CHAPTER 1

INTRODUCTION

Background and significance of research problem

The end stage renal disease [ESRD] is a global problem that used to be recognized as an incurable disease. It is the end result of many pre-renal, renal, and post-renal diseases as well as other systematic diseases, such as diabetes, hypertension, systemic lupus erythematosus, and polyarteritis (McCarley & Lewis, 1996). The incidence rate is about 50-100/million per year throughout the world (Xie, 1995). In the United States, over 220,000 individuals had end stage renal disease in 1995; the number could double in the next seven years if current trends continue (McCarley & Lewis, 1996). There are about 80,000 to 100,000 new cases in China annually (Xia, 1996). The treatment options for patients with end stage the renal disease fall into three broad categories: hemodialysis, peritoneal dialysis, and renal transplantation. Among them, renal transplantation is commonly recognized as one of the most promising options. The first successful renal transplant was performed in the United States in 1954 (Holechek, Agunod, Diggs, & Darmody, 1995). With the surgical procedure improvement, the utilization of human leukocyte antigen (HLA) compatibility and the effective immunosuppressive drugs used, the renal transplantation has been widely chosen as a treatment regimen for ESRD patients within the recent 20 years. About 26.5 percent of ESRD patients received renal transplantation (Chan & Kam, 1997). In China, the first transplant case was successfully performed in the hospital of Beijing Medical University in 1960 (Xia, 1974). Nowadays, about 2,000 to 2,500 patients receive renal transplantation each year in China.

Frauman, Gilman, and Carlson (1996) stated that renal transplantation is often considered to be a "cure" of ESRD by nurses and other health professionals as well as by most of family members. However, the results of their study provided some evidences that this might not always be the case. Sutton and Murphy (1989) mentioned that receiving transplantation was a life changing event at times, and is not a panacea. There are some problems existed that having impact on patient's quality of life.

According to Ferrans and Powers (1985), quality of life included four domains which are health and functioning, psychological/spiritual, socioeconomic, and family. Renal transplantation can place various impacts on the patients in these four domains.

In health and functioning domain, renal transplant patients may have some dietary and medical restrictions resulting from undergoing diseases, such as diabetic status that needs to be controlled continuously. Also other body functions might be affected. Sexual function may not normally return; renal functions may not stable or threaten by possible organ rejection or infection. Medications used may produce unpleasant side effects which include weight gain, acne, hypertension, hair growth, bone marrow suppression and increased risk of cancer (Holechek et al., 1995). These changes in health and functioning may induce negative psychological responses.

In psychological/spiritual domain, Christensen (1989, cited in Christensen & Moran, 1998) found that higher levels of illness-related physical health and functional impairment were associated with more depression and greater anxiety in some renal transplant patients. Sutton and Murphy (1989) identified five most stressful aspects experienced by transplant patients namely: medical cost, fear of organ rejection, weight gain, uncertainty concerning the future, and limitation of physical activities. White, Starr, Ketefian and Lewis (1990) found that there was a negative correlation between quality of life and stress variables and stated that respondents with a perceived low quality of life reported higher total number of stressors. Beer (1995) mentioned that renal transplant patients usually suffered from some degree of self-concept disturbance and altered body image. All of these impact patients' psychological/spiritual domain of quality of life, and contribute to social impairment of these patients.

In socioeconomic domain, the several outpatient department follow-ups, time away from work, self-monitoring body weight, urine glucose test and managing complex medication regimen not only disturbed normal daily living, but also decreased the leisure time activities and social involvement (Hayward, Kish & Frey, 1989). Besides, as above mentioned, transplant patients with self-concept disturbance and altered body image easily withdraw from social gathering. At the same time, their social adjustment, interpersonal relations and role functioning are influenced (Beer, 1995). The operation and life-long immunosuppressive drug used brought the big economic burden to patients and their families. Moreover, job opportunities of transplant patients decrease, their income also decreases (Molzahn, 1991). With on-going of the medication used and several laboratory tests for blood concentration of the immunosuppressant and renal function, financial strain may become more serious problem. The socioeconomic changes may have impact on patients' quality of life, and also together with other factors disrupt their family lives.

In family domain, although quality of life related to multiple factors, a major contribution for many individuals was the ability to enjoy family interactions (Ferrans and Powers, 1992). Research results suggested that receiving renal transplantation could alter role allocation within family and impact on the patient's family, especially their spouses and young children. A study of Lewis and colleagues (1990) showed many spouses of transplant patients suffering from anxiety and insomnia. On the other hand, repeated hospitalizations of transplant patients and endless trips to hospital for follow-up severely disturbed normal family life (Hauser, Williams, Strong & Hathaway, 1991).

Although receiving renal transplantation may bring positive consequences to patients' health and functioning, it possibly induces negative psychological responses, bring social disruption and economic problems, and influence patients' family life. Consequently, their whole quality of life was impacted. Therefore, in caring for patients with renal transplantation, nurses should not concern only about their survival rate but also about their quality of life.

Many studies have tried to explore the factors that may associate with quality of life, such as Evan (1985, cited in Ferrans and Powers, 1993) reported education, race, marital status and social support had a significant influence on quality of life for ERSD patients in their study. Gender and employment are also claimed by Ferrans and Powers (1993) and by Dibble, Padilla and Dodd (1998) as the factors contributing to quality of life of hemodialysis patients and cancer patients, respectively. Among so many associated factors, it is generally agreed that social support was an obviously important one, and vast literature suggested that social support could improve the individuals' adaptations to particularly stressful life events such as critical or chronic diseases, thus improve quality of life of patients (Cohen, 1988, White, Richter & Fry, 1992).

Based on Weiss' relational provisions model (1974), Brandt and Weinert (1981) defined social support including five dimensions namely: attachment/intimacy, social integration, opportunity for nurturant behavior, reassurance of worth as an individual and in role accomplishments, and the availability of informational, emotional, and material assistance. Social support has both stress buffering and direct effects on persons' health (Cohen, 1988). It is claimed that from different dimensions, social support positively effects wide variety of patients' outcomes, including physical health and functioning, psychological well-being and family interactions (Catalan, Burgess, Pergami, Hulme, Gazzard & Phillips, 1996). Even though a number of studies have investigated social support and quality of life, few studies were about social support and quality of life among renal transplant patients. Since there were some cultural, social and economic differences between western countries and eastern ones like China, the social support and quality of life among Chinese people may be different from western people. The previous research results may not be directly applied to Chinese patient.

The Renal Transplantation Department of the First Teaching Hospital of Xi'an Medical University is the fifth biggest center for renal transplantation in China. Approximately, 800 patients have received the renal transplantation treatment in this department since 1988 (Xue, 1997). From 1990, about 95-110 cases of renal transplantation have been performed annually. The information derived from the study conducted at this setting would help nurses recognizing the importance of social support in relation to quality of life among renal transplant patients. The nurses could take this into considerations in planning appropriate interventions to help patients identifying their support systems and facilitate various supporting resources from society in order to improve their quality of life.

Objectives of the study

The objectives of this study were:

1. to identify the quality of life among renal transplant patients;

2. to identify the social support among renal transplant patients; and

3. to examine the relationship between social support and quality of life among renal transplant patients.

Hypothesis

There was a positive relationship between social support and quality of life among renal transplant patients.

Definition of terms

Social support	refers to the relational provisions for attachment/intimacy, social integration, opportunity for nurturant behavior, reassurance of worth as an individual and in role accomplishments, and the availability of informational, emotional, and material assistance. It can be measured by Personal Resource Questionnaire-85 Part 2 developed by Weinert and Brandt(1987) which was modified and translated into Chinese by Yan (1997).
Quality of life	refers to the renal transplant patient's sense of well-being which includes health and functioning, psychological/spiritual, socioeconomic, and family. It can be measured by the instrument of Ferrans and Powers Quality of Life Index-Kidney

Transplant Version (1985).

Renal transplant patients	refers to those individuals who received kidney replacement attending the Renal Transplant Outpatient Clinic of the First Teaching Hospital of Xi'an Medical University for follow up schedule.