Quality of life, psychological stress and death anxiety among liver and renal transplant recipients

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ABSTRACT

Objective: To assess the relationship between Quality Of Life, Psychological Stress and Death Anxiety and impact of death anxiety and stress on quality of life among Liver and Renal Transplant Recipients.
Study Design: Descriptive cross-sectional study.
Place and Duration: At Sheikh Zayed Hospital Lahore, in six month from 04th Oct 2016 to 30th March 2018.
Methodology: Three hundred pre-liver and renal transplantation recipient patients (68.7% males and 31.3%) female were assessed on Quality of life scale, Death anxiety scale, and depression, anxiety and stress scale.
Results: Results revealed that stress significantly positively correlated with death anxiety (0.31) and with quality of life negative correlation was found (-0.29). Quality of life significantly predicted by death anxiety and stress with variance of 25%, and 13%. Partial mediation of death anxiety was found; results explained 32% variation of quality of life. The results showed that quality of life and death anxiety was considerably different among liver and renal recipient patients. Level of stress was different among patients of different age groups.
Conclusion: Stress and death anxiety deeply affect the quality of life among liver and renal transplant recipients.
Keywords: Liver, Renal transplant, Recipient, Death anxiety, Psychological stress, Quality of life

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INTRODUCTION

Organ replacement is a stressful experience due to change of body organ. Fear of death, body stress, drugs side effects, nutrient modification, restlessness, sexual issues, recognition of socio-economic behavior and public relationship. Advance studies of liver and kidney transplantation point out the psychological and emotional strain due to rejection of graft in acute phase[1]. In such patients, depressiveness and hopelessness, anxiety, violent behavior, expectation, and assurance would be different in an irregular pattern, instead of steady process of adaptation. In the last stage of organ failure, the patient has less life hope and wants for organ transplantation. Before and after the transplantation patient have some mental problems like anxiety disorders[2].

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Health-related Quality Of Life (QoL) is an important measure of how a disease affects the lives of patients. The Quality Of Life (QoL) domains include physical, psychological, and social functioning and general satisfaction with life[3].Numerous studies have demonstrated that these patients have a lower Quality Of Life (QoL) than that of healthy populations[4-6]. Depression is strongly correlated with decreased health related Quality Of Life (QoL), especially in mental dimensions[7]. Furthermore, several studies have shown that patients with poorer Quality Of Life (QoL) had a higher incidence of anxiety and fatigue[8], and longitudinal follow-up showed increased mortality[9].Death is a powerful human anxiety which give an idea as a strong inspiring force behind most inventive appearance and philosophical query all over the age's death anxiety is a phrase use to give idea about nervousness generated by death consciousness[10].

Many studies has been conducted at national and international level for measuring quality of life, psychological distress and

death anxiety in pre liver, pre renal donor and recipient patients[3]. This research planned to evaluate the quality of life, mental stress and death anxiety in pre liver transplant and pre renal transplant patients including donor and recipient. A number of tools designed in past few years for measurement of transplanted patient's Quality of life and psycho social response. Transplantation reflected the complex cognitive, emotional and behavioral effects[11].

Death anxiety is termed as the fear caused by death awareness, fear related to one's existence and becoming a non-being[12-14]. In chronic diseases, the occurrence of death related thoughts has been explored. Some investigations have shown that females have more fear of death (death anxiety) than their counter part[15]. Whereas some other studies reported higher level of death anxiety in relationship with physical and psychological problems among elderly people[16]. Levels of depression, anxiety and death anxiety were explored among patients with some chronic diseases. A positive relationship between disease duration and death anxiety was found[17].

Existing literature provided evidences about the relationship between psychological and physical problems[17]. Patients with different chronic illnesses has already been investigated[15], very few has been reported among patients of liver and renal transplant recipient. This study was aimed to explore these phenomenon among these patients. The rationale of our study was to evaluate how death anxiety and stress have an impact on quality of life of patients. Furthermore it was aimed to investigate the mediating role of death anxiety in relationship between stress and quality of life. The main objective of the study was to explore the relationship between Psychological distress, death anxiety and quality of life among pre liver and pre renal transplant recipients.

METHODOLOGY

This Descriptive cross-sectional study was done at Sheikh Zayed Hospital Lahore. All transplant participants were selected through purposive sampling technique and comprises of enrolled patients of liver and renal transplant recipients at Sheikh Zayed Hospital Lahore. Patients with other diseases (like heart disease, stroke, diabetes mellitus, asthma, cancer, arthritis and osteoporosis) were not included in this study. The demographic variables used were registration number, name, address, age, gender, profession, income per month, monthly cost on disease, total cost on disease and duration of disease.

The quality of life scale by Flanagan was used, it has 16- items. It is applicable to chronic diseases patients. It is widely used to check the quality of life during disease in five domains i.e. Physical, emotional, financial, sexual relationship and social. It is a 5-likert scale with five response categories. Responses were scores as highly satisfied (1), satisfied (2), neutral (3), dissatisfied (4), strongly satisfied (5)[18].

The death anxiety scale (DAS) by Templer was used, it has 15-items. This scale has incontestably been used all over the world rather than other death attitude instruments. It is a 5 point likert scale with five response categories. Responses were scores as strongly agree (1) agree (2), neutral (3), disagree (4), strongly disagree (5)[19].

The depression anxiety and stress scale (DASS) by Lovibond, and Lovibond, was used, it has 42 items. The DASS is self-report inventory that yield 3 factors: Depression; Anxiety; and Stress. Researchers can use score of any one factor out of three for their study as this scale provide separate score for all three factors. Responses were scores as Normal (1), Mild (2), Moderate (3), Sever (4), Very severe (5)[20.] Data was collected by using these instruments and one of the researchers had collected the data.

Data Analysis: Different statistical analyses were applied by SPSS version 22 in order to find results such as Pearson correlation, linear regression, ANOVA and independent sample t-test.

RESULTS

Total 300 patients both male (n=206, 68.7%) and female (n=94, 31.3%) with mean age of 32.70 years and all were diagnosed patients. Most of the patients were illiterate. Majority of the patients were renal recipients79.7%, only 20.3 % were liver donors in the sample. Most of the patients (38.3%) reported their monthly family income between twenty to forty thousand rupees and only 6.7% claimed that their monthly income is more than eighty thousand per month. Around 47% of patients reported that cost spending on their illness were 16000 to 25000 rupees per month.

Correlation analysis showed that stress has significant positive correlation with death anxiety ($r = 0.31$, $p < .01$). It means that as stress increases, death anxiety also increases. However, stress has significant negatively correlation with quality of life ($r = -0.21$, $p < .01$) which means that as stress increases quality of life decreases. Significant negative correlation was found between death anxiety and quality of life which reflects that as death anxiety increases quality of life decreases ($r = -0.29$, $p < .01$). (Table-I)

Table-I: Bivariate correlation between stress, death anxiety and quality of life (N=300)

Variables	Stress	Death anxiety	Quality of Life
Stress	1	.31**	-.21**
Death Anxiety		1	-.29**
Quality of Life			1

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

Table-II: Hierarchical regression analysis for stress and death anxiety (N=300).

	Death Anxiety			
Predictors	B	Std. Error	Beta	P
Constant	26.05	1.90		
Stress	.31	.05	.31***	0.000

Note. R2 = 0.31, Adjusted R2 = 0.30, (F= 33.61, p < = 0.01)

Hierarchical regression for assessing the mediating role of death anxiety in the relationship between Stress and Quality of Life was done. A series of regression equations were done to test mediation[21]. First analysis was performed in order to see the

prediction of Stress on quality of life. Model 1 explained 31 % variance in quality of life (p < .000) with stress, which means that stress has significant impact on quality of life. (Table-II)
Results of second regression analysis showed that stress has significant impact on quality of life. Death anxiety negatively significantly predicts quality of life and death anxiety partially mediated the relationship between stress and quality of life. Overall results explained 32 % variance in the quality of life (p <.000). The first model explained 21 % variance in the quality of life (p < 000). Stress negatively significantly predicts Quality of Life (p<0.000). (Table-III)

Table-III: Hierarchical regression analysis for stress and death anxiety as predictors of quality of life (N=300).

	Quality of Life			
Variables	**B**	**Std. Error**	**Beta**	**P**
Constant	51.52	2.02		
Stress R2 = 0.21	-.21	.05	-.21***	0.00
Death Anxiety R2 =0.26	58.37	2.50		
	-.13	.05		
	-.26	.06	-0.25***	0.00

DISCUSSION

This study was aimed to explore the relationship between death anxiety, stress and quality of life. Correlation analysis showed that Stress significantly positively correlated with Death Anxiety. Patients with higher level of stress also have higher level of death anxiety. It might possible that their chronic illness is the one major cause of their stress and this stress is producing death anxiety. These findings are in the line of previous investigations where occurrence of death related thoughts has been explored among patients of chronic diseases. Some investigations have shown that females have more fear of death (death anxiety) than males[15]. Whereas some other reported higher level of death anxiety in relationship with physical and psychological problems among elderly people[16]. Cross cultural studies found that gender and education was associated with higher death anxiety[5-7]. Complex relationship between age and death anxiety was also explored and it was found that age plays a significant factor in the perception of death anxiety[8].
Correlation analysis further revealed negative relationhip of stress with Quality of Life. Patients with higher level of stress had poor life quality. There are many other potential factors which might affect like illness, financial burden psychological etc. These findings are in the line of previous national and international level for measuring quality of life, psychological distress and death anxiety in pre liver, pre renal donor and recipient patients[21]. Result of previous study showed pre transplant anxiety and depression affect quality of life and mental health[22]. Constant liver illness considerably deteriorates the patient's health and life quality. A research in patients with chronic liver disease showed that these individuals experience significant impairments in their health-related quality of life[23]. The patients' after organ treatments can have improved quality of life, reduced fear of death and uncertainty of life[24]. Demographic characteristics of the patients showed that most of the participants were males in the sample and most of the patients were between 40-61 years. The prevalence of liver cirrhosis and renal failure was higher in males. Numerous studies have demonstrated that kidney patients have a lower QoL than that of healthy populations[25].
Hierarchical regression was conducted to assess the impact of stress on quality of life and mediation of Death anxiety between this relationships. Results revealed that stress has significant impact on Quality of Life. In the Second Regression analysis Quality of Life was regressed by Stress in the first analysis and Death anxiety in second phase of analysis. Death anxiety negatively significantly predicts Quality of Life and death anxiety partially mediated the relationship between Stress and Quality of Life. Previously death anxiety appears to be a basic fear at the core of a range of mental disorders, including, panic disorder, hypochondriacs, depressive disorders and nervousness[25]. Similarly awareness of fear of death and mortality is a big issue of individuals according to past record throughout the life[26]. The findings of the study found relationship between stress, death anxiety and quality of life and mediating role of death anxiety.

CONCLUSION

Stress and death anxiety deeply affect the quality of life among liver and renal transplant recipients.

LIMITATIONS AND RECOMMENDATIONS

This study was delimited to pre liver and pre renal transplant patients from department of liver transplant and renal transplant unit of Sheikh Zayed hospital Lahore. Post transplant patient were not included in this study. For batter results and to get insightful knowledge regarding the phenomenon pre and post investigation is recommended. It is recommended that policy maker should appoint the counselors' for awareness of liver and renal transplanted patients. Role of psychologist will be helpful to cope with the stress, to reduce death anxiety and will improve the life quality of patients.

CONTRIBUTION OF AUTHORS

Perveen N: Data collection, Manuscript writing.
Batool I: Conceived idea, Collection of scales, Designed methodology, Manuscript writing.
Asher M: Statistical analysis, Data analysis.
Malik G: Manuscript writing, Proof reading

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