



## Original Article

## Religious Coping and Emotional Adjustment among Patients Undergoing Dialysis: Treatment Perception as Moderator

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## ABSTRACT

Kidney problems are increasing in world as well as in Pakistan. Waste produced in the human blood is filtered through kidneys. When human kidney fails to operate their functions properly, dialysis is the way people can live the rest of their life. **Objective:** To explore the moderating role of treatment perception on religious coping and emotional adjustment among patients undergoing dialysis. **Methods:** Treatment Perception Questionnaire, Brief R-Cope Scale and Emotional Adjustment Measure were used for data collection. 200 dialysis patients; 100 males, 100 females from 19-80 years were selected by using purposive sampling. **Results:** The results showed significant positive correlation among treatment perception, positive religious coping and emotional adjustment. Treatment perception is significant positive moderator between positive religious coping and emotional adjustment. Positive religious coping and emotional adjustment were greater in older patients, while negative religious coping is greater in younger patients. Female patients have perceived their treatment positively and have greater use of positive religious coping as a result they were more emotionally adjusted than male patients. Additionally, less treatment duration patients have high level of treatment perception, positive religious coping and emotional adjustment than patients having more treatment duration. **Conclusions:** The findings of this study will help clinical professionals and social workers to have better understanding of these variables, to introduce, promote and modify the required remedies and therapeutic techniques to help out the patients so that they can improve their level of religious coping and emotional adjustment.

## INTRODUCTION

Every tenth person in the world has some sort of kidney problem as well as every year one in 10,000 people faces kidney failure. In Pakistan there are about two million kidney patients, with an increase of 20,000 new patients every year [1]. When human kidney fails its functions, dialysis is the only process to replace the functions of the kidneys [2]. Treatment perception refers to patient's perception about treatment procedures that whether their needs and wants of treatment are being fulfilled and satisfied [3]. Treatment procedure may consist of the ability, availability of treatment, material and outcome of received treatment. While moderately monitor the care center funders and providers, and treatment perception is

believed to be a respected indicator of clinical practice. Perception of treatment may serve as a treatment result referee, while it is reasonable to assume that clients who are less pleased with treatment may leave or have a range of reactions to treatment intervention [4]. Patients undergoing dialysis face many psychological problems, documented regularly, as: joblessness, financial problems, regular hospitalizations, changes in family roles, shifting social and personal relationships, holiday boundaries, prohibitions on leisure, overemphasis on artificial kidneys. So they use defense mechanisms to cope with disease [5]. In religious coping patients cope with difficult situations by using religious means [6]. Religion is mainly a central

source to cope with hard circumstances. Both positive and negative religious coping strategies implies universally by religion and traditions, although cultural differences exist in its coping types, styles and prevalence [7]. Religious coping has two dimensions positive religious coping reflects a trustful and pleasant relationship with God, includes strategies to spiritual guidance and compassionate reviews [8]. While negative religious coping constitutes a less secure connection to God, as religious dissatisfaction and harsh religious reassessments [9]. Emotional adjustment is not inclined to; feel negative emotions, develop irrational thoughts, or inhibit desires when faced with stressful life events. This includes short tempered, touchy, anxious, irritable, unstable, depressive and pitiful versus regulated, stable, calm, self-satisfied and cool characteristics [10]. Various end-stage renal disease associated stressors can have severe psychological consequences including anxiety and depression [11]. Previous studies mostly conducted on treatment perception, religious coping and emotional adjustment but either on one variable or another [12-14]. No prior research explains that how treatment perception moderates the relationship of religious coping and emotional adjustment specifically for patients undergoing dialysis, also fail to explain role of demographic characteristics of patients (duration of treatment, gender, age) on study variables. As previously least researches conducted on the interrelationship among religious coping, treatment perception, and emotional adjustment particularly in patients undergoing dialysis, so in the present conditions current study is very significant and cannot be neglected. This current study has significant implications for clinicians, psychotherapist, and social workers for developing better understanding of patients. Current findings are helpful for both introducing new therapies and updating the existing therapies to deal patients to improve their emotional adjustment level to gets better control on negative religious coping. This study helped to modify the practical approaches used by professional to make them more effective and productive. This study aimed to check treatment perception as moderator in the relation of religious coping with emotional adjustment particularly in patients of undergoing dialysis; as well as to examine the interrelationship of these variables. Furthermore, this study also explained the role of demographic characteristics on the level of treatment perception, emotional adjustment, and religious coping in undergoing dialysis patients.

## METHODS

The quantitative study was conducted on a sample of 200 dialysis patients (Male = 100 and Females = 100), from Nawaz Sharif Kidney Hospital Swat, Saidu Teaching Hospital Swat,

King Abdullah Teaching Hospital Mansehra and Ayub Medical Complex Abbottabad, between June 2019 to September 2019. The registered cases during that time duration were 615; out of these 25% of population size was taken for sample selection. With the help of online Google calculator with 95% confidence interval and 5 % margin of error, the calculated sample size was 197. So on the whole 200 dialysis patients were selected for data collection in order to obtain desired sample size. Purposive sampling technique was used to select sample with age range 19-80 years. Sample was divided on the basis of treatment duration into two categories (less duration of treatment n = 78; long duration of treatment n = 122). Only those patients who were on dialysis treatment were included in the present study, kidney patients who were not on dialysis treatment were excluded from the current research study. Treatment Perception Questionnaire (TPQ), use five point Likert scale for scoring its 10 items [3]. Negative scoring items were 2, 4, 6, 8 & 9. Alpha reliability for TPQ was 0.83. Brief Religious coping scale has 14 items with 4 point scoring criteria [9]. Positive Religious Coping (PRC) was assessed with first 7 questions while Negative Religious Coping (NRC) was assesses with last 7 questions of scale. The alpha values of PRC and NRC are 0.93 and 0.82 respectively. Emotional Adjustment Measure (EAM) has 28 items, with six-point scale [15]. The reliability confident for EAM is 0.81. Prior permission and ethical approval from ethical committee of department as well as from relevant authorities, head of department and hospital in-charge has been obtained. Written informed consent was taken from participants for their willingness to participate. For data collection the selected scales were distributed among sample of patients. Instructions were given to respondents regarding scales and requested to read and fill every item of questionnaires. Finally, they were thanked for participation. Four statistical analyses (reliability, multiple hierarchal regression, correlation and t-test) were used to analyze data through 20.0 version of Statistical Package of Social Sciences (SPSS).

## RESULTS

The data for the present study were collected from 200 dialysis patients, out of those, 100 were male patients and 100 were females, on the basis of treatment duration (patients with less duration of treatment were 78; patients with more duration of treatment were 122) and age range of the patients was 19-80 years. Alpha reliability of TPQ, PRC, NRC and EAM were 0.71, 0.81, 0.79, 0.90 respectively, indicating these scales as reliable measures. Significant item-total correlations indicate that all scales have satisfactory level of construct validity.

Table 1 shows significant positive correlation of TPQ with PRC and EAM, while it was significantly negatively related

with NRC. PRC had significant negative association with NRC and had significant positive correlation with EAM. Similarly, NRC had significant negative association with EAM. Table revealed non-signification relationship of patients' age with TPQ and EAM, while it linked significantly positively with PRC and negatively significant with NRC.

**Table 1:** Correlation Matrix of Age, Emotional Adjustment Measure (EAM), Positive Religious Coping Scale (PRC), Treatment Perception Questionnaire (TPQ) and Negative Religious Coping Scale(NRC; N=200)

Scale	Age	TPQ	PRC	NRC	EAM	M ± SD
Age	-	0.131	0.212**	- 0.171*	0.033	41.12 ± 16.20
TPQ	-	-	0.691**	-0.572**	0.674**	19.60 ± 3.84
PRC	-	-	-	-0.742**	0.613**	20.98 ± 3.08
NRC	-	-	-	-	-0.491**	15.89 ± 2.88
EAM	-	-	-	-	-	91.50 ± 15.12

**Note:** M = mean; SD = Standard Deviation.

$\rho > 0.05$ , \* $\rho < 0.05$ , \*\* $\rho < 0.01$

Table 2 identifies positive religious coping as significant predictor of emotional adjustment which created 37.2% variance in it. The next step also indicated treatment perception as significant predictor of emotional adjustment that added 12.1% more variance in it. The third step showed that the interaction of positive religious coping and treatment perception also significantly predicted emotional adjustment and create additional 1.1% variance in it. Overall, 50.4% variance created by positive religious coping, treatment perception and their interactions.

**Table 2:** Hierarchical Multiple Regression Analysis Predicting Emotional Adjustment (EA) from Positive Religious Coping (PRC) and Treatment Perception(TPQ)

Predictors	Variables	$\Delta R^2$	B
Step I	-	0.372	-
	PRC	-	0.612**
Step II	-	0.121	-
	PRC	-	0.282**
	TPQ	-	0.483**
Step III	-	0.011	-
	PRC	-	-0.341
	TP	-	-0.482
	PRC*TPQ	-	1.461*
Total R <sup>2</sup>	-	0.504	-

**Note:**  $\Delta R^2$  = Delta R Square;  $\beta$  = Standardized Beta

$\rho > 0.05$ , \* $\rho < 0.05$ , \*\* $\rho < 0.01$

Table 3 shows significant differences of males and females on TP, PRC and EA, which showed that all three variables were more in females than male patients.

**Table 3:** Gender Differences on Treatment Perception (TP), Positive Religious Coping (PRC) and Emotional Adjustment (EA; N=200)

Variable	Male (100)	Female (100)	t (198)	p-Value	95% CI		Cohen's d
	M ± SD	M ± SD			LL	UL	
TP	18.38 ± 3.27	20.78 ± 4.92	3.90	0.001	-3.40	-1.39	0.66
PRC	20.11 ± 2.88	21.86 ± 3.01	4.23	0.03	-2.59	-0.94	0.59
EA	84.95 ± 11.90	98.03 ± 15.20	6.75	0.01	-16.9	-9.7	0.95

**Note:** M = Mean; SD = Standard Deviation; CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit

Table 4 shows significant differences in time duration of treatment on TP, PRC and EA. This showed that all these variables were greater in patients with treatment duration of less than a year than in patients with greater treatment duration.

**Table 4:** Differences in Time Duration of Treatment on Treatment Perception (TP), Positive Religious Coping (PRC) and Emotional Adjustment(EA; N= 200)

Variable	One Year or Less (78)	Greater than a Year (122)	t (198)	p-Value	95% CI		Cohen's d
	M ± SD	M ± SD			LL	UL	
TP	21.25 ± 3.74	18.52 ± 3.41	5.30	0.01	1.71	3.75	0.76
PRC	22.28 ± 2.60	20.15 ± 3.08	5.05	0.01	1.27	2.93	0.74
EA	99.06 ± 15.81	86.66 ± 12.52	6.13	0.01	8.39	16.34	0.86

**Note:** M = Mean; SD = Standard Deviation; CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit.

## DISCUSSION

The current research explored the role of treatment perception between religious coping and emotional adjustment in dialysis patients. Another purpose was to investigate the role of demographic variables; age, gender and treatment duration on these variables. The data analysis showed significant positive correlation of PRC with TP and EA, while TP and EA have significant negative correlation with NRC. A previous study supported these results by finding low levels of pain in patients who use religious coping. Religious coping is very effective in chronic diseases [16]. Positive religious coping lowers emotional discomfort in chronic kidney disease patients [17]. Negative religious coping predicted higher level of behavioral and emotional problems in chronically ill patients [18]. The results indicated that positive religious coping, treatment perception and their interaction predicted emotional adjustment in significant positive way. Earlier findings concluded that treatment perception is a strong predictor of emotional adjustment in chronically ill patients [19]. Involvement in positive styles of religious coping minimizes symptoms of depression and maximizes emotional adjustment and has positive effects [20]. The results discovered significant positive association patients' age with positive religious coping and significant negative association of age with negative religious coping

style whereas age has non-significant association with emotional adjustment and treatment perception. Previous researches concluded that older patients have high scores on positive religious coping than younger patients [21]. Emotional adjustment is higher in older than younger patients with chronic disease [22]. The results revealed significant gender differences on positive religious coping, emotional adjustment and treatment perception. Previous studies concluded that female scored higher on positive religious coping than male patients [21]. Male patients reported greater emotional distress than female patients [23]. The data analysis discovered significant differences of treatment duration on emotional adjustment, positive coping and treatment perception which showed that all of these variables are greater in individuals with less treatment duration than with more treatment duration. By concluding earlier studies; the negative perception of treatment in patients who have long-term dialysis has resulted in more daily life disturbances than the short-term dialysis patients [24]. People with long-term physical illness have higher emotional distress than people with short-term physical illness [25].

## CONCLUSIONS

The present study concluded significant positive association among positive religious coping, emotional adjustment and treatment perception, whereas negative styles of religious coping had significant negative association with emotional adjustment and perception of treatment. Additionally, the study concluded significant association between age and involvement in positive ways of religious coping. Significant differences of gender indicated that women perceive their treatment more positively, had greater involvement in positive religious coping and they had greater emotional adjustment than males. Similarly, emotional adjustment, positive religious coping and treatment perception were significantly greater in those with less duration of treatment than inpatients with more treatment duration.

## Authors Contribution

Conceptualization: TA

Methodology: SN, FKA

Formal analysis: HB

Writing, review and editing: HB, SN, FKA

All authors have read and agreed to the published version of the manuscript.

## Conflicts of Interest

The authors declare no conflict of interest.

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