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Stress, anxiety and perceived social support among hemodialysis patients with chronic kidney disease

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Abstract--Hemodialysis Patients face an emotional challenge due to several modifications required in their lifestyle and the impairments in physical and role functioning. Therefore, it is essential to find out resources that buffer them from the adverse effects of stress and anxiety. Purpose of this study was to examine the level of Stress, Anxiety and Perceived Social Support among Hemodialysis Patients with Chronic Kidney Disease in India. Also, the relationship between stress, anxiety and perceived social support has been explored using Cross Sectional Study design. The sample of the study consisted of 50 Hemodialysis patients with Chronic Kidney Disease, within the age range of 35 to 55 years who were purposively selected from two private hospitals in Uttar Pradesh. Data was collected using Depression Anxiety and Stress Scale (DASS-2, 1995) and Multidimensional Scale of Perceived Social Support (MSPSS, 1988). The descriptive statistics were applied to describe the level of Stress, Anxiety and Perceived Social Support among Hemodialysis Patients. Spearman's Rank-Order Method was applied to assess the correlation between the variables. The results showed severe level of Stress and Anxiety, and moderate level of Perceived Social Support among the Hemodialysis Patients. The results also revealed significant negative correlation between Stress, Anxiety and Perceived Social Support ($p= 0.01$). It can be

concluded from the results that Hemodialysis Patients suffer from a severe level of Stress and Anxiety. The significant and strong relationship found between Stress, Anxiety and Perceived Social Support highlights the need of adequate psychosocial interventions to reduce the negative impacts of the disease condition.

Keywords---Stress, Anxiety, Perceived social Support, Chronic Kidney Disease, Hemodialysis.

Introduction

Chronic Kidney Disease is one among several chronic diseases which causes progressive and irreversible loss of kidney function resulting in metabolic and electrolytic imbalance of the body (Gerogianni & Babatsikou, 2014). Chronic Kidney Disease can also be described as a spectrum of disorders affecting the structure and function of the kidney (Al-Maksoud et al., 2019). The disease is clinically assessed by measuring the glomerular filtration rate which is the best overall index of kidney function, and the amount of albuminuria irrespective of the cause. Albumin to creatinine ratio is considered abnormal when it is more than 30 mg/g. Glomerular filtration rate below 60% is considered abnormal for all adults, and profound kidney failure is the most severe effect of chronic kidney disease (Levey & Coresh, 2012). Indeed, the technological advances in the current global health care system have a significant role in the management of the disease which increased the survival of the patients who are in advanced stages of kidney failure, yet it is not curable.

Hemodialysis is the most commonly used treatment method for kidney failure. Hemodialysis is a procedure where a dialysis machine and a special filter (which is also known as an artificial kidney or a dialyzer) are used to clean the blood when the kidney function is impaired. The number of individuals undergoing hemodialysis is increasing every year. The time-intensive and expensive hemodialysis therapy imposes physical as well as psychosocial stress that results in a significant burden on the individual and their family (Alexopoulou et al., 2016). Physiological difficulties like fatigue and pain; emotional problems such as constant worry, sadness and depression; psychological problems like loss of identity, lifestyle changes, and reduced functional ability predominantly cause distress in the patients (Damery et al., 2019). The procedure itself and the required four hours recovery time cause tiredness and fatigue in patients undergoing dialysis. Sleep disturbance also is common in patients on hemodialysis (Cabrera et al., 2017). Besides, they are at a high risk of psychiatric disorders as they face huge emotional challenges due to lifestyle changes. Their lives revolve around dialysis sessions, medication intake, modification of diet, and fluid regulation (Al-Maksoud et al., 2019). Jadhav and Lee (2014) reported the physical, psychological, and socioeconomic stressors experienced by hemodialysis patients. Physical stressors comprised of pain, fatigue, and loss of appetite. Psychological stressors included shock, disinterest in continuing treatment, and fear of potential difficulties and uncertainties in future. Financial constraints, job loss, reduced ability to carry out daily responsibilities, and changes in social life were the main socioeconomic stressors. Manifestation of distress ranges from

normal susceptibility, sadness and fears to problems that can be disabling, such as depression, anxiety, panic, social withdrawal, and existential and spiritual crisis (Drageset, 2012).

The stress process model of mental health developed by Perlin et al. in 1981 described three major components: sources of stress, mediating resources, and manifestations of stress.

Stressor: Existence of threat, demand or structural constraint, which challenges the operating integrity of the individual. Stress is a process because stressors and their consequences arise and grow over time. Sources of stress are categorized into two: life events and life strains. Life events happen at a specific point in time. Whereas life strains develop and exist over a longer period (Gallagher, 2012).

Mediating Resources: When the stressors adversely affect the wellbeing of the individual, the existence of mediator resources serve to moderate and mediate the stressors of the individual. Social support, coping skills etc. act as the resources to alleviate stressors for the individuals. The mediating factors of stress and mental health outcomes are known as psychological or personal resources. Personal resources such as social support, self-esteem, mastery and coping mediate to mitigate the severity of the distress caused by the adverse event (Davie, 2014).

Manifestations of stress: The stress may have physical and emotional manifestations such as somatic complaints, anxiety, depression and so on. The effects may either be global or local (Gallagher, 2012). Social support is defined as the availability of effective emotional, tangible and informational help from family, friends and neighbors when required. The support may strengthen the physical, mental and financial well-being of the person (Davaridolatabadi & Abdeyazdan, 2016). Social support can be categorized into two: Perceived Support and Received Support. Perceived Social Support can be described as an individual's confidence in potential access to people who provide social affiliation, security, love, esteem and other significant requirements. Perceived Social Support is a significant notion that conceptualized social support as a cognitive appraisal of having a stable bond with others (Barrera, 1984). Received Support indicates the reported receipt of support during a particular period or at a point in time (Uchino, 2009).

Studies show that perceived social support whether it is from the spouse, family members, friends, colleagues or the community is related to more beneficial health outcomes for individuals with different chronic illnesses (Thong et al., 2007; Uchino, 2009). Perceived social support exists as a protective shield from anxiety, depression and improves the quality of life of the individual in need (Davaridolatabadi & Abdeyazdan, 2016). Adequate social support reduces the unhealthy effects of perceived stress by tranquilizing the neuroendocrine system so that individuals display little negative reaction to perceived stress and show high adaptive behaviours (Cohen & Wills, 1985; House, 1981).

The desire for social support and the perception of availability of support may differ according to the nature of social networking and severity of the disease. Studies also proved that high social support has a vital role in decreased hospitalization, better clinical outcomes and quality of life. A supportive environment encourages the patients to adapt more positive coping strategies to adjust to the illness (Alexopoulou et al., 2016; Davaridolatabadi & Abdeyazdan, 2016). As per the availability of adequate social support the patient feels more satisfaction and meaning in life (Hatami et al., 2019). Whereas, poor social support harms treatment outcomes and the mental health of the patient. The reduced social support creates more challenges in coping as well. It weakens the positive impression of oneself and exacerbates anxiety, depression and mortality during hardship, especially in individual with chronic illness (Davaridolatabadi & Abdeyazdan, 2016).

The Stress-Buffering Model of Social Support (Cohen & Wills, 1985) conceptualizes that support buffers or defends individuals from the adverse effects of threatening or stressful conditions. Cohen and Wills discussed about four support resources: Esteem support, Informational support, Social companionship and Instrumental support. Esteem support communicates the message that the person is esteemed and accepted despite personal limits or weaknesses. Informational support is the conveyance of information regarding the current condition, in order to help the person to define, understand and cope with the problematic situations. Whereas, social companionship is spending time with others in leisure and recreational activities. This may alleviate stress by fulfilling the need for affiliation and contact with others. This also helps to divert the person from disturbing issues or to facilitate constructive moods. Instrumental support is the providing of material resources, financial assistance and required services. This kind of support diminishes stress by immediate giving of instrumental needs such as money, or by providing company and time for recreational or entertaining activities. However, all these support systems are correlated to one another (Cohen & Wills, 1985).

Patients receiving hemodialysis come across different stressors which affect the physical, mental, and social domains of their life. The stressors are inevitable. Therefore, it is essential to pay special attention to psychological and social factors which protect the patients from further deterioration. Perceived Social Support in the context of hemodialysis patients was less investigated in India. The aim of the study was to examine the level of Stress, Anxiety and Perceived Social Support among hemodialysis patients with Chronic Kidney Disease, and to assess the relationship among the three variables.

Methods

Study Design and Samples

The present research used Cross-Sectional Study Design. The study participants were selected using purposive sampling technique. The total sample consisted of 50 Hemodialysis patients with Chronic Kidney Disease selected from two private hospitals in Uttar Pradesh, India.

Inclusion and Exclusion Criteria

Certain inclusion and exclusion criteria were set prior to the selection of the participants and the eligible hemodialysis patients were selected for the current research. Accordingly, the sample comprised of Chronic Kidney Disease patients who were having maintenance hemodialysis under a nephrologist for at least 3 months, either with no comorbidities or having common comorbidities namely diabetes, hypertension and cardiovascular disease. The patients under the age bracket of 35- 55 years and having a minimum education qualification of 10th grade were included in the study. Those patients undergoing hemodialysis either for less than three months or not for Chronic Kidney Disease, currently diagnosed with any type of malignancy or cognitive dysfunctions, stroke, or encephalopathy and receiving treatment for psychiatric disorders were excluded from the study.

Research Instruments

Depression Anxiety Stress Scale (DASS-21). The 21-item Depression, Anxiety and Stress Scale was developed by Lovibond and Lovibond in 1995. It is a self-report questionnaire that is used to assess the current level of depression, anxiety and stress which are the manifestation of an individual's Psychological Distress. All three domains, namely depression, anxiety and stress have 7 items each. The responses are rated on a 4-point Likert scale ranging from 0 (Never) to 3 (Almost always). Kumar et al., 2019 standardized the scale for the Indian population and translated it into the Hindi language. The scale was found culturally appropriate, reliable and valid for the Indian population. Internal consistency, Cronbach's alpha of the Hindi version for the domains of depression, anxiety and stress were 0.998, 0.990 and 0.994 respectively. This scale has been used worldwide for research purposes.

Multidimensional Scale of Perceived Social Support (MSPSS). The 12-item self-report Multidimensional Scale of Perceived Social Support (MSPSS) was developed by Zimet et al. in 1988. In 2019, Kaur and Beri validated and standardized this scale for the Indian population and translated it to the Hindi language. Internal consistency Cronbach's α , 0.92 was obtained for the adapted and translated Indian version which demonstrated high reliability of the scale. The scale assesses the Perceived Social Support from three different domains namely, family, friends and significant person. The responses are rated on a 7-point Likert scale ranging from 1 (very strongly disagree) to 7 (very strongly agree).

Procedure

The total sample of 50 hemodialysis patients with chronic kidney disease were selected from two private hospitals in Uttar Pradesh which had fully functioning dialysis departments. Purposive sampling method was used to select the study participants. The inclusion and exclusion criteria were observed during the selection with the assistance of the Nephrologist and staffs of dialysis department. Informed consent was taken from the participants to ensure voluntary participation in the study. The socio-demographic and clinical data sheet was filled by the participants and the assessment tools were administered on them. The data obtained from the tools were encoded using Microsoft excel. Statistical Package for the Social Sciences (SPSS) version 20.0 was used to analyse the data.

The descriptive statistical tools namely, Frequency, Percentage, Mean and Standard Deviation were used to assess the level of Stress, Anxiety and Perceived Social Support among the participants. The normality of the distribution was evaluated by Kolmogorov-Smirnov and Shapiro-Wilk tests. The non-parametric test Spearman's Rank Order Correlation was applied to find the relationship between the study variables.

Results

Stress and Anxiety

Table 1.
The Level of Stress and Anxiety among Hemodialysis Patients with Chronic Kidney Disease

Variable	Normal	Mild	Moderate	Severe	Extremely Severe	Mean (SD)
Stress	3(6%)	5(10%)	6(12%)	16(32%)	20(40%)	14.46 (3.88)
Anxiety	1(2%)	9(18%)	14(28%)	13(26%)	13(26%)	8.24 (3.44)

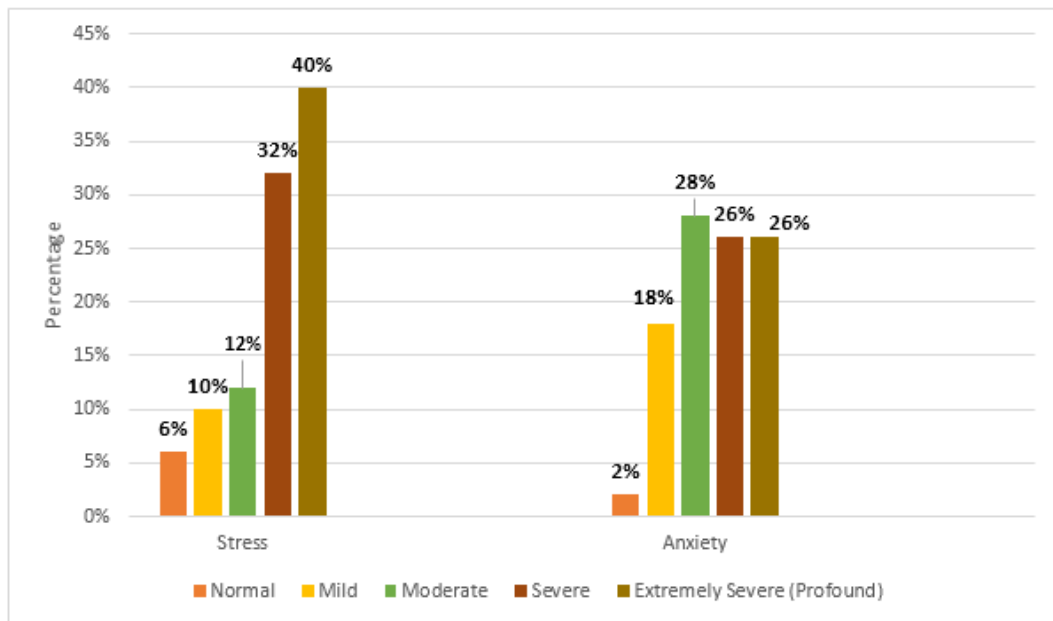


Figure 1. Graphically represents the level of Stress and Anxiety among the research participants

Regarding stress, 6% patients were having normal stress, 10% patients had mild stress, 12% patients had moderate stress, 32% patients were experiencing severe stress and 40% patients were undergoing extremely severe stress. With reference to anxiety, 2% hemodialysis patients were experiencing normal anxiety, 18% patients had mild anxiety, 28% patients had moderate anxiety, and 52% patients were experiencing severe level of anxiety. The mean and standard deviation of the dimensions of stress and anxiety were 14.46(3.88) and 8.24 (3.44) respectively.

Perceived Social Support

Table 2
Level of Perceived Social Support among Hemodialysis Patients with Chronic Kidney Disease

Variables		Low	Medium	High	Mean and SD
Perceived Social Support	Significant Person	10 (20%)	12 (24%)	28 (56%)	19.20 (7.17)
	Family	10 (20%)	15 (30%)	25 (50%)	18.92 (7.05)
	Friends	40 (80%)	6 (12%)	4 (8%)	9.12 (6.19)
	Overall Perceived Social Support	10 (20%)	27 (54%)	13 (26%)	47.24 (15.69)

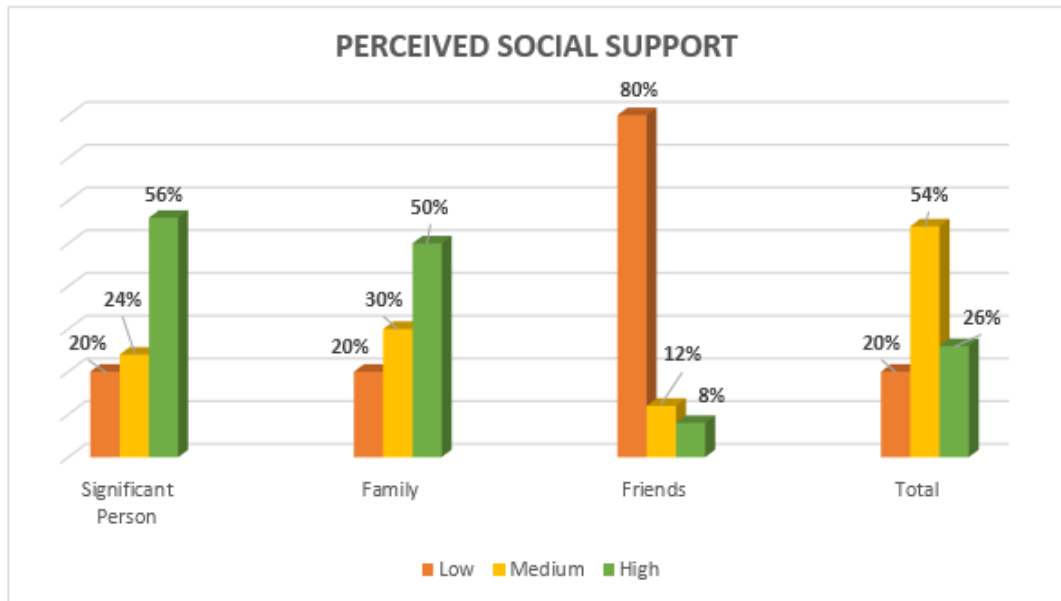


Figure 2. Graphically represents the level of Perceived Social Support among the research participants.

Regarding the perceived support from the significant persons, 20% patients perceived low level of support, 24% patients revealed moderate level of support and the remaining 12% patients reported a high level of support. Concerning support from family members, 20% patients perceived low level of support, 30%

revealed moderate level of support, and 50% patients reported a high level of support. With reference to the support available from friends, the majority of participants (80%) perceived low level of support, 12% reported a moderate level of support, and 8% revealed a high level of support. While considering the overall social support, 20% patients reported a low level of support, 54% patients perceived moderate level of support and 26% patients perceived a high level of social support. Similarly, the mean and standard deviation of the dimensions of Perceived Social Support- specifically significant person, family and friends- are 19.20 (7.71), 18.92(7.05) and 9.12 (6.19) respectively. Besides, the mean and standard deviation of overall Perceived Social Support were 47.24 and 15.69.

Table 3
The Correlation between Stress, Anxiety and Perceived Social Support among Hemodialysis Patients with Chronic Kidney Disease

Variables		Stress	Anxiety
Perceived Social Support	Significant other	-0.712**	-0.613**
	Family	-0.731**	-0.797**
	Friends	-0.806**	-0.738**
	Overall Perceived Social Support	-0.938**	-0.875**

** Correlation is significant at 0.01 level (2-tailed)

Discussion

Regarding stress, 6% patients were having normal stress, 10% patients had mild stress, 12% patients had moderate stress, 32% patients were experiencing severe stress and 40% patients were undergoing extremely severe stress (Table 1) which is in sync with a study by Shah and Chithra (2017) who reported high emotional distress among hemodialysis patients in India. A study by Jadhav and Lee in India (2014) described various physical, psychological and socioeconomic stress factors- including pain, fatigue, job loss, changes in social life and fear of potential difficulties and uncertainties about the future- in hemodialysis patients. Alexopoulou et al. (2016) reported that hemodialysis evokes stress in the patients due to the restrictions in the daily routine, dietary and occupational functioning which causes a considerable burden to the individual and the family. Another study conducted by Sathvik et al. (2008) stated that decreased occupational functioning, limited social life and diminished independence cause enormous stress in hemodialysis patients. Cabrera et al. (2017) highlighted the hemodialysis procedure itself and the required four hours of recovery time cause stress in the patients. Another study carried out by Damery et al. (2019) revealed that among the 343 patients who participated in the study, 33.3% reported mild to moderate stress. Whereas in the present research 72% of hemodialysis patients showed a severe level of stress. The research done by Niu and Liu in 2016 also reported that the patients come across several stressors due to the restrictions and lifestyle changes followed by hemodialysis. Odette Dorcas et al. (2018) have undertaken a cross-sectional study to examine the physiological and psychological stressors in patients on hemodialysis. The research findings elucidated the major physiological stressors such as fatigue (97%), arterial and venous stick (88%), and itching (49.5%). Significant psychosocial stressors included lifestyle changes, restrictions in social activities, recurrent hospitalization, lack of independence,

and uncertainty about the future. Gerogianni et al. (2014) also conducted quantitative research among hemodialysis patients in Greece to assess the psychological impacts of hemodialysis. The result indicated various problems faced by the patients. The impacts of physical and emotional problems were decreased occupational and social functioning and daily activities. The participants also reported frustration, irritability, low level of tranquillity, inability to experience pleasure, reduced leisure activities, and fatigue. Similarly, sleep problems, dietary and fluid restrictions, and difficulty going out also caused extreme stress in the patients. Rohini and Ezhilarasu (2016) conducted phenomenological research to explore the subjective experience of hemodialysis patients concerning their quality of life. Seven patients between the age ranges of 39 to 62 years participated in the study. The themes that emerged after the analysis of qualitative data were crestfallen life, support and comfort, possible mortality and unfulfilled wishes. Crestfallen life denoted the sense of rejection, disappointment and discouragement. The patients described their life as hard-pressed due to the treatment-related restrictions, financial constraints, and uncertainties. The patients were disappointed because of the abundant loss of physical well-being, occupation, social relation and wealth. They often felt lonely and extremely sad about losing active participation in society. Besides, the support and concern are given only by immediate family and spouse. The constant fear of death also accompanied the patients. Life became completely reliant on dialysis. The future was uncertain. There had many unfulfilled wishes which they were sad about. Their wishes were enlisted such as travelling long distances, earning for the family, attending family functions, and eating good food from the restaurant.

With reference to anxiety, 2% hemodialysis patients were experiencing normal anxiety, 18% patients had mild anxiety, 28% patients had moderate anxiety, and 52% patients were experiencing severe level of anxiety (Table 3 and 4.1). The current research is in agreement with the previous studies conducted among hemodialysis patients. A recent study executed in Maharashtra, India, by Vermani et al. (2020) examined the prevalence of psychiatric morbidity in patients undergoing hemodialysis and found generalized anxiety disorder in 7% of the patients. A cross-sectional study was undertaken by Kumar et al. (2018) in Rajasthan, India reported anxiety symptoms in 28% of the hemodialysis patients who participated in the study. Another study carried out by Saravanan et al. (2017) on psychiatric comorbidities in chronic kidney disease reported that among the 100 study participants 59% showed anxiety disorder. Davaridolatabadi and Abdeyazdan (2016) observed anxiety in 38% of the hemodialysis patients which results in poor health outcomes and decreased compliance to the treatment regimen. In the previous researches the prevalence of anxiety varies. Similarly, the current study also reported moderate to severe anxiety among 80% patients. This is larger than the prevalence reported in the previous literatures.

Regarding the perceived support from the significant persons, 20% patients perceived low level of support, 24% patients revealed moderate level of support and the remaining 12% patients reported a high level of support. Concerning support from family members, 20% patients perceived low level of support, 30% revealed moderate level of support, and 50% patients reported a high level of support. With reference to the support available from friends, the majority of

participants (80%) perceived low level of support, 12% reported a moderate level of support, and 8% revealed a high level of support. While considering the overall social support, 20% patients reported a low level of support, 54% patients perceived moderate level of support and 26% patients perceived a high level of social support (Table 2).

The low perceived support from friends indicates the patients' restricted and decreased social life and high dependency on their family members. For all the participants in the present study, the significant person was either spouse or any one of the family members who provided more care and support than the other members in the family. Social support from any source either from family or significant persons or society enhances the well-being of the individual and motivates the person to endure the sufferings.

A study conducted by Shahgolian and Yousefi in 2018 reported that patients expect empathy, continuous accompaniment and adequate understanding from family and society. A supportive environment encourages the patients to use more positive coping strategies to deal with the illness. The finding of Alexopoulou et al. (2016) supports the current result that the hemodialysis patients perceived high support from significant people and family but low support from friends. In a study by Davaridolatabadi et al. (2016), among the 126 hemodialysis patients, 68.3% of patients perceived the average level of support from society. The present result is also consistent with the findings of Gerogianni et al. (2016) which says that hemodialysis patients like to spend more time with family and find satisfaction from the same. Whereas, participation in society is poor among hemodialysis patients and they lack interest in it. A study conducted by Silva et al. (2016) indicated good support received by the hemodialysis patients and also referred to the family as a major source of support. The authors also pointed out the advantages of having good social support, including high satisfaction in the treatment received, increased adherence to the treatment regimen and high quality of life when compared to the patients who received low social support. Thong et al. (2007) found inconsistency between the support given and received from the family and friends. Besides, the author emphasized that lack of interest in social interaction and withdrawal from society causes emotional strain and mortality.

A recent cross-sectional study by Hatami et al. (2019) examined the impact of Perceived Social Support on the hope of 87 patients undergoing hemodialysis. The results showed a significant relationship between Perceived Social Support and hope. According to the authors, social support has a positive impact on reducing both the vulnerability to and effect of stress on the patients.

Cross-sectional research undertaken by Mistik et al. (2017) investigated the impact of Perceived Social Support on quality of life among chronic kidney disease patients receiving hemodialysis and peritoneal dialysis. 122 patients were recruited for the study. The result revealed a significant effect of Perceived Social Support on the quality life of the patients irrespective of the mode of dialysis.

Jansen et al. (2014) conducted a cross-sectional research on 166 hemodialysis patients. The study primarily revealed that the personal experience of available

social support has a major impact on the autonomy and self-esteem of the patients. In addition, the research emphasized the impact of illness perception of the individual on social support which determines the sense of autonomy of the patients. The result of the study also showed the predictability of illness perception on the positive effect of social support in the betterment of health conditions. In short, the illness perception and Perceived Social Support together determine a sense of autonomy and self-esteem of patients receiving hemodialysis.

A study undertaken by Thong et al. (2007) revealed the discrepancy between received and Perceived Social Support from family and friends in a large sample of hemodialysis patients. The research also revealed the inverse relationship between discrepancy and treatment outcome. Higher the discrepancy in the domains of social companionship and frequent emotional support, lower the treatment outcome. When the Perceived Social Support was less, the patient showed poor adherence to the treatment regimen. Inadequate social participation or social isolation leads to high comorbidity as well as mortality rate.

Table 3 displays the relationship between the dimensions of Perceived Social Support and its and stress as well as anxiety. There was significant relationship at 0.01 level of significance ($p < 0.01$). In addition, the correlation coefficient, rho was close to -1 which indicates a strong negative correlation between Perceived Social Support and Stress (-0.938) and Anxiety (-0.875). A negative correlation denotes when Perceived Social Support increases Stress and Anxiety decrease. In other words, the presence of one diminishes the effect of the other.

The result of the current study is consistent with the existing studies. Chronic kidney disease patients undergoing hemodialysis are at great risk of stress and anxiety. They encounter huge challenges because of the enormous lifestyle changes associated with the treatment regimen. Patients' life revolves around dialysis sessions, diet and fluid restriction, hospitalizations, and comorbid conditions. This follows a loss of self-esteem and hope. Hatami et al. (2019) highlighted that social support reduces the vulnerability to and effect of multiple stressors associated with hemodialysis. According to Davaridolatabadi et al. (2016), there is an inverse association between anxiety and Perceived Social Support. Indeed, affiliation to family and friends helps the patients to effectively cope with stressful situations, thus protects them from adverse consequences like anxiety and depression, and gives better clinical outcomes. The presence of supportive individuals helps the patients to share their concerns and feelings, and to find solutions to the problems come across every day.

On the other hand, if the patients experience less support from significant caregivers, family and friends, they would likely fall into severe stress and anxiety. The condition of persistent dependency on others may gradually cause hemodialysis patients to disregard the positive perception towards the support received. And it may again cause the support group to lower their care and assistance. Patients' perception of the support received, greatly influences self-care and motivation to adhere to the complex treatment regimen. Specifically, concerning Indian culture, social support and care received from family members,

sense of belongingness and wanted feeling are indeed a great motivation to survive amidst all the hardships.

One of the major limitations of the present study was sample size. The study was conducted on a small number of patients who were selected from limited geographical area specifically, two private hospitals in Uttar Pradesh, India. Therefore the result obtained from the study cannot be generalized to the entire population of hemodialysis patients having chronic kidney disease. The study was conducted during COVID-19 pandemic scenario. The influence of pandemic situation on existing stress and anxiety of hemodialysis patients was not evaluated separately. A longitudinal follow-up study may give more lucidity regarding the stress and anxiety caused by hemodialysis in chronic kidney disease patients.

Conclusion

It can be concluded from the study that hemodialysis patients suffer from severe level of Stress and Anxiety. According to the existing evidences, Perceived Social Support is an effective resource which buffers the patients from the negative effects of stress and Anxiety. It was found at a moderate level when the stress and anxiety were severe among the hemodialysis patients. The significant and strong relationship found between in the study highlights the effect of Perceived Social Support in alleviating the negative impact of enormous stressors experienced by hemodialysis patients. Thus, the current study emphasizes the need of timely Individual and family-focused psychosocial interventions to reduce the stress and anxiety and to enhance the quality of life of the hemodialysis patients. There is still a paucity of psychological researches among Hemodialysis patients in India. Researching on psychological aspects of Indian patients would help us to find the maintaining and protective factors of the disease condition and to take appropriate measures to deal with the same.

Limitations of the Study

The present study posed certain limitations as the sample size being small. Other limitations of the study were in selection of samples through purposive methods making it's generalizability limited. Future researches could be intended towards fulfilling these limitations.

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