to be developed. In conclusion, the present study supported the applicability of the Symptom Distress Scale, Coping Self Efficacy Scale and Perceived Expressed Emotion Scale in haemodialysis patients.

Self-esteem was a predictor of both well-being and QOL. This result underlined the relevance of self-esteem as a target for well-intentioned interventions. Health interventions in heamodialysis patients could be supplemented with self-esteem component to enhance health outcomes. Interestingly, however, the relationship between social support and optimism and outcome variables was not observed in the present study. There was a possibility that variables may be associated positively with each other yet have different effects. This suggests that further studies are needed to a better understand the relationships between social support and optimism and the outcome variables. It might also yield useful insights in identifying the beneficial effects of social support and optimism if different components of optimism and social support were included in the research with a longitudinal design. However, overall the results of the present study pointed out the importance of age, self-esteem and coping-self-efficacy and perception of C/H from caregiver. These all support the importance of offering psychological support program for haemodialysis patients.

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APPENDICES

APPENDIX A

The Pilot Study's Socioeconomic, Demographic and Illness Characteristics Information Form

Bu araştırmanın amacı, böbrek hastalığı olan hastaların, hastalığın yarattığı güçlükler ve yakınlarıyla ilgili algıları hakkında bazı durumları incelemektir. Bu anket sonucunda elde edilen bilgilerin böbrek hastalığı olan kişilerin çeşitli problemlerinin çözümünde yardımcı olacağı düşünülmektedir. Araştırmaya katılmak tamamen gönüllüdür. Yardımlarınız için şimdiden teşekkürler.

1.Yaşınız ________________

2.Cinsiyetiniz
☐Kadın ☐Erkek

3.Eğitim durumunuzu belirtiniz.

☐İlkokul ☐Lise ☐Üniversite

☐Ortaokul ☐Yüksekokul ☐Yüksek lisans ☐ Okur yazar değil

4. Medeni durumunuzu belirtiniz.

☐Evli ☐Bekar ☐Nişanlı ☐Dul ☐Boşanmış

5.Çocuğunuz var mı?
☐Evet (evet ise: Kaç çocuğunuz var ?______En küçüğü kaç yaşında ? ____)

☐Hayır

6.Çalışıyor musunuz?

☐Evet (Yaptığınız işi yazınız____)

☐Hayır(sebebini belirtiniz-emeklilik, hastalık nedeniyle raporlu olmak vb___)

7.Aileniz anne baba ve çocuklardan mı oluşmaktadır?

☐Evet

☐Hayır(aile bireyleri kaç kişi ve kimlerdir_____________________________

8. Ailenizin yaklaşık aylık gelirini belirtiniz__________________________________

9.Tüm maddi kaynaklarınızı göz önünde bulunduruduğunuzda sizce aşağıdaki kategorilerden hangisi sizin için uygundur?

☐Çok fakir ☐Fakir ☐Orta düzey

☐Ortanın üstü ☐Zengin ☐Çok zengin

10.Eviniz;

☐Kira

☐Kendinize ait ☐Diğer (belirtiniz______________________)

11.Otomobiliniz var mı?

☐Evet ☐Hayır

12.Hastalığınızla ilgili size sürekli bakıp destek olacak kimse var mı?

☐Evet

☐Hayır

13.Sigara kullanıyor musunuz?

☐Evet (evetse kullandığınız süreyi belirtiniz________Günde ortalama kaç sigara içiyorsunuz_________)

☐Hayır

14.Böbrek hastalığınız ne zaman başladı, yıl olarak belirtiniz?__________________

15.Böbrek hastalığınızın olası sebebini belirtiniz?_____________________________

16. Hemodiyalize başlama tarihinizi belirtiniz_______________________________

17.Haftalık hemodiyalize girme sayınızı belirtiniz_____________________________

18.Günlük hemodiyaliz sürenizi saat olarak belirtiniz__________________________

19.Son bir yılda böbrek hastalığı sebebiyle hastanede yattınız mı?

☐ Evet (evetse sayısını __________ve toplam süresini belirtiniz_________)

☐ Hayır

20.Başka bir kronik hastalığınız var mı?

☐Var (varsa adını yazınız____)

☐Yok

21.Böbrek nakli yapıldı mı?

☐ Evet (evetse sayısını ve toplam süresini belirtiniz___________________)

☐ Hayır

22.Hastalığınızın sebebi ile ilgili bilgi düzeyiniz ne kadar?

1____1

Hiç yeterli değil Tamamen yeterli

23.Hastalığınızın tedavisi ile ilgili bilgi düzeyiniz ne kadar?

1____1

Hiç yeterli değil Tamamen yeterli

24.Hastalığınızın gidişatı ile ilgili bilgi düzeyiniz ne kadar?

1____1

Hiç yeterli değil Tamamen yeterli

25.Hastalıkla birlikte yaşamanın getirdiği fiziksel sıkıntılarla ne kadar iyi başa çıkabiliyorsunuz?

1____1

Hiç başa çıkamıyorum Tamamen başa çıkabiliyorum

26.Hastalıkla birlikte yaşamanın getirdiği ruhsal sıkıntılarla ne kadar iyi başa çıkabiliyorsunuz?

1____1

Hiç başa çıkamıyorum Tamamen başa çıkabiliyorum

27.Genel olarak hastalıkla birlikte yaşamanın getirdiği sıkıntılarla ne kadar iyi başa çıkabiliyorsunuz?

1____1

Hiç başa çıkamıyorum Tamamen başa çıkabiliyorum

APPENDIX B

The Symptom Distress Scale (SDS) and Coping Self Efficacy Scale (CSES)

Aşağıda yer alan sorularda, hastalıkla birlikte yaşamanın size ne gibi güçlükler getirdiği ve bu problemlerle ne kadar iyi başa çıkabildiğiniz araştırılmaktadır. Bu sorular sonunda elde edilen bilgilerin hastalıkla ilgili karşılaşılan çeşitli problemlerin çözümünde yardımcı olacağı düşünülmektedir.

Aşağıda hastalıkla ilgili bazı sorunlar sıralanmıştır. Şimdi aşağıda belirtilen bu sorunları son üç ay içerisinde yaşadıysanız lütfen ‘Evet yaşadım’ (1) diye yanıt verin; eğer bu sorunlu durumları son üç ay içerisinde hiç yaşamadıysanız ‘Hayır yaşamadım’ (2), seçeneğini seçin. Ayrıca size sorunlarla ne kadar iyi başa çıkabildiğiniz ile ilgili soruları da dikkatle okuyun. Belirtilen bu sorunları son üç ay içerisinde yaşadıysanız ‘Hiç başa çıkamıyorum’ (1), ‘Biraz başa çıkabiliyorum’ (2), veya ‘Tamamen başa çıkabiliyorum’ (3) seçeneklerinden size uygun olanına seçerek cevaplayın.

Son üç ayda bu sorunu yaşadınız mı?
1.Evet yaşadım
2.Biraz yaşadım
2.Hayır yaşamadım
Bu sorunla ne kadar iyi başa çıkabiliyorsunuz?
1.Hiç başa çıkamıyorum
2.Kararsızım
3.Tamamen başa çıkabiliyorum

	Son üç ayda bu sorunu yaşadınız mı?	Bu sorunla ne kadar iyi başa çıkabiliyorsunuz?
1.İştah azlığı ve yemek yiyememe	Evet Biraz yaşadım Hayır	1 2 3
2.Uykuya dalmada güçlük	Evet Biraz yaşadım Hayır	1 2 3
3.Hafızayla ilgili sorunlar	Evet Biraz yaşadım Hayır	1 2 3
4.Kendinizi ve dikkatinizi birşeye verememe	Evet Biraz yaşadım Hayır	1 2 3
5.İlaçlarınızı düzgün kullanamamak	Evet Biraz yaşadım Hayır	1 2 3
6.Arkadaşlar ve akrabalarla ilgilenememek	Evet Biraz yaşadım Hayır	1 2 3
7.Başağrısı ve diğer ağrılar	Evet Biraz yaşadım Hayır	1 2 3
8.Hareket etmede zorluk	Evet Biraz yaşadım Hayır	1 2 3
9.Kramplar	Evet Biraz yaşadım Hayır	1 2 3

10.Hastalıkla ilgili diyete uyamamak	Evet Biraz yaşadım Hayır	1 2 3
11.Aile bireylerine bağımlı olmak	Evet Biraz yaşadım Hayır	1 2 3
12.Hemodiyaliz makinasına bağımlı olmak	Evet Biraz yaşadım Hayır	1 2 3
13.Yorgunluk	Evet Biraz yaşadım Hayır	1 2 3
14.Uyuklama	Evet Biraz yaşadım Hayır	1 2 3
15.Mide bulantısı	Evet Biraz yaşadım Hayır	1 2 3
16.Kusma	Evet Biraz yaşadım Hayır	1 2 3
17.Fazla su içme	Evet Biraz yaşadım Hayır	1 2 3
18.Cinsel yaşamınızda sorunlar	Evet Biraz yaşadım Hayır	1 2 3
19.Kaşıntı	Evet Biraz yaşadım Hayır	1 2 3
20.İğne acısı korkusu	Evet Biraz yaşadım Hayır	1 2 3
21.Uzun saatler çalışamamak	Evet Biraz yaşadım Hayır	1 2 3
22.Fiziksel olarak yakışıklılık veya güzelliğin azalması	Evet Biraz yaşadım Hayır	1 2 3
23.Yeterince hareketli olamamak	Evet Biraz yaşadım Hayır	1 2 3
24.Aile içindeki sorumluluklarda değişme	Evet Biraz yaşadım Hayır	1 2 3
25.Diyaliz süresinin uzunluğu	Evet Biraz yaşadım Hayır	1 2 3
26.Maddi ihtiyaçları karşılamada zorluk	Evet Biraz yaşadım Hayır	1 2 3
27.Evle ilgili işleri yapamamak	Evet Biraz yaşadım Hayır	1 2 3
28.Aile bireylerinin ihtiyaçlarına yetişememek	Evet Biraz yaşadım Hayır	1 2 3
29.Aile bireyleriyle ilişkileri kontrol etmede güçlük	Evet Biraz yaşadım Hayır	1 2 3
30.Seyahat edememek veya eve bağımlı olmak	Evet Biraz yaşadım Hayır	1 2 3
31.Gelecekle ilgili belirsizlik	Evet Biraz yaşadım Hayır	1 2 3
32.Ölüm korkusu	Evet Biraz yaşadım Hayır	1 2 3
33.Diyaliz personeline bağımlı olmak	Evet Biraz yaşadım Hayır	1 2 3
34.İşinizin gereklerini yerine getirememek	Evet Biraz yaşadım Hayır	1 2 3
35.İş arkadaşlarıyla sorun yaşamak	Evet Biraz yaşadım Hayır	1 2 3

APPENDIX C

The Well Being Questionnaire -12 (WBQ-12)

Lütfen aşağıda sıralanan durumların, son birkaç hafta içinde, sizde ne sıklıkta görüldüğüne karşılık gelen rakamı yuvarlak içine alınız.

	Her zaman			Hiçbir zaman
1. Ağlama krizlerim var ya da ağlamaklı hissediyorum.	3	2	1	0
2. Kendimi moralsiz ve kederli hissediyorum.	3	2	1	0
3. Nedensiz bir korku hissim var.	3	2	1	0
4. Kolayca altüst oluyorum ya da paniğe kapılıyorum.	3	2	1	0
5. Kendimi enerjik, faal ya da dinç hissediyorum.	3	2	1	0
6. Sersem gibi ya da ağırlaşmış hissediyorum.	3	2	1	0
7. Yorgun, bitkin ya da tükenmiş hissediyorum.	3	2	1	0
8. Canlı ve dinlenmiş hissederek kalkıyorum.	3	2	1	0
9. Özel yaşantımda mutluyum, beni tatmin ediyor ya da hoşnutum.	3	2	1	0
10. İstediğim tarzda bir yaşam sürüyorum.	3	2	1	0
11. Günlük işlerimi halletmekte ya da yeni kararlar almakta kendimi istekli hissediyorum.	3	2	1	0
12. Yaşamımdaki herhangi bir ciddi sorunu ya da önemli bir değişikliği kolayca ele alabileceğimi ya da bununla kolayca başedebileceğimi hissediyorum.	3	2	1	0

Lütfen belirtilen 12 durumun hepsini incelediğinizden ve her birine karşılık gelen rakamı yuvarlak içine aldığınızdan emin olunuz.

APPENDIX D

The Perceived Expressed Emotion Scale (PEES)

Açıklama: Aşağıda sizin bakımınızla en çok ilgilenen aile ferdiyle aranızdaki ilişkinin bazı yönlerini tanımlayan cümleler vardır. Lütfen yakınınızı düşünerek cümleleri okuyun ve tanımlanan durumlar size uygunsa DOĞRUYU (D), uygun değilse YANLIŞI (Y) işaretleyin. Bunu yaparken son 3 ayınızı düşünün.

Hastalığınız ve bakımınızla en çok ilgilenen kişiyi belirtiniz ___________________________

1.Benim bazı şeyleri kasten yaptığımı düşünüyor ve öfkeleniyor	(D)	(Y)
2. Benim hasta olduğuma inanmıyor	(D)	(Y)
3. Benimle sohbet etmekten hoşlanıyor	(D)	(Y)
4. Onun için benim isteklerim diğer aile üyelerininkilerden daha önemlidir	(D)	(Y)
5. Benimle ilgili herşeyi, kendime özel konuları bile öğrenmeye çalışıyor	(D)	(Y)
6. Benim varlığım onu deli ediyor	(D)	(Y)
7. Ne hata yaptımda O böyle oldu diye düşünüp düşünüp yanıyor	(D)	(Y)
8. Benim bazı yönlerimi beğeniyor ve takdir ediyor	(D)	(Y)
9. Bana sık sık öğüt veriyor	(D)	(Y)
10. Benimle uyuşamıyor	(D)	(Y)
11. Beni 'Ne halin varsa gör' diye bıraktı artık	(D)	(Y)
12. Aile içinde benim herşeyimle o ilgileniyor	(D)	(Y)
13.Bana kırılıyor, güceniyor	(D)	(Y)
14.Benim fikirlerimi sonuna kadar dinler	(D)	(Y)
15. Benim üstüme titrer	(D)	(Y)
16. Benimleyken başka şeyle ilgilenemiyor, ilgisi hep benimle oluyor	(D)	(Y)
17. Benim onun hayatını yaşamasına engel olduğumu düşünüyor	(D)	(Y)
18. Ben hasta oldum diye dünya başına yıkılmış gibi geliyor	(D)	(Y)
19. Benim yaptığım işleri beğenmiyor	(D)	(Y)
20. Benim giyim kuşamımı beğenmiyor ve bunu bana söylüyor	(D)	(Y)
21. Benden onun beklediği gibi davranmamı istiyor	(D)	(Y)

22. Bana en ufak birşey olacak diye endişeleniyor	(D)	(Y)
23. Benim herşeyim ile o ilgileniyor	(D)	(Y)
24. Benden 'Ah bir kurtulsam' diye düşündüğü oluyor	(D)	(Y)
25. Huzursuz ve keyifsiz olduğumda anlıyor ve benden uzak duruyor	(D)	(Y)
26. Kendi işlerimi sıralı ve düzenli yapmam için beni sık sık ikaz ediyor	(D)	(Y)
27. Hastaneye yatmam onu perişan ediyor, benden ayrılamıyor	(D)	(Y)
28. Bizim birbirimize benzediğimizi düşünüyor	(D)	(Y)
29. Benim yanlışlarımı düzeltmemi istiyor	(D)	(Y)
30. Benimle iyi anlaşıyor	(D)	(Y)
31. Aklı fikri hep bende başka hiçbirşey düşünemiyor	(D)	(Y)
32. Kendimi düzeltmem için beni sık sık eleştiriyor	(D)	(Y)
33. Benden uzak kalmak istiyor	(D)	(Y)
34. Başına bir sürü dert açtığımı düşünüyor	(D)	(Y)
35. Ben olmasam bütün işlerin yoluna gireceğini düşünüyor	(D)	(Y)
36. Bir zorlukla karşılaşırsa başa çıkabileceğini düşünüyor	(D)	(Y)
37. Benim herşeyimle ilgilenmek ona zevk veriyor	(D)	(Y)
38. Öfkelendiğimde benden uzak durmaz, beni yatıştırmaya çalışır	(D)	(Y)
39. Huzursuz ve keyifsiz olduğumda benimle sohbet etmeye çalışır	(D)	(Y)
40. Benim hastalığımı abarttığımı düşünüyor	(D)	(Y)
41. Moralim bozuk olduğunda genellikle o destek oluyor	(D)	(Y)

APPENDIX E

The Main Study's Socioeconomic, Demographic and Illness Characteristics Information Form

Bu araştırmanın amacı, böbrek hastalığı olan hastaların, hastalığın yarattığı güçlükler ve yakınlarıyla ilgili algıları hakkında bazı durumları incelemektir. Bu anket sonucunda elde edilen bilgilerin böbrek hastalığı olan kişilerin çeşitli problemlerinin çözümünde yardımcı olacağı düşünülmektedir. Araştırmaya katılmak tamamen gönüllüdür. Yardımlarınız için şimdiden teşekkürler.

1.Yaşınızı belirtiniz ___________________

2.Cinsiyetiniz
☐ Kadın ☐ Erkek

3.Eğitim durumunuzu belirtiniz.
☐ Okur yazar değil ☐ İlkokul ☐ Ortaokul ☐ Lise ☐ Yüksekokul
☐ Üniversite

4. Medeni durumunuzu belirtiniz.
☐ Evli ☐ Bekar ☐ Nişanlı ☐ Dul ☐ Boşanmış

5.Çocuğunuz var mı?
☐ Evet
Cevabınız evet ise, Kaç çocuğunuz var? ________En küçüğü kaç yaşında ? _______
☐ Hayır

6.Çalışıyor musunuz?
☐ Evet
Cevabınız evet ise, Yaptığınız işi yazınız____
☐ Hayır
Cevabınız hayır ise, çalışmama sebebini belirtiniz-emeklilik, hastalık nedeniyle raporlu olmak, ev hanımı olmak vb ____

7. Hanenizde toplam kaç kişi yaşıyorsunuz ? _________________________________

8. Tüm kazançlarınız dahil, evinizin aylık ortalama geliri ne kadardır ?
☐ Çok düşük (400 YTL'den az) ☐ Düşük (400YTL-500YTL)
☐ Orta (500YTL-800YTL) ☐ Yüksek (800 YTL'den fazla)

9.Eviniz;
☐ Kira ☐ Kendinize ait ☐ Diğer
(belirtiniz__________________________)

10.Otomobiliniz var mı?
☐ Evet ☐ Hayır

11.Hastalığınızla ilgili size sürekli bakıp destek olacak kimse var mı?
☐ Evet ☐ Hayır
Cevabınız evet ise, yakınlığınızı yazınız-eş, anne, baba, kardeş, kız yada erkek çocuk gibi________________

12.Böbrek hastalığınız ne zaman başladı, yıl olarak belirtiniz?__________________

13.Ne kadar süredir diyalize giriyorsunuz? (Lütfen yıl ve ay olarak belirtiniz):
_______ yıl ________ay

14.Haftalık hemodiyalize girme sayınızı belirtiniz____________________________

15.Son bir yılda böbrek hastalığı sebebiyle hastanede yattınız mı?
☐ Evet
Cevabınız evet ise, sayısını _________ve toplam süresini gün olarak belirtiniz_____
☐ Hayır

16.Başka bir kronik hastalığınız var mı?
☐ Evet
Cevabınız evet ise, hastalığınızı belirtiniz_________________________________
☐ Hayır

17.Böbrek nakli yapıldı mı?
☐ Evet
Cevabınız evet ise, nakil sayısını__________ ve toplam süresini belirtiniz________________
☐ Hayır

18.Hastalığınızın sebebi ile ilgili bilgi düzeyiniz ne kadar?
0 1 2 3 4 5 6 7 8 9 10
Hiç yeterli değil Ne yeterli ne yetersiz Tamamen yeterli

19.Hastalığınızın tedavisi ile ilgili bilgi düzeyiniz ne kadar?
0 1 2 3 4 5 6 7 8 9 10
Hiç yeterli değil Ne yeterli ne yetersiz Tamamen yeterli

20.Hastalığınızın gidişatı ile ilgili bilgi düzeyiniz ne kadar?
0 1 2 3 4 5 6 7 8 9 10
Hiç yeterli değil Ne yeterli ne yetersiz Tamamen yeterli

APENDIX F

The Life Orientation Test (LOT)

Aşağıda bulunan her bir cümlenin altında ‘Kesinlikle katılmıyorum’, ‘Katılmıyorum’, ‘Kararsızım’, ‘Katılıyorum’, ‘Kesinlikle katılıyorum’ seçenekleri yer almaktadır. Her cümleyi dikkatle okuyunuz ve size uyan seçeneği çarpı (X) koyarak işaretleyiniz.

1.Ne olacağının önceden kestirilemediği durumlarda hep en iyi sonucu beklerim.
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

2. Kolayca gevşeyip rahatlayabilirim
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

3. Bir işimin ter gitme olasılığı varsa mutlaka ter gider
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

4. Herşeyi hep en iyi tarafından alırım
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

5. Geleceğim konusunda hep iyimserimdir
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

6. Arkadaşalrımla birlikte olmaktan hoşlanırım
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

7. Yapacak bir şeylerimin olması benim için önemlidir
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

8. İşlerin istediğim gibi yürüyeceğini neredeyse hiç beklemem
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

9.Hiçbirşey benim istediğim yönde gelişmez
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

10.Moralim öyle kolay kolay bozulmaz
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

11. Her kötü olayda bir iyi yan bulmaya çalışırım
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

12.Başıma iyi şeylerin geleceğine pek bel bağlamam
Kesinlikle katılmıyorum Katılmıyorum Kararsızım Katılıyorum Kesinlikle katılıyorum
( ) ( ) ( ) ( ) ( )

APPENDIX G

The Rosenberg Self-Esteem Scale (RSES)

Lütfen aşağıdaki 10 maddeyi size uygun olan seçeneği daire içine alarak değerlendiriniz.

1.Kendimi en az diğer insanlar kadar değerli buluyorum			
Tamamen katılıyorum	Katılıyorum	Katılmıyorum	Hiç katılmıyorum
1	2	3	4
2. Birçok olumlu özelliğimin olduğunu düşünüyorum			
Tamamen katılıyorum	Katılıyorum	Katılmıyorum	Hiç katılmıyorum
1	2	3	4
3. Genelde kendimi başarısız bir kişi olarak görme eğilimindeyim			
Tamamen katılıyorum	Katılıyorum	Katılmıyorum	Hiç katılmıyorum
1	2	3	4
4. Bende çoğu insan gibi işleri iyi yapabilirim			
Tamamen katılıyorum	Katılıyorum	Katılmıyorum	Hiç katılmıyorum
1	2	3	4
5. Kendimle gurur duyacak fazla birşey bulamıyorum			
Tamamen katılıyorum	Katılıyorum	Katılmıyorum	Hiç katılmıyorum
1	2	3	4
6. Kendime karşı olumlu bir tutum içindeyim			
Tamamen katılıyorum	Katılıyorum	Katılmıyorum	Hiç katılmıyorum
1	2	3	4
7. Genel olarak kendimden memnunum			
Tamamen katılıyorum	Katılıyorum	Katılmıyorum	Hiç katılmıyorum
1	2	3	4
8. Kendime karşı daha fazla saygı duyabilmeyi isterdim			
Tamamen katılıyorum	Katılıyorum	Katılmıyorum	Hiç katılmıyorum
1	2	3	4
9. Bazı zamanlar, kesinlikle bir işe yaramadığımı düşünüyorum			
Tamamen katılıyorum	Katılıyorum	Katılmıyorum	Hiç katılmıyorum
1	2	3	4
10. Bazı zamanlar, hiç yeterli biri olmadığımı düşünüyorum			
Tamamen katılıyorum	Katılıyorum	Katılmıyorum	Hiç katılmıyorum
1	2	3	4

APPNEDIX H

The Multidimensional Scale of Perceived Social Support (MSPSS)

Aşağıda 12 cümle ve her bir cümle altında da cevaplarınızı işaretlemeniz için 1'den 7'ye kadar rakamlar verilmiştir. Her cümlede söylenenin sizin için ne kadar doğru olduğunu veya olmadığını belirtmek için o cümle altındaki rakamlardan yalnız bir tanesini daire içine alarak işaretleyiniz. Bu şekilde 12 cümlenin her birine bir işaret koyarak cevaplarınızı veriniz. Lütfen hiçbir cümleyi cevapsız bırakmayınız. Sizce doğruya en yakın olan rakamı işaretleyiniz.

1. Ailem (örneğin, annem, babam, eşim, çocuklarım, kardeşlerim) bana gerçekten yardımcı olmaya çalışır
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

2. İhtiyacım olan duygusal yardımı ve desteği ailemden (örneğin, annemden, babamdan, eşimden, çocuklarımdan, kardeşlerimden) alırım
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

3. Arkadaşlarım bana gerçekten yardımcı olmaya çalışırlar
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

4. İşler kötü gittiğinde arkadaşlarıma güvenirim
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

5. Ailem ve arkadaşlarım dışında olan ve ihtiyacım olduğunda yanımda olan bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

6. Ailem ve arkadaşlarım dışında olan ve sevinç ve kederlerimi paylaşabileceğim bir insan(örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

7. Sorumlarımı ailemle (örneğin, annemle, babamla, eşimle, çocuklarımla, kardeşlerimle) konuşabilirim
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

8. Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

9. Ailem ve arkadaşlarım dışında olan ve duygularıma önem veren bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

10. Kararlarımı vermede ailem (örneğin, annem, babam, eşim, çocuklarım, kardeşlerim) bana yardımcı olmaya isteklidir
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

11. Ailem ve arkadaşlarım dışında olan ve beni gerçekten rahatlatan bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

12. Sorunlarımı arkadaşlarımla konuşabilirim
Kesinlikle hayır Kararsızım Kesinlikle evet
1 2 3 4 5 6 7

APPENDIX I

Short Form-36 Health Survey (SF-36)

YÖNERGE: Bu tarama formu size sağlığınızla ilgili görüşlerinizi sormaktadır. Bu bilgiler sizin nasıl hissettiğinizi ve herzamanki faaliyetlerinizi ne rahatlıkla yapabildiğinizi izlemekte yardımcı olacaktır.

Bütün soruları belirtildiği şekilde cevaplayın. Eğer bir soruyu ne şekilde cevaplayacağınızdan emin olmazsanız, lütfen en yakın cevabı işaretleyin.

1. Genel olarak sağlığınızı nasıl değerlendirirsiniz?

(birinin etrafına daire çizin)

Mükemmel	1
Çok iyi	2
İyi	3
Fena değil	4
Kötü	5

2. Geçen seneyle karşılaştırıldığında, ţimdi sağlığınızı nasıl değerlendirirsiniz?

(birinin etrafına daire çizin)

Bir yıl önceye göre çok daha iyi	1
Bir yıl önceye göre daha iyi	2
Hemen hemen aynı	3
Bir yıl önceye göre daha kötü	4
Biryıl önceye göre çok daha kötü	5

3. Aşağıdakiler normal olarak gün içerisinde yapıyor olabileceğiniz bazı faaliyetlerdir.

Şu sıralarda sağlığınız sizi bu faaliyetler bakımından kısıtlıyor mu? Kısıtlıyorsa ne kadar?

(Her satırda bir sayının etrafına daire çizin)

FAALİYETLER	**Evet, Oldukça Kısıtlıyor**	**Evet, Biraz Kısıtlıyor**	**Hayır, Hiç Kısıtlamıyor**
a. **Kuvvet gerektiren faaliyetler,** örneğin ağır eşyalar kaldırmak, futbol gibi sporlarla uğraşmak	1	2	3
b. **Orta zorlukta faaliyetler,** örneğin masa kaldırmak, süpürmek, yürüyüţ gibi hafif spor yapmak	1	2	3
c. Çarşı-pazar torbalarını taşımak	1	2	3
d. **Birkaç** kat merdiven çıkmak	1	2	3
e. **Bir** kat merdiven çıkmak	1	2	3
f. Eğilmek, diz çökmek, yerden birşey almak	1	2	3
g. **Bir kilometre'den fazla** yürümek	1	2	3
h. **Birkaçyüz metre** yürümek	1	2	3
ı. **Yüz metre** yürümek	1	2	3
j. Yıkanmak ya da giyinmek	1	2	3

4. Geçtiğimiz bir ay (4 hafta) içerisinde işinizde veya diğer günlük faaliyetlerinizde bedensel sağlığınız nedeniyle aşağıdaki sorunların herhangi biriyle karşılaştınız mı?

(Her satırda bir sayının etrafına daire çizin)

	EVET	**HAYIR**
a. İş ya da iş dışı uğraşlarınıza **verdiğiniz zamanı** kısmak zorunda kalmak	1	2
b. Yapmak istediğinizden **daha azını** yapabilmek (bitmeyen projeler, temizlenmeyen ev gibi...)	1	2
c. Yapabildiğiniz iş türünde ya da diğer faailyetlerde kısıtlanmak	1	2
d. İş ya da diğer uğraşları yapmakta zorlanmak	1	2

5. Geçtiğimiz bir ay (4 hafta) içerisinde işinizde veya diğer günlük faaliyetlerinizde duygusal problemleriniz nedeniyle (üzüntülü ya da kaygılı olmak gibi) aşağıdaki sorunların herhangi biriyle karşılaştınız mı?

(Her satırda bir sayının etrafına daire çizin)

	EVET	**HAYIR**
a. İş ya da iş dışı uğraşlarınıza **verdiğiniz zamanı** kısmak zorunda kalmak.	1	2
b. Yapmak istediğinizden **daha azını** yapabilmek (bitmeyen projeler, temizlenmeyen ev gibi...)	1	2
c. İş ya da diğer uğraşları her zaman gibi dikkatlice yapamamak	1	2

6. Son bir ay (4 hafta) içerisinde bedensel sağlığınız ya da duygusal problemleriniz, aileniz, arkadaşlarınız, komşularınızla ya da diğer gruplarla normal olarak yaptığınız sosyal faaliyetlere ne ölçüde engel oldu ?

(birinin etrafına daire çizin)

hiç..1
biraz...2
orta derecede...3
epeyce...4
çok fazla..5

7. Geçtiğimiz bir ay (4 hafta) içerisinde ne kadar bedensel ağrılarınız oldu?

(birinin etrafına daire çizin)

hiç..1
çok hafif...2
hafif..3
orta hafiflikte..4
aşırı derecede..5
çok aşırı derecede...6

8. Son bir ay (4 hafta) içerisinde, ağrı normal işinize (ev dışında ve ev işi) ne kadar engel oldu?

(birinin etrafına daire çizin)

hiç olmadı	1
biraz	2
orta derecede	3
epey	4
çok fazla	5

9. Aşağıdaki sorular geçtiğimiz bir ay (4 hafta) içerisinde kendinizi nasıl hissettiğinizle ve işlerin sizin için nasıl gittiğiyle ilgilidir. Lütfen, her soru için nasıl hissettiğinize en yakın olan cevabı verin. Geçtiğimiz 4 hafta içindeki sürenin ne kadarı-

(Her satırda bir sayının etrafına daire çizin)

	Her Zaman	**Çoğu Zaman**	**Epeyce**	**Arada Sırada**	**Çok Ender**	**Hiçbir Zaman**
a. Kendinizi hayat dolu hissettiniz?	1	2	3	4	5	6
b. Çok sinirli bir kiți oldunuz?	1	2	3	4	5	6
c. Hiçbirțeyin sizi neşelendiremiyeceği kadar moraliniz bozuk ve kötü oldu?	1	2	3	4	5	6
d. Sakin ve huzurlu hissettiniz?	1	2	3	4	5	6
e. Çok enerjiniz oldu?	1	2	3	4	5	6
f. Mutsuz ve kederli oldunuz?	1	2	3	4	5	6
g. Kendinizi bitkin hissettiniz?	1	2	3	4	5	6
h. Mutlu ve sevinçli oldunuz?	1	2	3	4	5	6
ı. Yorgun hissettiniz?	1	2	3	4	5	6

10. Geçtiğimiz bir ay (4 hafta) içerisinde, bu sürenin ne kadarında bedensel sağlığınız ya da duygusal problemleriniz, sosyal faaliyetlerinize (arkadaş, akraba ziyareti gibi) engel oldu?

(birinin etrafına daire çizin)

Her zaman..1

Çoğu zaman..2

Bazen..3

Çok ender...4

Hiçbir zaman...5

11. Aşağıdaki herbir ifade sizin için ne kadar DOĞRU ya da YANLIŞ?

(her satırda bir sayının etrafına daire çizin)

	Kesinlikle Doğru	**Çoğunluk la Doğru**	**Bilmiyorum**	**Çok kere Yanlış**	**Kesinlikle Yanlış**
a. Başkalarından biraz daha kolay hastalandığımı düşünüyorum	1	2	3	4	5
b. Ben de tanıdığım her kes kadar sağlıklıyım	1	2	3	4	5
c. Sağlığımın kötü gide ceğini sanıyorum	1	2	3	4	5
d. Sağlığım mükemmeldir	1	2	3	4	5

KATILIMINIZ İÇİN TEŞEKKÜR EDERİZ

APPENDIX J

TURKISH SUMMARY

HEMODİYALİZ HASTALARININ YAŞAM KALİTELERİ VE DIŞA VURAN DUYGULARLA VE PSİKOSOSYAL DEĞİŞKENLERLE İLİŞKİSİ: KAYNAKLARIN KORUNMASI MODELİ ÇERÇEVESİNDE BİR DEĞERLENDİRME

GİRİŞ

Bu çalışmanın amacı hemodiyaliz hastalarının yaşam kalitesi ve psikolojik iyilik halleri ile, dışa vuran duygu durumunun iki faktörü (eleştirici/düşmanca tutum ve duygusal aşırı bağlanma faktörü) ve diğer psikososyal değişkenler arasındaki ilişkiyi, Kaynakların Korunumu Modeli çerçevesinde araştırmaktır.

Son dönem böbrek yetmezliği ve tedavisi

Böbrek fonksiyonunun kronik olarak kaybına genellikle, glomerülonefrit, kronik hipertansiyon ve ailevi polikistik böbrek hastalığı gibi pek çok faktör sebep olabilir (Petrie, 1997). Böbrek fonksiyonundaki düşüş, vücudun atık maddelerinin gittikçe artarak vücutta birikmesine sebep olur. Kandaki üre ve kreatinin seviyesindeki artış bu durumun göstergesidir. Böbrek yetmezliğine eşlik eden metabolik bozulma genellikle yorgunluk ve uyku hali, yemek yiyememenin yanı sıra bulantı ve kusma gibi pek çok fiziksel semptomlara neden olur (Petrie, 1997).

Böbrek yetmezliğinin oluşturduğu olumsuz durumun üç temel tedavisi vardır (Symister & Friend, 1996). Hemodiyaliz tedavisinde hastanın kanı, yapay bir böbrek makinasından geçer, ki bu makina vücuttaki atık maddeleri kanı yarı geçirgen bir zardan geçirerek süzer. Hemodiyalize giren hastaların çoğu haftada üç kez ve dört ile altı saat arasında diyalize girmek zorundadırlar. Bu tedavi, hastanın kendi tarafından bağımsız olarak evinde yada iş yerinde, ki ev diyalizi olarak adlandırılır, yada hastanenin hemodiyaliz ünitesine gelerek yapılabilir (Symister & Friend, 1996). Periton diyalizi diğer tedavi stratejisidir. Periton diyalizide hamodiyalizin çalıştığı aynı genel prensibe göre çalışır ancak, tüm işlem vücudun içinde gerçekleşir. Periton diyalizi, hastanın cerrahi olarak abdomen boşluğuna yerleştirilen tüpler yoluyla makinaya bağlıyken, diyaliz solüsyonunun gece boyunca abdominal boşluğa dolmasını içerir. Bu şekilde periton diyalizi hasta uykudayken olur. Diyaliz sıvısı 4-6 saat sonra boşaltılır ve tüm işlem günde üç dört defa olmak üzere her gün tekrarlanır. Son olarak, kadavradan yada yaşayan bir akrabadan böbrek taransplantasyonu, böbrek yetmezliği hastaları için öteki tedavi seçeneğidir (Symister & Friend, 1996).

Hemodiyalizin etkileri

Böbrek hastalığının içerdiği zorluklar, böbrek yetmezliğinin fizyolojik sonuçları, sürekli devam eden diyalizden kaynaklanan kısıtlamalar ve kronik bir hastalığa psikolojik olarak adaptasyon sürecini gerektirmesidir (Petrie, 1997). Son dönem böbrek yetmezliğinin en önemli olumsuz etkilerinden biri uyku hali ve yorgunluktur. Bu durum sadece günlük işlevleri değil aynı zamanda aile ilişkilerini de etkiler, çünkü böbrek yetmezliği olan hasta daha önceden hoşlandığı sosyal aktiviteler için gereken enerjiden yoksundur (Petrie, 1997). Sexüel aktivitede azalma, kaşıntı, ve uyku problemleri de son dönem böbrek hastalığında oldukça yaygındır.

Diyaliz tedavi süreci aynı zamanda iyilik halini tehdit eden zorluklar da yaratır. Bu problemlerin arasında en yaygın olanları, diyet ve sıvı kısıtlamaları, iğne acısı korkusunun gelişmesi, ve periyodik enfeksiyonlara sebebiyet verebilen diyaliz tekniğiyle ilgili sorunlardır (Petrie, 1997). Hastaların durumlarıyla ve süregiden hemodiyaliz tedavisiyle ilgili hayal kırıklıkları, sık olarak, tedaviye uyum, diyet ve sıvı kıstlamalarıyla ilgili problemlerle kendini göstermektedir. Hemodiyalize giren hastaların rejime uymamaları majör bir problemdir, çünkü rejimin özellikleri sebebiyle uyum azalmaktadır. Tedavi kompleks, uzun vadeli ve hastanın yaşam tarzı üzerine direk etkilere sahiptir. Uyumsuzluk hemodiyaliz personeli ve hasta arasında da sorunlara da sebep olabilir.

Yukarda verilen fizyolojik ve psikolojik sorunların kombinasyonu göz önüne alınınca, hemodiyaliz hasta gruplarında böbrek nakli yapılan hastalar ve genel popülasyonla karşılaştırılınca, yüksek oranlarda psikolojik problemlere rastlanması ve iyilik halinin azalması sürpriz değildir (Simmons, Anderson, & Kamstra, 1984). Depresyon semptomlarının, böbrek hastalığının somatik semptamatolojisiyle örtüşmesi sebebiyle, diyaliz hastalarındaki depresyonu ölçmedeki güçlüklere rağmen, tutarlı bir biçimde diyaliz hastalarında yüksek oranlarda depresyon bulunmaktadır (Levenson &Glocheski, 1991).

Long (1989) son dönem böbrek hastalığında depresyon ve seksüel problemler sebebiyle ankisiyete, depresyon ve uyum sorunlarını en sık görülen psikolojik sorunlar olarak sıraladıktan sonra, "Bu problemler anlaşılabilirdir: kronik hastalığı olan hasta kendisi için 'normal' olanın artık 'normal' olmadığını anlamaktadır. Kendisi artık sağlıklı, bağımsız, aktif, ve fiziksel olarak başkalarına karşı çekici olmayabilir, uzun saatler çalışamayabilir ve seksüel olarak yeterli olmayabilir" demektedir. Ayrıca kronik yetmezliğin psikolojik sonuçlarının, aile ve evlilik sorunlarına, finansal sorunlara ve iş yerinde ve sosyal ortamlarda ağır rol kayıplarına sebep olabileceği de belirtilmiştir(Long, 1989).

Çalışmanın teoretik çerçevesi: Kaynakların Korunumu Teorisi

Kaynakların korunumu teorisinin (COR) temel prensibi, kişinin kaynaklarını kazanmak, korumak ve inşa etmek için çaba gösterdiği ve değerli olan kaynakların kaybedilme olasılığının, yada kaybetmenin kişiye tehdit oluşturduğudur(Hobfoll, 1989). Model psikolojik stresi, çevreye karşı bir reaksiyon olarak görmektedir, şöyleki (a) kaynağın kesin kaybına sebep olabilecek bir tehdit, (b) kaynağın kesin kaybı, yada (c) kaynakların yatırım yapılmasına takiben kaynak kazanamama. Algılanan yada gerçek kayıp, yada kazanımın olmaması stresin ortaya çıkması için yeterli görülmektedir. Kaynaklar, stresin anlaşılması için gerekli tek bir birim olarak görülmektedir ve kişi tarafından değer verilen maddi kaynaklar, kişisel karakteristikler, durumlar ve enerji kaynakları olarak, yada tüm bu kaynaklara ulaşmak için hizmet eden araçlar olarak tanımlanmaktadır

Model; kaybı strese, kazancı olumlu duruma sebep olan(mesela iyilik hali), dört çeşit kaynak tanımlamaktadır. İlk olarak maddi kaynaklar, fiziksel doğaları, ikincil statü kazandırmaları yada ender sahip olunmaları ve maliyetleri sebebiyle değer verilir. Ev, mülk ve sosyoekonomik statü kazandıran diğer nesneler maddi kaynaklara örnek olarak verilebilir. Durumlar, değer verildikleri ve ulaşmak için uğraşıldıkları oranda ikinci kaynak grubu olarak tanımlanırlar. Evlilik, kıdem ve rütbe bu tür kaynaklara örnek olarak verilmektedir. Ayrıca hangi durumun hangi kişiler yada gruplar tarafından ne kadar değer verildiğinin ölçülmesi, o kişi yada grupların stres dayanıklılığı potansiyelinin anlaşılmasına olanak tanıyabileceği belirtilmektedir. Kişisel karekteristikler stres dayanıklılığına yardımcı oldukları ölçüde, üçüncü grup kaynak olarak tanımlanmaktadırlar. Kişisel özellikler ve yetenekler bu tür kaynak olarak sınıflandırılmaktadırlar ve pek çoğunun stres dayanıklılığına yardım ettiği belirtilmektedir. Enerji son kaynak kategorisidir ve zaman, para ve bilgi gibi kaynakları içerir. Sosyal destek bu kategorilerin hiç birine girmemektedir ve daha çok, sosyal ilişkiler, değer verilen kaynakların korunmasına hizmet ettikleri oranda kaynak olarak görülmektedirler.

Model kaynağın hem objektif hem de subjektif bileşeni olduğunu vurgulamaktadır. Kişisel özelliklerin, mesela dayanıklılık, kontrol odağı, kişisel içgörü, iyimserlik, kronik patolojik bir hastalığın olmaması, düşük olumsuz duygudurum, ve sosyal desteğin, farklı türden kayıpları etkileyen kaynaklar olarak araştırılabileceği belirtilmektedir. Bugüne kadar Kaynakların Korunumu modeli(Hobfoll, 1989), iş-aile (Grandey & Cropanzano, 1999; Rosenbaum, & Cohen, 1999), iş yerindeki duygusal tükenme araştırmalarına (Ito & Brotheridge, 2003), doğal afetlerin erken dönem aşamalarına(O’Neill, Evans, Bussman, & Strandberg, 1999), ve AIDS önleme programlarına uygulanmıştır(MacKenzie, Hobfoll, Ennis, Kay, Jackson, & Lavin, 1999).

Özet olarak, Hobfoll’un (1989) COR modeli hastalık-sağlık literatürünün kavranması için teoretik bir çerçeve sunmaktadır ve bu çalışmanın teoretik temeli olarak kullanılacaktır(Figür 1’e bakınız, modele dayanarak hazırlanmıştır). COR modeli seçilmiştir çünkü, ilk olarak, kaynaklar ve geniş bir ranjdaki çıktılar arasındaki ilişkiler hakkında spesifik hipotezler oluşturulmasına olanak tanımaktadır. İkinci olarak, COR modeli, hastalık-sağlıkla ilgili değişkenlerde, kişisel karakterlerin aracılık etkileri, hakkında yordama yapılmasına olanak tanımaktadır. Son olarak ta, COR modeli yaşamda değişikliklere sebep olan olayların etkilerinin, stres düzeyine etkisini araştırılmasına olanak tanımaktadır.

Bu çalışma, yaşam kalitesi ve iyilik haline katkıda bulunduğu düşünülen, dört kaynak çeşidini içermektedir. Maddi kaynaklar bu çalışmadaki ilk kaynak kategorisidir ve eğitim düzeyi, ev ve otomobil sahibi olma ve çalışıyor olma gibi sosyodemografik değişkenler maddi kaynak olarak ele alınacaktır. Durumlar, kaynak olarak, yaş, cinsiyet, medeni durum ve hastalık karekteristiklerini içermektedir. Medikal özellikler, böbrek fonksiyon kaybının olası sebebi, böbrek hastalığının ve hemodiyaliz tedavisinin süresi, hemodiyaliz tedavisinin sıklığı ve kaç saat sürdüğü, bir önceki yılda son dönem böbrek hastalığı sebebiyle hastaneye yatış sayı ve süresi, başka kronik hastalığın varlığı da çalışmaya dahil edilecektir. COR modeli kişisel karakteristikle ilgili değişkenleri de bileşen olarak içerir. COR’a göre bireysel farklılıklar kaynak olarak görülebilir (Hobfoll, 1989). Öteki alanlardaki kaynakları da etkiledikleri için, algılanan dışa vuran duygular, ve hastanın algılanan sosyal desteği sosyal kaynak olarak göz önüne alınacaktır. İyimserlik, benlik saygısı ve başetme öz yeterliliği de kişisel karakteristik kaynakları adı altında ele alınacaktır.

Sosyal kaynaklar

Dışa vuran duygular

Dışa vuran duygular, akrabaların hasta kişiye karşı tutum, davranış ve duygularının ölçülmesidir. Bir aile üyesinin, ailenin başka bir üyesiyle eleştirel veya düşmanca yada duygusal aşırı bağlanmayı işaret eder tarzda konuştuğunun ölçülmesi olarak tanımlanmaktadır (Barrowclough & Hooley, 2003). Ailenin duygusal atmosferinin önemi, özellikle eleştirici tutum, şizofreni araştırmalarının sonucunda, yeterince medikal ilaç tedavisi alan hastaların, hastaneden çıktıktan sonraki relapslarını açıklamak amacıyla, Brown ve Rutter (1966) tarafından, İngiltere'de, "dışavuran duygular" kavramını geliştirmiştir.

Dışa vuran duygular, eleştirici tutum(eleştirel yorum), düşmanca tutum, duygusal aşırı bağlanma, pozitif imalar ve sıcaklık boyutlarını içeren çok boyutlu bir kavram olarak tanımlanmaktadır(Barrowclough & Hooley, 2003; Kavanagh, 1992; Wearden, Tarrier, Barrowclough, Zastowny, & Rahill, 2000).

Dışa vuran duyguların şizofreni(King, 2000; Os, Marcelis, Germeys, Graven, & Delespaul, 2001), yeme bozuklukları ve duygudurum bozuklukları(Butzlaff and Hooley, 1998; Wearden, Tarrier, Barrowclough, Zastowny, & Rahill, 2000) da dahil pek çok hastalıkta iyi bir yordayıcı olduğu gösterilmiştir. Ayrıca yüksek dışa vuran duyguların relapsa sebep olması kavramı sadece şizofreni ve aile ortamına özgüde değildir. Tip 1 diyabet hastaları ve partnerleriyle ayrı ayrı görüşülerek, yüksek dışa vuran duygular ve diyabete uyum ve glükoz düzeyi arasındaki ilişkiyi araştıran çalışmada(Wearden, Tarrier, &Davies, 2000), ve astımı olan çocukların anne babalarının dışa vuran duygu durum düzeyiyle astım semptomlarının başlaması ve medikal tedaviye uyum arasındaki ilişkiyi araştıran araştırmada(Gartland & Day, 1999) da benzer sonuçlar elde edilmiştir.

Hemodiyaliz tedavisi göre son dönem böbrek yetmezliği hastaları konusunda dışa vuran duyguların ele alınmasının iki sebebi vardır. İlk sebebi, dışa vuran duyguların hemodiyaliz hastaları üzerindeki yordayıcı gücü konusunda sonuçlara varılmasını sağlayacak bir araştırma sonucu bulunmaması, ikinci olarakta, hemodiyaliz hastalarında depresyon görülme sıklığının yüksek olmasıdır (Elal, & Krespi, 1999).

Dışa vuran duygularla ilgili literatürde, çoğunlukla hastaya bakım veren kişilerin dışa vuran duyguları araştırılırken, dışa vuran duyguların ölçülmesine yönelik farklı bir yaklaşım olan, hastaya akrabasının davranışlarıyla ilgili olarak algıladığı dışa vuran duyguların sorulması, yeterince araştırılmamıştır. Bu çalışmada hemodiyaliz hastalarının bakımlarıyla ilgilenen aile fertlerine yönelik algıladıkları dışa vuran duygular, kaynak olarak göz önüne alınacaktır. Benzer olarak Hooley ve Teasdale(1989), Algılanan Eleştirel tutum Ölçeğini, depresif hastaların eşleriyle ilgili olarak algıladıkları dışa vuran duyguları ölçmek amacıyla geliştirmişlerdir. Genel dışa vuran duygular ölçümleriyle, Algılanan Eleştirel tutum Ölçeği arasında istatistiksel olarak anlamlı bir korelasyon bulunmuştur. Ayrıca, dokuz ay sonra, bu ölçekten yüksek puan alan hastaların daha fazla relaps oldukları ve bu ölçeğin yordama gücünün, Camberwell Aile Ölçeğinden daha güçlü olduğu bildirilmiştir.

Sonuç olarak, depresyonun sosyal çevreden büyük ölçüde etkilendiği rapor edilmektedir(Brown & Harris, 1978), ki bu sebeple aile ortamının bir ifadesi olan dışa vuran duygular göz ardı edilemez. Sonuç olarak, dışa vuran duygularla ilgili çalışmaların sonucuna dayalı olarak oluşturulan tedavilerin olumlu etkileri sadece hemodiyaliz hastasına değil ailesine ve topluma da faydalı olacaktır.

Sosyal destek

Algılanan sosyal destek bu çalışmada sosyal kaynaklar altında yer alacak ikinci değişkendir. Sosyal destek, diğer kişilerden, mesela, arkadaşlardan, komşulardan, iş arkadaşlarından, mesleki uzmanlardan ve iletişimde bulunulan kişilerden alınan destek yada yardımdır (DiMattew, & Martin, 2002). Sosyal destek kronik hastalıklara uyumda da önemli bir rol oynar. Literatür sosyal desteğin medikal hastalıklarla ilgili deneyimi, süreci, sonucu ve hastalığa yönelik psikolojik reaksiyonuda etkilediğini göstermektedir. Ayrıca duygusal destek tutarlı bir biçimde daha iyi yaşam kalitesiyle ilişkilendirilmektedir (Hegelsons & Cohen, 1996).

Elal ve Krespi (1999) çalışmalarında, sosyal desteğin, yani algılanan sosyal destek miktarının, ulaşılabilirliğinin ve tatmin olma düzeyinin, hemodiyaliz hastalarında depresyonla negatif korelasyon gösterdiğini bulmuşlardır. Gençöz ve Astan (2006) da içsel kontrol odağı olan hemodiyaliz hastalarında, düşük düzey algılanan sosyal desteğe ulaşılabilirlik, despresyonla ilişki gösterirken, dışsal kontrol odağı olan hemodiyaliz hastarında düşük düzey algılanan sosyal destekten tatmin, depresyonla ilişki göstermiştir.

Sonuç olarak, sosyal destek düzeyiyle hemodiyaliz hastalarının yaşam kalitesinin düzeyi arasındaki ilişkinin daha iyi anlaşılması, hastaların ve hastalıkla ilgili daha iyi prognozun anlaşılmasına katkıda bulunabileceği düşünülmektedir.

Kişisel karakteristik kaynaklar

İyimserlik

Bu çalışmada ele alınacak kişisel karakteristiklerden biri iyimserliktir. İyimserlik kişinin karakteristik özelliklerinden biridir ve hemodiyaliz tedavisi gören hastaları bu tedavinin potansiyel olumsuz etkilerine karşı, koruyucu faktör olabileceği düşünülmektedir. Updegraff ve Taylor (2000), araştırma sonuçlarının, karakter özelliği olarak iyimserliğin, kişinin stresli yaşam olaylarıyla nasıl başedeceğini ve kişinin uzun dönem uyumunu da etkileyebileceğini gösterdiğini belirtmişlerdir. Scheier ve Carver (1985), umulan değer teorilerinde (Expectancy Value Theory) kişilerin zor yada olumsuz yaşam olaylarıyla başetme çabalarını, başarılı olacaklarını umdukları oranda sürdürdüklerini öne sürmüşlerdir. Bir başka deyişle, iyimser yada kendileri ve gelecek için olumlu beklentileri olan kişilerin, olumsuz yada zor olaylarla yüzleşme çabalarını, kendileri yada gelecekle ilgili olumsuz beklentileri olanlardan daha fazla sürdürmeleri olasıdır. Bu durumla uyumlu bir biçimde, iyimserliğin kişilerin yaşamlarına etkileri, koroner arter baypas ameliyatı sonrası araştırılmış ve iyimserlerin kötümserlerden ameliyata verilen tepki açısından daha iyi durumda oldukları bulunmuştur(Scheier, Matthews, Owens, Magovern, Lefebvre, Abbott, & Carver, 1989). Ayrıca aynı çalışmada, iyimserlik hastanede yatış süresince, daha hızlı fiziksel iyileşmeyle ve hastaneden çıktıktan sonra normal günlük aktivitelere daha hızlı dönüşle ilişki göstermiştir.

Benlik saygısı

Benlik saygısı bu çalışmada diğer bir kişisel kaynak olarak ele alınacaktır. Benlik saygısı benlik kavramının bir elementi olarak tanımlanmaktadır ve genellikle benliğin kabulü yada kişinin kendilik değerini pozitif genel duygusal değerlendirmesidir. Fiziksel ve psikolojik sağlıkla ilişkisi bulunmuştur (Benyamini, Leventhal, & Leventhal, 2004; Glendinning, 1998; Makikangas, Kinnunen, & Feldt, 2004; Schroevers, Ranchor, & Sanderman, 2003). Ayrıca benlik saygısı, kronik hastalıklardaki düşük depresyon belirtileriyle ilişkilendirilmiştir, mesela, kanser (Bisschop, Kriegsman, Beekman, & Deeg, 2004; Schroevers, Ranchor, & Sanderman, 2003) ve artirit (Nagyova, Stewart, Macejova, van Dijk, & van den Heuvel, 2005) gibi.

Benlik saygısının kronik hastalığın sorunlarıyla yüzleşen kişiler için önemli bir kaynak olduğu, ve bu önemli kaynağın potansiyel etkilerinin kronik hastalık tarafından oluşturulan spesifik sınırlılıklara bağlı olduğu hipotezi oluşturulabilir. Diğer bir deyişle bu kaynağın rolü kronik hastalığa göre ve hastalığa özgü özelliklere göre değişebilir. Bu sebeple, bu çalışma benlik saygısını hemodiyaliz hastalarının kişisel karakteristik kaynağı olarak ele alacaktır.

Öz yeterlilik

Algılanan öz yeterlilik, kişinin gelecekteki durumlarla başedebilmek için yapılacak hareketleri organize etme ve yapabilme kapasitesine dair inancıdır(Bandura, 1997a).

Bandura (1992), öz yeterliliğin, sağlığı iyileştirici davranışların, önemli bir belirleyicisi olarak iş gördüğünü, ve kişisel öz yeterlilik hissinin insan sağlığında etkili rol oynadığı iki düzey olduğunu belirtmiştir. Bandura'ya göre(1992), daha temel düzeyde, kişilerin yaşamlarındaki stresle başedebilme kapasitelerine olan inancı, hastalık ve sağlığa aracılık eden, stresten kaynaklanan immun sistem baskılanması ve fizyolojik değisiklikler mesela, kan basıncında ve kalp atışında değişiklikler, ve stres hormonlarının salgılanması gibi, biyolojik sistemi harekete geçirmektedir. İkinci düzey, sağlığın değiştirilebilir davranış yönüne ve yaşlanma oranına yönelik direk kontrolün sağlanmasının denenmesini göz önüne almaktadır.

Bandura'ya göre(1997a), ikinci düzeydeki öz yeterlilik insan sağlığını, yaşam tarzı alışkanlıklarını etkileyerek, canlılıkları ve yaşam kalitelerini etkileyen bazı davranış kontrollerinin sağlanması için çaba sarfetmelerini sağlayarak, düzeltir yada kötüleştirir. Kişilerin, kendilerini motive edebileceklerine ve kendi davranışlarını düzenleyebileceklerine yönelik inançlarının sağlığa zararlı alışkanlıklarını değiştirmeyi sadece düşünmeleri için bile çok önemli bir rol oynadığı iddia edilmektedir. Pek çok çalışma kendilerine inanan kişilerin sağlık davranışına gelindiğinde öz yeterlilikleri düşük olan kişilere göre daha başarılı olduklarını bulmuştur. Yüksek düzeydeki öz yeterlilik hastalığın daha iyi idare edilmesi ile ilişkilidir, mesela, reçete edilen ilacın kullanılması, stresle başetme, ve tavsiye dilen diyete uyma (Clark & Dodge, 1999) ve algılanan öz yeterliliğin kanser hastalarının yaşam kaliteleri ile pozitif ilişkili olduğu rapor edilmiştir (Turk & Feldman, 1992).

Bu görüşler doğrultusunda bu çalışmada, başetme öz yeterliliği kişisel bir kaynak olarak ele alınacaktır. Bu çalışma hemodiyalizle ilgili kayıp ve kazancın hastalıkla ilgili başetme öz yeterliliğini etkileyeceğini ve yüksek başetme öz yeterliliği olan hastaların hemodiyalizin potansiyel stresleri ile başetmek için daha etkin çaba sarfedeceğini ve onlarla daha iyi başedebileceğini ileri sürmektedir(Bandura, 1997a). Ancak hemodiyalizin potansiyel stresleriyle başedemeyeceklerine inanırlarsa, sıkıntı duyabilirler ve yaşam kalite düzeyleri kötüleşebilir. Bu çalışma hemodiyalizle ilgili başetme öz yeterliliğini, potansiyel hemodiyaliz stresleriyle etkin bir biçimde başetmek için inanç olarak tanımlanmıştır.

Yaşam kalitesi

Dünya Sağlık Örgütü yaşam kalitesini ‘kişinin fiziksel sağlığından, psikolojik durumundan, bağımsızlık düzeyinden, sosyal ilişkilerinden ve çevresindeki göze çarpan özelliklerden etkilenen geniş ölçüde değisen bir kavram’ olarak tanımlamıştır (WHOQOL Group, 1993). Ancak yaşam kalitesinin tanımında ortak bir karar olmamasına rağmen, baskın kavramsallaştırma yaşam kalitesini hasta tarafından algılanan farklı boyutları içeren çok boyutlu bir yapı olarak görmektedir(Kuijer & De Ridder, 2003). Aynışekilde, sağlık bataryası oluşturmak için çalışan araştırmacılar yaşam kalitesini sekiz alan olarak kavramsallaştırmışlardır, bu alanlar, ‘fiziksel işlevsellik, sosyal işlevsellik, fiziksel problemlerden dolayı rol sınırlılıkları, duygusal problemlerden kaynaklanan rol sınırlılıkları, akıl sağlığı, enerji/canlılık, bedensel ağrı ve genel sağlık algısı’, olarak isimlendirilmişlerdir ve ölçeklerinin sekiz temel boyutunu oluşturmuştur (Stewart & Ware, 1992).

Yaşam kalitesi ölçümleri değişik amaçlarla kullanılmaktadır. Mesela farklı tedavi müdahalelerin kişinin yaşam kalitesi üzerine etkisini ölçmek için tekrar ölçüm dizaynları ile sonuç ölçümü olarak kullanmışlardır. Kadınların göğüs küçültme ameliyatları denemelerinde kadınların ameliyat öncesi ve sonrası yaşam kaliteleri karşılaştırılmıştır(Klassen, Fitzpatrick, Jenkinson, & Goodacre, 1996). Sonuç kadınların hem ameliyat öncesi hemde ameliyat sonrası yaşam kalitelerini genel popülasyondaki kadınlara göre daha düşük rapor ettiklerini göstermiştir.

Yaşam kalitesi, hastalığa özgü kontrollü randomize çalışmalarda sonuç değişkeni olarak da yer almıştır. Göğüs kanseri olan kadınların takip muayenelerinin hastane yada ilk basamak sağlık merkezinde yapılmasının göreceli etkileri incelenmiştir(Grunfeld, Mant, Yudkin, Adewuyi-Dalton, Cole, Stewart, Fitzpatrick, & Vessey, 1996). Sonuç, genel pratisyen bakımında yaşam kalitesi üzerinde herhangi bir düşüşün olmadığını göstermiştir.

Diğer çalışmalarda yaşam kalitesininin yordayıcılarının araştırılması için yaşam kalitesi değişkenini, son nokta yada sonuç değişkeni olarak kullanmışlardır. Mesela, bir çalışmada elli yedi yaşında ve daha yaşlı, ve değişik kronik hastalıkları olan hastalar ve sağlıklı denekler genel yaşam kalitesine katkısının açıklanması için fiziksel, sosyal ve psikolojik işlevselliklerini karşılaştırılmışlardır (Arnold, Ranchor, Sanderman, Kempen, Ormel, & Suurmeijer, 2004). Pek çok hasta grubu ve sağlıklı denekler arasında fiziksel ve ruhsal işlevsellik açısından farklılıklar bulunmuştur. Akciğer ve kalp hastaları, sırt problemi, romatoid artiriti ve migreni olan hastalar sağlıklı deneklerden fiziksel işlevsellik açısından daha düşük puan almışlardır. Ayrıca, akciğer hastalığı ve migreni olan hastalar ruhsal sağlık açısından kontrol grubundand daha düşük puan almışlardır.

Bu çalışmada yaşam kalitesi değişkeni sonuç değişkeni olarak ele alınacaktır ve yordayıcıları Kaynakalrın Korunumu Modeli çerçevesinde araştırılacaktır.

Araştırmanın amacı ve hipotezleri

Bu çalışmanın amacı kaynaklar ve başetme öz yeterliliği ve sonuç değişkenleri arasındaki ilişkileri araştırmak ve başetme öz yeterliliği değişkeninin kaynaklar ve sonuç değişkenleri arasındaki ilişkilerde aracılık rolünün çok değişkenli faktör modeli ile test edilmesidir.

Bu çalışmanın 4 temel hipotezi vardır:

Hipotez 1. Yaş yaşam kalitesini olumsuz etkiler, ancak, eğitim düzeyi, ailenin aylık geliri, ev ve otomobil sahibi olmak ve çalışıyor olmak yaşam kalitesini olumlu etkiler.

Hipotez 2. Böbrek hastalığının ve hemodiyalizin süresi, ve hastalık hakkında bilgi sahibi olmak yaşam kalitesini olumlu etkiler, ancak, hastanede yatış süresi, başka bir kronik hastalık yaşam kalitesini olumsuz etkiler.

Hipotez 3. Algılanan dışa vuran duygu durumunun algılanan eleştirici/düşmanca tutum faktörü yaşam kalitesini olumsuz etkiler, ancak, iyimserlik, benlik saygısı, algılanan sosyal destek, ve algılanan başetme öz yeterliliği yaşam kalitesini olumlu etkiler.

Hipotez 4. Demografik ve sosyoekonimik değişkenler, hastalıkla ilgili karakteristikler, algılanan eleştirici/düşmanca tutum, iyimserlik, benlik saygısı, ve algılanan sosyal destek, yaşam kalitesini etkiler ve başetme öz yeterliliği bu ilişkilere aracılık eder.

YÖNTEM

Çalışmaya S.B. Etlik İhtisas Hastanesi Hemodiyaliz ünitesinden, 106 hemodiyaliz hastası katılmıştır. Tablo 6, hastalarla ilgili sosyodemografik ve hastalıkla ilgili bilgileri içermektedir.

Ana çalışmadan önce, Semptom Sıkıntı Ölçeğinin (SDS), Başa çıkma Özyeterlilik Ölçeğinin (CSES) ve Algılanan Dışavuran Duygu Ölçeğinin (PEES) psikometrik özelliklerini değerlendirmek amacıyla, nefroloji poliklinik ve kiliniklerine başvuran 53 hemodiyaliz hastasının katıldığı, bir pilot çalışma gerçekleştirilmiştir. Ruhsal Esenlik Anketi-12(WBQ-12) bu amaçla kullanılmıştır. Pilot çalışmada aşağıdaki ölçüm araçları kullanılmıştır.

Sosyodemografik bilgi formunda yaş, cinsiyet, eğitim düzeyi, medeni hal, ailedeki kişi sayısı, ailenin geliri, ev ve otomobil sahibi olmak, çalışıyor olmak, çocuk sahibi olunup olmadığı ve eğer varsa, çocuk sayısı ve en genç çocuğun yaşı, hastalıkta bakım verecek kimsenin olup olmadığı ve eğer varsa hasta ile akrabalığı soruldu. Sigara içme statüsü, süresi, günlük miktarı ile ilgili sorular da soruldu. Hastalığın fiziksel, ruhsal ve genel yüküyle başetme öz yeterliliği görsel analog skalasıyla ölçüldü (Pilot çalışmada kullanılan sosyodemografik bilgi formu Ek A da sunulmuştur). Ancak ana çalışmada sigara ilgili sorular diğer değişkenlerle, görsel analog skalasıyla ölçülen başetme öz yeterliliği ile ilgili sorular da CSES ile düşük korelasyon gösterdiği için çıkartıldı. Diğer sorularda da katılımcıların anlamakta güçlük çektiği soruların daha kolay anlaşılır olması için soruların formatında, görünüşünde yada kelimelerinde değişiklikler yapıldı(Ana çalışmada kullanılan sosyodemografik bilgi formu Ek E de sunulmuştur).

Klinik ve diyalizle ilgili bilgilerde katılımcıların gözlem formlarından elde edildi. Medikal özellikler, böbrek hastalığının süresi (yıl olarak), böbrek yetmezliğinin olası sebebi, hemodiyaliz tedavisinin süresi(ay olarak), haftalık hemodiyaliz tedavisinin sıklığı, ve diyaliz seansının süresini, böbrek yetmezliği ile ilgili önceki yılda hastaneye yatış olup olmadığı, olduysa süresi, böbrek yetmezliği haricinde ikinci bir kronik hastalık olup olmadığı, varsa isimleri soruldu. Hastalığın sebebi, tedavisi ve prognozu ile ilgili bilgi düzeyi 0 ile 10 arasında değişen görsel analog skalasıyla ölçüldü. Ayrıca, böbrek nakli yapılıp yapılmadığı, yapıldıysa sayısı ve rejeksiyon süresi soruldu (Pilot çalışmada kullanılan hastalıkla ilgili karakteristik bilgi formu Ek A da sunulmuştur). Ana çalışmada böbrek yetemezliğinin olası sebebiyle ilgili soru yeterince bilgi sahibi olunmadığı için ve hemodiyaliz seansının süresi konusunda cevaplar daki aynılık nedeniyle de, bu konudaki soru çıkartıldı. Hastalıkla ilgili bilgi konusundaki üç soru da daha kolay anlaşılır olmaları için, görsel analog skalası yerine, 0(hiç bilgi sahibi olmamak) ile 10(tamamiyle bilgi sahibi olmak) arasındaki ölçekte belirtmeleri istendi(Ana çalışmada kullanılan hastalıkla ilgili karakteristik bilgi formu Ek E de sunulmuştur).

Semptom Sıkıntı Ölçeği (SDS), hemodiyaliz tedavisi gören hastaların biyolojik/somatik(kramplar, bulantı, kusma, yorgunluk) ve psikolojik/psikososyal(ölüm korkusu, sağlık personeline bağımlı olma, gelecekle ilgili belirsizlik) kaynaklı sorunlarla ilgili sıkıntılarını değerlendirmek amacıyla bu çalışmada kullanılmak üzere geliştirildi. 35 olası farklı sorun listesini içermektedir. Hastalara her madde için, bu sorunu son üç ayda yaşayıp yaşamadıkları sorulmuştur. Cevap şekli, pilot çalışma için ikili cevap(hayır, evet) alternatifi, ana çalışma içinse cevaplardaki değişkenliği artırmak için 3-lü skala ile ölçülmüştür(1=hiç yaşamadım, 3=çok fazla yaşadım). Bu ölçekteki yüksek puan, hemodiyalizle ilgili daha fazla sıkıntıyı ifade etmektedir(Çalışmada kullanılan SDS, Ek B de sunulmuştur).

Başa çıkma Özyeterlilik Ölçeği (CSES), hastaların hemodiyalizle ilgili sıkıntılara yönelik başetme öz yeterliliğini ölçmek üzere bu çalışma için geliştirilmiştir. CSES başa çıkma öz yeterliliğini, SDS ölçeğinin maddeleri ile ölçmektedir. Katılımcıların, her bir potansiyel sorunla ilgili algıladıkları başetme öz yeterliliklerine yönelik düşünceleri(Bandura, 1997a), 3-lü skala ile ölçülmüştür(1, hiç başedemiyorum; 3 tamamıyla başediyorum) (Çalışmada kullanılan CSES, Ek B de sunulmuştur).

Ruhsal Esenlik Anketi-12 (WBQ-12) 12 madde içermektedir ve kronik hastalığı olan hastaların genel ruhsal sağlıklarını ölçmek için geliştirilmiştir (Pouwer, Snoek, Van Der Plaeg, Ader, & Heine, 2000). Ölçek son dönem böbrek yetmezliği olan hastalar için Türkçeye uyarlanmıştır ve cevap alternatifi 0(0; hiç bir zaman) ile 3 (3; her zaman) arasında değişen 4-lü skaladır (Sağduyu, Şentürk, Aydın, & Özel, 2003). Ölçekten alınan yüksek puan daha iyi psikolojik iyilik halini ifade etmektedir.

Hastaların Algılanan Dışavuran Duygu Ölçeği (PEES) Berksun'un (1992) Dışavuran Duygu Ölçeği(EES) ile ölçülmüştür. Ölçek orijinal olarak hastaların bakımlarıyla ilgilenen hasta yakınlarının kişilerarası ilişkilerdeki dışavuran duygularını ölçmek için geliştirilmiştir. EES 41 madde içermektedir ve cevap alternatifi evet(evet; katılıyorum) ve hayır(hayır; katılmıyorum) şeklindedir.

Pilot çalışmanın sonuçları Tablo 1, 2, 3, 4 ve 5 de verilmiştir. Sonuç olarak pilot çalışmanın sonucu SDS, CSES ve PEES ölçeklerinin geçerlilik ve güvenilirliklerininin ana çalışmada uygulanabilmesi için, destek sağladığı düşünülmektedir. Ana çalışmada, yukardaki ölçeklere ek olarak aşağıdaki ölçekler kullanılmıştır.

Yaşam Yönelimi Testi (LOT), kişilik özelliği olarak iyimserliği ölçer ve 4'ü filtre maddesi olmak üzere 12 maddeden oluşmaktadır(Scheier, & Carver, 1985). Aydın ve Tezer (1991) ölçeği Türkçeye uyarlamışlardır ve cevap alternatifi 0(0; kesinlikle katılmıyorum) ile 4 (4; kesinlikle katılıyorum) arasında değişen 5-li skaladır. Ölçekten alınan yüksek puan daha yüksek derecede iyimserliği ifade etmektedir.

On maddelik Rosenberg Benlik Saygısı Ölçeği (RSES) (1965) katılımcıların benlik saygısını ölçmek amacıyla kullanılmıştır. Bu ölçekten alınan yüksek puan kişinin öz saygısını ve kendini değerli bulduğunu gösterirken, düşük benlik saygısı, kendini reddetmeyi ve memnun olunmadığını göstermektedir. Çuhadaroğlu (1986) ölçeği Türkçeye uyarlamıştır ve cevap alternatifi 1(1; tamamen katılmıyorum) ile 4 (4; tamamen katılıyorum) arasında değişen 4-lü skaladır.

Çok Boyutlu Algılanan Sosyal Destek Ölçeği (MSPSS), aile, arkadaşlar ve önemli kişilerden, algılanan sosyal desteğin ölçülmesi amacıyla geliştirilmiştir(Zimet, Dahlen, Zimet, & Forley, 1988). Ölçek 12 maddeden oluşmuştur ve cevap alternatifi 1(1; kesinlikle hayır) ile 7 (7; kesinlikle evet) arasında değişen 7-li skaladır. Ölçekten alınan yüksek puan, algılanan sosyal desteğin yüksek olduğunu göstermektedir ve ölçeğin Türkçeye uyarlaması Eker ve Arkar (1995) tarafından yapılmıştır.

Kısa Form-36 Sağlık Anketi(SF-36), jenerik subjektif sağlık durumunu ölçmek amacıyla geliştirilmiştir (Ware, Snow, Kosinski, & Gandek, 1993). Madde sayısı 36'dır ve 8 boyutu vardır. Cevap alternatifleri 2 (evet veya hayır), 3, 5 ve 6'lı kategori olmak üzere pek çok değişik formatı içermektedir. Ölçek, her bir alt ölçek için, 0 ile 100 arasında değişen toplam puan vermektedir ve 100 puan iyi sağlık durumunu gösterirken, 0 kötü sağlık durumunu göstermektedir. Ölçeğin Türkçe uyarlaması osteoartiriti ve bel ağrısı olan 100 hasta için, Koçyiğit, Aydemir, Fişek, Ölmez, ve Memiş (1999) tarafından yapılmıştır.

BULGULAR

Semptom Sıkıntı Ölçeği (SDS) ölçeğine uygulanan faktör analizi sonucu tek faktör elde edilmiş, madde sayısı 29 olmuştur. Ölçeğin üç maddesi (hemodiyaliz makinasına bağımlı olma, fazla su içme ve iğne acısı korkusu) daha sonraki analizlerden çıkartılmıştır. Tek faktör toplam varyansın % 20.98'ini açıklamıştır. Ölçeğin iç tutarlılığı hesaplandığında Cronbach Alpha katsayısı .86 olarak hesaplanmıştır. Ölçek çalışmanın diğer değişkenleriyle beklenen yönde korelasyonlar göstermiştir. Faktör yapısı ve korelasyonlarla ilgili sonuçlar Tablo 7 ve 8' de verilmiştir.

Başa çıkma Özyeterlilik Ölçeği'nin (CSES) güvenilirlik katsayısı (Cronbach Alpha) .88 olrak bulunmuştur. Çalışmanın diğer değişkenleri ölçek ile beklenen yönde korelasyon göstermişlerdir. Korelasyon sonuçları Tablo 9'da verilmiştir.

Algılanan Dışavuran Duygu Ölçeği'ne (PEES) uygulanan faktör analizi sonucu iki faktör elde edilmiştir. Faktörler ölçeğin orijinalinde olduğu gibi eleştirici/düşmanca tutum ve duygusal aşırı bağlanma alt ölçekleri olarak isimlendirilmişlerdir. Ölçeğin faktör yapısı ve Cronbach Alpha değerleri, Tablo 10' da, çalışmadaki diğer değişkenlerle olan korelasyonları da Tablo 11'de verilmiştir.

Kısa Form-36 Sağlık Anketi'nin (SF-36) alt ölçeklerinin ve bileşik puanlarının madde sayıları ve Cronbach Alpha değerleri, Tablo 11' de, çalışmadaki değişkenlerin ortalamaları, standart sapmaları ve ranjları Tablo 12'de, çalışmanın değişkenlerinin birbirleriyle olan korelasyon katsayılarını Tablo 13'de verilmiştir.

Çalışmadaki değişkenlerle ilgili 5 bileşik puan hesaplandıktan sonra, araştırmanın temel hipotezlerini test etmek için regresyon analizleri kullanılmıştır. Her bir regresyon analizi için, ilk olarak sosyo demografik değişkenler(yaş, eğitim, çocuk sahibi olma, aylık gelir, ev ve otomobil sahibi olma), daha sonra hastalıkla ilgili karakteristikler(böbrek hastalığının ve hemodiyalizin süresi, bir önceki yılda hastanede yatış, ikinci bir kronik hastalığın varlığı, ve hastalık hakkında bilgi düzeyi) üçüncü olarak kişisel karakteristik kaynaklar(iyimserlik, benlik saygısı, algılanan sosyal destek, dışa vuran duygu durumunun aşırı bağlanma ve eleştirici/düşmanca tutum alt ölçekleri) ve son olarak da başa çıkma özyeterlilik değişkenleri regresyon analizine, giriş(enter) prosedürüyle girmişlerdir. Bağımlı değişkenler psikolojik iyilik durumu, yaşam kalitesi ölçeğinin fiziksel ve ruhsal sağlık bileşeni ve yaşam kalitesi ölçeğinin ortalamasıdır. Regresyon analizinin sonuçları Tablo, 15, 16, 17, 18' de verilmiştir.

Bulgular, psikolojik iyilik durumunu, yaş, benlik saygısı, dışa vuran duygu durumunun eleştirici/düşmanca tutum faktörü ve başa çıkma özyeterliliği değişkenlerinin; yaşam kalitesi ölçeğinin fiziksel sağlık bileşeni ise, yaş, eğitim, ikinci bir kronik hastalığın varlığı, ve başa çıkma özyeterliliği değişkenlerinin yordadığını göstermiştir. Ayrıca, yaşam kalitesinin ruhsal sağlık bileşenini, ikinci bir kronik hastalığın varlığı, ve başa çıkma özyeterliliği değişkenleri; yaşam kalitesi ölçeğinin ortalamasını ise, yaş, ikinci bir kronik hastalığın varlığı, benlik saygısı, ve başa çıkma özyeterliliği değişkenleri yordamıştır. Bağımlı değişkenler, yaş, eğitim, ikinci bir kronik hastalığın varlığı, dışa vuran duygu durumunun eleştirici/düşmanca tutum faktörü tarafından negatif etkilenirken, benlik saygısı ve başa çıkma özyeterliliği tarafından pozitif etkilenmişlerdir.

Başa çıkma özyeterliliği değişkeninin kaynaklar ve yaşam kalitesi ve psikolojik iyilik hali değişkenleri arasındaki ilişkideki aracılık rolüde de araştırılmıştır. Sonuçlar Figür 2 ve 3'de verilmiştir. Başa çıkma özyeterliliği değişkeninin aracılık etkisi iki değişken için bulunmuştur. İlk olarak, hemodiyaliz tedavisi süresinin, psikolojik iyilik üzerine etkisine, başa çıkma özyeterliliği aracılık etmiştir. İkinci olarak, başa çıkma özyeterliliği, ailenin gelirinin etkisini, yaşam kalitesi ölçeğinin ortalaması değişkeni üzerine taşımıştır.

TARTIŞMA

Bu çalışmada ilk defa, Kaynakların Korunumu modeli (Hobfoll, 1989), yeterli sayıdaki hemodiyaliz hasta popülasyonuna uygulanmış ve çalışmanın sonucu daha önceki çalışma sonuçlarını ve modelin temel presensiplerini desteklemiştir. Sosyodemografik ve hastalıkla ilgili değişkenlerin yanısıra, ilk defa olarak, iyimserlik, benlik saygısı, algılanan sosyal destek, dışa vuran duygu durumunun aşırı bağlanma ve eleştirici/düşmanca tutum alt ölçekleri ve başa çıkma özyeterlilik değişkenleri kaynak olarak ele alınmış ve sonuç değişkenleri üzerindeki etkileri, böbrek yetmezliğine uyum ve hemodiyaliz tedavisinin farklı yaşamsal alanlara etkisini anlamak amacıyla incelenmiştir.

Model, yaş, eğitim düzeyi, başka bir kronik hastalık, benlik saygısı, algılanan eleştirici/düşmanca tutum ve başetme öz yeterliliği değişkenlerinin, psikolojik iyilik ve yaşam kalitesi değişkenlerini, istatistiksel anlamlı olarak yordadıklarını göstermiştir.

Araştırmanın, yaş yaşam kalitesini olumsuz etkiler, ancak, eğitim düzeyi, ailenin aylık geliri, ev ve otomobil sahibi olmak ve çalışıyor olmak yaşam kalitesini olumlu etkiler, hipotezi kısmen doğrulanmıştır. Çünkü, yaş psikolojik iyilik, yaşam kalitesi ölçeğinin fiziksel sağlık bileşeni ve yaşam kalitesi ölçeğinin ortalamasını, istatistiksel anlamlı pozitif ve daha önceki çalışmalarla tutarlı olarak (Hofer et al., 2005;Kilian et al., 2001;Wahl et al., 2004) yordamıştır. Ancak eğitim yaşam kalitesinin ruhsal sağlık bileşeni ile beklenenin aksine ve daha önceki çalışmaların sonuçlarıyla tutarsız olarak (Elal & Krespi, 1999; Wahl et al., 2004), istatistiksel anlamlı negatif olarak yordamıştır. Çalışmaya katılan hastaların, sadece % 4.7'sinin üniversite mezunu olmasının bu sonuca sebep olmuş olabileceği düşünülmektedir. Ailenin aylık geliri, ev ve otomobil sahibi olmak ve çalışıyor olmak değişkenlerinin yaşam kalitesi üzerine etkisi anlamlı düzeyde bulunmamıştır.

Araştırmanın hastalık değişkenleriyle ilgili, böbrek hastalığının ve hemodiyalizin süresi, ve hastalık hakkında bilgi sahibi olmak yaşam kalitesini olumlu etkiler, ancak, hastanede yatış süresi, başka bir kronik hastalık yaşam kalitesini olumsuz etkiler, hipotezi kısmen doğrulanmıştır. Başka bir kronik hastalığın olması, yaşam kalitesi ölçeğinin fiziksel ve ruhsal sağlık bileşeni ve yaşam kalitesi ölçeğinin ortalamasını, istatistiksel anlamlı pozitif ve daha önceki çalışmalarla tutarlı olarak (Mallick & Gokal, 1999) yordamıştır. Böbrek hastalığının ve hemodiyalizin süresi, hastalık hakkında bilgi sahibi olmak ve hastanede yatış süresi değişkenlerinin yaşam kalitesi üzerine etkisi anlamlı düzeyde bulunmamıştır.

Araştırmanın, algılanan eleştirici/düşmanca tutum yaşam kalitesini olumsuz etkiler, ancak, iyimserlik, benlik saygısı, algılanan sosyal destek, ve algılanan başetme öz yeterliliği yaşam kalitesini olumlu etkiler, hipotezi kısmen desteklenmiştir. Algılanan eleştirici/düşmanca tutum psikolojik iyiliği istatistiksel anlamlı negatif ve daha önceki çalışmalarla tutarlı olarak (Renshaw et al.,2001; Kavanagh, 1992); benlik saygısı psikolojik iyilik ve yaşam kalitesi ölçeğinin ortalaması değişkenlerini istatistiksel anlamlı pozitif ve daha önceki çalışmalarla tutarlı olarak (Benyamini et al., 2004; Glendinning, 1998; Makikangas & Kinnunen, 2003; Schroevers et al., 2003); algılanan başetme öz yeterliliği ise tüm sonuç değişkenlerini (psikolojik iyilik, yaşam kalitesi ölçeğinin fiziksel ve ruhsal sağlık bileşeni ve yaşam kalitesi ölçeğinin ortalamasını), değişkenlerini istatistiksel anlamlı pozitif ve daha önceki çalışmalarla tutarlı olarak (Turk & Feldman, 1992;Eiser et al., 2001;Clark & Dodge, 1999;Kuijer & De Ridder, 2003;Northouse et al., 2002) yordamıştır. İyimserlik, algılanan sosyal destek değişkenlerinin yaşam kalitesi üzerine etkisi ise anlamlı düzeyde bulunmamıştır.

Araştırmanın, sosyodemografik değişkenler, hastalıkla ilgili karakteristikler, algılanan eleştirici/düşmanca tutum, iyimserlik, benlik saygısı, ve algılanan sosyal destek, yaşam kalitesini etkiler ve başetme öz yeterliliği bu ilişkilere aracılık eder, hipotezi kısmen doğrulanmıştır. Başetme özyeterliliği, hemodiyaliz tedavisi süresinin, psikolojik iyilik üzerine etkisine, ve ailenin gelirinin etkisini, yaşam kalitesi ölçeğinin ortalaması değişkeni üzerine etkisine aracılık etmiştir. Başetme özyeterliliğinin sadece iki değişken için aracılık etmiş olmasının sebebinin, araştırmada genel başetme özyeterliliği ölçümü yerine, spesifik başetme özyeterliliği ölçümünün kullanılmış olmasından kaynaklanmış olabileceği düşünülmüştür.

Araştırma sonucunun, Kaynakların Korunumu modeli'nin (Hobfoll, 1989) kullanılarak, kaybedilen kişisel yada çevresel kaynakların yeniden kazanımlarının sağlanması için, etkin stratejilerin geliştirilmesi ve hastalığa özgü öz yönetim programlarının oluşturulması için rehberlik edebileceği düşünülmektedir. Ayrıca, SDS, ve CSES ölçeklerinin, hemodiyaliz hastalarında olası sorunları değerlendirme ve hastalara yönelik müdahale programlarının, her bir hastaya uygun hale getirilmesi ve psikolojik destek programlarının içeriğinin belirlenmesi amacıyla uygulanabileceği düşünülmektedir. Semptomların ve semptom sıkıntılarının kontrol altına alınarak, hastalığın psikolojik iyilik ve yaşam kalitesi üzerine olumsuz etkilerininin azaltılması için, bilişsel davranışcı ve eğitimsel programlarla öz yeterlilik düzeyinin artırılmasının, değerli sonuçlar doğurabileceği düşünülmektedir. Ancak, öz yeterlilik düzeyi ve psikolojik iyilik ve yaşam kalitesi arasındaki ilişkinin, nedensel doğasının ortaya konabilmesi için, hastalık süresince yapılan ileri araştırmalara gereksinim duyulmaktadır. PEES ölçeğide, hemodiyaliz hastaların ilk değerlendirme görüşmelerinde kolaylıkla kullanılarak, aile içindeki, hasta tarafından algılanan eleştirici/düşmanca tutumu azaltmak amacıyla, aile danışmanlığı için müdahale amaçlı olarak kullanılabilir. Ancak yine, hasta ve hasta yakınlarının karakteristikleri ve algılanan eleştirici/düşmanca tutum arasındaki ilişki, algılanan eleştirici/düşmanca tutuma eşlik eden psikolojik sorunlar ve eleştirici/düşmanca tutumun psikolojik iyilik ve yaşam kalitesi üzerine etkilerinin araştırılması önerilmektedir. Araştırma sonucu ayrıca, benlik saygısının artırılmasına yönelik müdahalelerin de sağlıkla ilgili sonuçların iyileştirilmesine, katkıda bulunabileceğini göstermektedir. İyimserlik, ve algılanan sosyal destek ile psikolojik iyilik ve yaşam kalitesi arasındaki ilişkilerin daha iyi anlaşılabilmesi amacıyla değişkenlerin farklı yönlerinin ölçümlerinin de dahil edildiği ileri araştırmalara ihtiyaç duyulmaktadır.

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High School	Erenköy Tevfik Sağlam Sağlık Meslek Lisesi, Istanbul	1991

WORK EXPERIENCE

Year	Place	Enrollment
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FOREIGN LANGUAGES

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PUBLICATIONS

Yalçınkaya Alkar, Ö., & Karanci, A.N. (2006). What are the Differences in Decisional Balance and Self-efficacy Between Turkish Smokers in Different Stages of change? *Addictive Behaviors (in press).*

Yalçınkaya Alkar, Ö., & Gençöz, T. (2005). Critical factors associated with early postpartum depression among Turkish women. *Contemporary Family Therapy, 27,* 263-275.

HOBBIES

Movies and plays, Step, aerobic, fitness, Swimming, Skiing, Argentino Tango, Traveling.