

ORIGINAL ARTICLE

Death Anxiety in Hemodialysis Patients before and during the Outbreak of COVID-19: A Longitudinal StudySaira Javed¹, Shavana Sahar Bangash^{2*}, Nafeesa Sharf³, Bushra Samman⁴, Talha Alvi⁵**ABSTRACT****Objective:** To study the occurrence of death anxiety among hemodialysis patients before and during COVID-19.**Study Design:** Longitudinal study.**Place and Duration of Study:** The study was carried out from November 2019 to May 2020 at Pakistan Kidney Patients Association, Rawalpindi.**Materials and Methods:** Data was collected, with formal written consent, from hemodialysis patients, through convenient sampling technique in two phases. In phase I, pre COVID 19 pandemic period data of 110 subjects and in phase II, COVID 19 pandemic era, data of 83 subjects were collected. Demographic variables and death anxiety scale were used for descriptive analysis.**Results:** The study results have shown that patients, in the pre pandemic period, had mild level of death anxiety, despite having comorbid chronic illnesses like diabetes mellitus, hypertension, depression and hepatitis. However, during COVID 19 pandemic death anxiety experienced among the participants, ranged between mild to severe level.**Conclusion:** The surge in new cases of COVID-19 and deaths, together with the barrage of information to which population is submitted through media, care takers and doctors has influenced the mentality of patients, resulting into variation in death anxiety among hemodialysis patients. It is concluded that occurrence of death anxiety before and during COVID-19 influence the mental health of patients.**Key Words:** COVID-19, Death Anxiety, Hemodialysis, Mental Health.**How to cite this:** Javed S, Bangash S, Sharf N, Samman B, Alvi T. Death Anxiety in Hemodialysis Patients before and during the Outbreak of COVID-19: A Longitudinal Study. *Life and Science*. 2021; 2(4): 135-138. doi: <http://doi.org/10.37185/LnS.1.1.140>This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.**Introduction**

With the outbreak of COVID-19 which has become a global pandemic, a lot of physical and mental health issues have emerged. These physical and mental health issues have caused serious threats to individual's life, putting greater impact on those

suffering from already existing comorbid health condition including kidney diseases and other chronic diseases. Patients on hemodialysis were among those distinct people who suffered a lot during the pandemic. Despite the effectiveness of hemodialysis, the patients are exposed to multiple physical and psychological stressors, anxiety is one of them.¹ There is limited data on the prevalence of anxiety disorders in hemodialysis patients, range between 12 to 52 % in multiple studies. Anxiety disorders are closely associated to the quality of life. Moreover, anxiety both as a primary or comorbid disorder when combined with other medical and psychiatric disorder can cause complications in renal diseases.²

In the domain of mental health, anxiety related to death, especially in patients of chronic kidney disease (CKD) who are dialysis dependent. is understudied Among kidney diseases, end-stage

¹Department of Social and Behavioral Sciences
National University of Medical Sciences, Rawalpindi²Department of Behavioral Sciences
National University of Science and Technology, Islamabad³Pakistan Kidney Patients Association, Rawalpindi⁴Fatima Jinnah Women University Rawalpindi⁵Department of Medicine
Riphah International University, Islamabad**Correspondence:**

Ms. Shavana Sahar Bangash
Department of Behavioral Sciences
National University of Science and Technology, Islamabad
E-mail: shavanabangash@gmail.com

Funding Source: NIL; Conflict of Interest: NIL

Received: Aug 24, 2020; Revised: Jun 08, 2021

Accepted: Jun 29, 2021

renal disease (ESRD) lowers the quality of life and reduces the life expectancy of patients which may lead to death anxiety.³ Hemodialysis is total dependency of a person suffering from CKD on a machine for their survival which is inherent in any chronic illness, resulting in distress. Among the chronic diseases that can be studied in this context are chronic renal failure and irreversible and progressive impaired renal function. However, due to hemodialysis, their survival has increased, but the disease has already affected the quality of life and impaired their functional status in advanced stages.⁴ Death anxiety causes severe distress to the patients suffering from life threatening diseases. A study conducted in Iran on dialysis patients showed that the death anxiety was present in more than half of the patients with hemodialysis.⁵ The findings of other studies illustrated that death anxiety of patients undergoing hemodialysis was above average. The rate of renal diseases is ever increasing, and hemodialysis patients are highly susceptible to death anxiety. Its relationship with quality of life and spiritual health is of particular importance. It seems that identifying impediments to mental health, including death anxiety, in hemodialysis patients and approaches to deal with them would be an effective step towards improving every aspect of their health.⁶ In hemodialysis patients, depression and anxiety are also associated with impaired daily life, physical activities and low performance.⁶ Furthermore, the considerable degree of anxiety is related to regression where the underlying fear is the fear of death due to which more patients come for treatment.⁷ It has also been seen that the mental health of hemodialysis and peritoneal dialysis patients is thought to be impacted to a greater extent as compared to the transplantation patients because of the strict routine of dialysis sessions, along with many other restrictions that limit their active participation in social, familial and daily life activities.⁸

With the outbreak of COVID-19 pandemic multiple mental health issues emerged which were totally neglected as the researchers were more focused in developing anti-virus vaccines. Patients suffering from comorbid disease both mental and physical, were among those who were affected more during the pandemic.⁹ Furthermore, COVID-19 resulted in

deaths on daily basis. Some of the previous researches have shown that pandemics (Ebola, swine flu) have increased death related thoughts and defensive behavior in patients and this is also comparable to the current pandemic.¹⁰⁻¹² The excessive thoughts of death, causes stress and anxiety among patients already suffering from any type of mental and physical diseases. In a study conducted on CRF patients, it was revealed that nearly half of the patients had moderate death anxiety, 27.4% respondents experienced low death anxiety, and 24.7% respondents experienced high death anxiety which implies that death anxiety of CRF patients undergoing hemodialysis should be given proper attention and managed.¹³ Death is recognized as an inevitable part of life, and many people tend to avoid thinking or talking about it out of fear and the finality of their existence on this earth. Diagnosis of an acute/chronic disease and hospitalization due to the disease may arouse many different feelings for patients.¹⁴ While talking about the anxiety related to COVID-19, it is important to understand the causal role of fear of death in many other health issues.¹⁵ The current study aims to explain the occurrence of death anxiety in hemodialysis patients.

Materials and Methods

The study design was cross sectional, longitudinal. Written formal consent was taken before data collection from respondents. Sample was collected through convenient sampling technique in two phases from December 2019 to May 2020 at Pakistan Kidney Patients Association, Rawalpindi. In phase I, data was collected from 110 patients before the outbreak of COVID 19. In phase II data from 83 patients was collected during COVID 19 pandemic. Demographic sheet along with death anxiety scale developed by Templer in 1970 was used. In phase II 17 patients dropped out (6 died, 4 left PKPA, 7 refused to give data).

Results

Characteristics of Hemodialysis Patients

Result of the present study reveals that hemodialysis patient before outbreak of COVID 19, fall under the category of mild level of death anxiety despite having other comorbid chronic illnesses like diabetes mellitus, hypertension, depression and hepatitis (Fig 1).

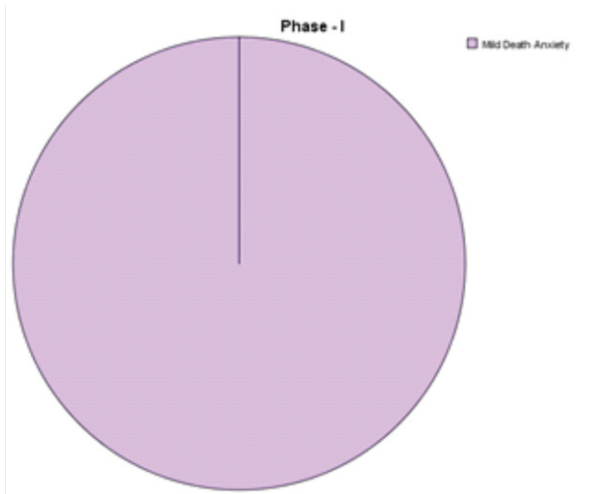


Fig 1: Occurrence of Death Anxiety among Hemodialysis Patients before Outbreak of COVID-19

Whereas occurrence of death anxiety among hemodialysis patients during COVID 19 experienced mild to severe level of death anxiety during COVID 19 (Fig 2).

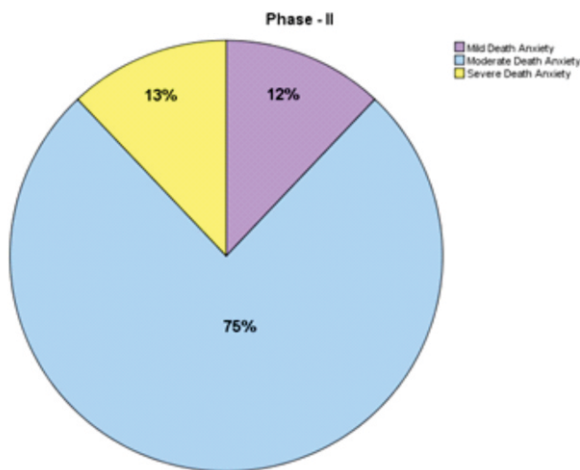


Fig 2: Occurrence of Death Anxiety among Hemodialysis Patients during COVID-19

Discussion

Hemodialysis is a one of the leading causes of death anxiety due to the strict routine of dialysis sessions and increases dependency of patients on it. Pakistan has around 16000 new cases of hemodialysis each year.¹⁶ Studying the effects of such chronic disease on the psychological health of the patient is necessary for the treatment and management of the patients. Previous studies done in Pakistan and worldwide show a positive relation among hemodialysis and the anxiety among patients related to mortality. The present research also correlates with the results of

Table 1: Demographic Features of Hemodialysis Patients (N=110)

Variables	Frequency	%
Gender		
Male	82	74.55
Female	28	25.45
Qualification		
Illiterate	18	16.36
Primary	7	6.36
Secondary	8	7.27
Matric	14	12.72
Graduation	51	46.36
Masters and above	12	10.91
Marital Status		
Married	53	48.18
Single	23	20.91
Divorced	15	13.63
Widowed	19	17.27
Any Other Physical Aliment		
Yes	89	80.91
No	21	19.09

previous literature which state the amount of anxiety generally being high in patients along with death anxiety specifically. Kidney diseases, especially ESRD lowers the quality of life¹⁷ and reduces their life expectancy which may lead to death anxiety as it is the total dependency of a person suffering from CKD on a machine for their survival.³ While we were looking at the occurrence of death anxiety in hemodialysis patients before and after the COVID-19 pandemic, it was observed that death anxiety was increased among the patients of hemodialysis after pandemic.

The management of CKD patients was more challenging during the COVID-19 pandemic due to multiple factors. One of the reasons might be the comorbid condition from which they were suffering which made their condition worst. Furthermore, people with weak immunity were also at the risk of not being able to manage their condition which might increase the death related thoughts, eventually death anxiety.¹⁷ The other reasons, why this population is at risk, might be that there are more people suffering from chronic kidney disease besides other diseases. Also, hemodialysis patients have the mobility constrains i.e. routine check-up and travelling for their dialysis session, which are increased during the lockdown. Access to the health care facilities during the lockdown was also a challenge for the patients suffering from hemodialysis which was somewhere contributing to their increased thoughts of death and death related anxiety.¹⁸

Keeping in view the above discussion on the increased death anxiety among the hemodialysis patients, it is somehow clear that the pandemic has affected the whole world including Pakistan, especially those suffering from chronic illnesses and other comorbidities. Multiple factors are identified by different researches mention above but still more research work is needed for further clarification and in-depth findings.

Future researches on planning interventions are required by the health care system and health care providers (doctors, psychiatrists and psychologists) to help the hemodialysis patients in managing their disease and related mental health conditions. Educating people about the most frequent adverse psychological consequences, encouraging health-promoting behaviors and making them learn problem solving skills can end up in giving useful data. Empowering the patients and their families can also be a positive step in dealing with their illness. Furthermore, training the health care provider to deal with the patients suffering from chronic illness and also with other comorbid conditions can be helpful for the treatment and management of CKD.

REFERENCES

1. Sadeghi H, Saeedi M, Rahzani K, Esfandiary A. The relationship between social support and death anxiety in hemodialysis patients. *Iranian Journal of Psychiatric Nursing*. 2015; 2: 36-48.
2. Javed S, Kiani S, Siddiqa U, Saeed A. Haemodialysis patients: Depression, perception of seriousness of illness, adherence to treatment and quality of life. *Pakistan Armed Forces Medical Journal*. 2019; 69: 876-1.
3. Martin CR, Thompson DR. Prediction of quality of life in patients with end-stage renal disease. *British Journal of Health Psychology*. 2015; 5: 41-55.
4. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.678.7079&rep=rep1&type=pdf>
5. Fathi M, Sanagoo A, Jouybari L, Yazarloo M, Sharif Nia H. Death Anxiety in Hemodialysis Patients Admitted to Panj-Azar Teaching Hospital. *Death Anxiety in Hemodialysis Patients Admitted to Panj-Azar Teaching Hospital*. 2016; 12: 48-55.
6. Zhang M, Kim JC, Li Y, Shapiro BB, Porszasz J, Bross R, et al. Relation between anxiety, depression, and physical activity and performance in maintenance hemodialysis patients. *Journal of Renal Nutrition*. 2014; 24: 252-60.
7. Levey AS, Eckardt KU, Tsukamoto Y, Levin A, Coresh J, Rossert J, et al. Definition and classification of chronic kidney disease: a position statement from Kidney Disease: Improving Global Outcomes (KDIGO). *Kidney international*. 2005; 67: 2089-100.
8. Brito DC, Machado EL, Reis IA, Carmo LP, Cherchiglia ML. Depression and anxiety among patients undergoing dialysis and kidney transplantation: a cross-sectional study. *Sao Paulo Medical Journal*. 2019; 137: 137-47.
9. Banerjee D. The COVID-19 outbreak: Crucial role the psychiatrists can play. *Asian journal of psychiatry*. 2020; 50: 102014.
10. Arrowood RB, Cox CR, Kersten M, Routledge C, Shelton JT, Hood Jr RW. Ebola salience, death-thought accessibility, and worldview defense: A terror management theory perspective. *Death Studies*. 2017; 41: 585-91.
11. Bélanger JJ, Faber T, Gelfand MJ. Supersize my identity: When thoughts of contracting swine flu boost one's patriotic identity. *Journal of Applied Social Psychology*. 2013; 43: 153-5.
12. Van Tongeren DR, Hook JN, Davis DE, Aten J, Davis EB. Ebola as an existential threat? Experimentally primed Ebola reminders intensify national-security concerns among extrinsically religious individuals. *Journal of Psychology & Theology*. 2016; 44: 133-141.
13. Dewina A, Emaliyawati E, Praptiwi A. Death Anxiety Level among Patients with Chronic Renal Failure Undergoing Hemodialysis. *Journal of Nursing Care*. 2018; 1: 1-7.
14. Hintistan S, Cilingir D, Pekmezci H. Assessment of death anxiety among medical and surgery clinics patients of a teaching hospital. *JPMA. The Journal of the Pakistan Medical Association*. 2016; 66: 823-8.
15. Menzies RE, Menzies RG. Death anxiety in the time of COVID-19: theoretical explanations and clinical implications. *The Cognitive Behaviour Therapist*. 2020; 13: e19.
16. Hamid A, Dhrolia MF, Qureshi R, Imtiaz S, Ahmad A. Clinical characteristics of patients on long-term hemodialysis. *Journal of the College of Physicians and Surgeons Pakistan*. 2019; 29: 328-32.
17. Alberici F, Delbarba E, Manenti C, Econimo L, Valerio F, Pola A, et al. Management of patients on dialysis and with kidney transplant during SARS-COV-2 (COVID-19) pandemic in Brescia, Italy. *Kidney International Reports*. 2020.
18. Wang H. Maintenance Hemodialysis and Coronavirus Disease 2019 (COVID-19): Saving Lives with Caution, Care, and Courage. *Kidney Medicine*. 2020.