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"A Systemic Review Of The Quality Of Life Of The PatientUndergoing Haemodialysis."

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Abstract

BACKGROUND : End stage renal failure is a chronic disease that exerts a great negative impact on patients' health-related quality of life mainly due to the accompanied impairment or to the imposed limitations in almost all domains of their daily lives..

Hemodialysis consists a complex procedure for patients that requires frequent hospital or dialysis centers visits, mainly three times a week, thus implying substantial changes in the normal way of patients' living..
Assessment of health-related quality of life is a predictive indicator of the outcome of the disease as well as a valuable research tool in assessing the effectiveness of therapeutic intervention, patients' survival and hospitalizations.
The **aim** of the present study was to explore the quality of life of Hemodialysis patients

AIM : The aim of this study is to critically assess the quality of life Of the patient undergoing haemodialysis in a selected hospital D.Y.Patil Hospital.

METHOD : A comprehensive research search for primary research articles was conducted using the Medline and Pubmed, Medscape, Cochrane and Google scholar database, researchgate using keywords, "Haemodialysis", "Quality of life" was entered into a search engine. A number of highly perfinent Papers relevant to the aimsof review where identified , only those papers which satisfied the inclusive criteria, were selected for inclusion in this review.

DISCUSSION: In the study all the reviews were able to produce significant results with regard to quality of life of patients undergoing haemodialysis in selected D.Y.Patil Hospital. Several quality of life where assist in reviews like demographic data, physical, psychological domain, occupation etc.Data were collected by completion of specially

designed questionnaire which apart from sociio-demographic and clinical variables it also included Missoula, Vitas QOL Idex (MVQOLI) for assessing QOL.

CONCLUSION: The study expanded knowledge about important aspects of nursing care; nurses to assist quality of life of patient undergoing haemodialysis. This knowledge can be used by health professionals to guide clinical practice and improve quality of care. There are convincing evidence to suggest that specific interventions can be employed to improve quality of life of the patient undergoing haemodialysis.

INTRODUCTION

Modern societies include increasing proportions of elderly people, with a resulting increase in the incidence and duration of chronic illnesses. Similarly, advanced age is considered a significant determinant of depression and poor quality of life (QoL) Additionally, the provision of therapies relevant to chronic diseases addresses the issues beyond the concept of cure, bringing to the center the need for a dignified QoL of patients . An increased interest in QoL is observed in patients who suffer from chronic diseases, including those with end-stage renal disease

Regarding patients either in hemodialysis (HD) or continuous ambulatory peritoneal dialysis (CAPD/PD) treatment modalities, the QoL differences reported in the relevant literature, are inconclusive Generally, studies that examined generic QoL, have indicated that although global QoL levels are comparable between the two treatment categories, there are treatment-related differences in dialysis-specific aspects of QoL, with some domains better for HD and others better for PD group. For example, HD patients have reported higher scores in measurements of physical well- being , including better sleep and sexual life Such evidence was seen in the first two years of dialysis and over a period of time] However, findings are mixed. Sleeping problems and distress during the night, before the dialysis, have been indicated by HD patients]. On the other hand, compromised physical well-being in CAPD patients has been reported in connection with lower levels of albumin and health complications, e.g., peritonitis

Regarding mental health, HD are reported to present more depressive symptoms than PD patients. Depression could be linked to the HD treatment requiring continuous connection with the hemodialysis machine and the patients experiencing serious restrictions on their level of independence . The rate of suicidal attempts in HD group is high, while a considerable number of deaths caused by dietary violations, may be also linked to suicide commitment Furthermore, HD patients are reported to face psychosocial problems, e.g., conflictuous interactions with their medical carers. Such findings can be attributed to the stressful conditions in the HD treatment modality, with frequent visits and prolonged waiting time in the HD unit

It appears that psychological indicators tend to favor PD patients. This can be due to the PD treatment offering increased autonomy and control, flexibility in everyday life and reduction of dietary and social restrictions . Specifically, PD group has indicated better

QoL ratings in 'perceived ability to travel', 'financial concerns', 'restriction in eating and drinking' and 'dialysis access problems' Further on, PD patients have indicated more positive ratings in several kidney-disease QoL domains, e.g., kidney disease burden and encouragement satisfaction with medical care .
In overall, end-stage renal disease patients have to cope with many adversities, like physical symptoms, special diet schedules, changes in their body image while the outcome of treatment is not standard They also have to reconsider their personal, social and professional goals within the context of living with chronic illness. End- stage renal disease is considered to have serious effects on the patients' QoL and may affect negatively the social, financial and psychological aspects of their life .
The purpose of this study is to examine differences in QoL YEAR 2020

NEED FOR THE STUDY

1) knowledge regarding the quality of life of patient undergoing hemodialysis should be a part of nursing profession. By associate professor Nursing Department Technologial Education Institude of Athens states that - according to the study result, most of the patient considered the QOL as good(48.6%) while the 8.5% described it as bad or very bad.The lowest satisfaction rates associated with issues of physical health and independent with mean(12.89+/-2.23) and the highest with social relation (14.68+/-1.50).It concluded that the pateIent on dialysis were not having adequate QOLin all domain.

2) Research Scholar and Departement of Nursing and Saveetha Institute of Medical and Technical Science(Chennai)- state that according to the study most of the parient considered low social support scale and quality of social interaction. However, role limitation caused by physical health problem, role limitation caused by emotional health and burden of kidney diease scale lowest scale. These study concluded that patients on dialysis were not having adequate QOL in all domain except patient satisfaction due to change in the psychological, chemical changes may occur in the kidney.

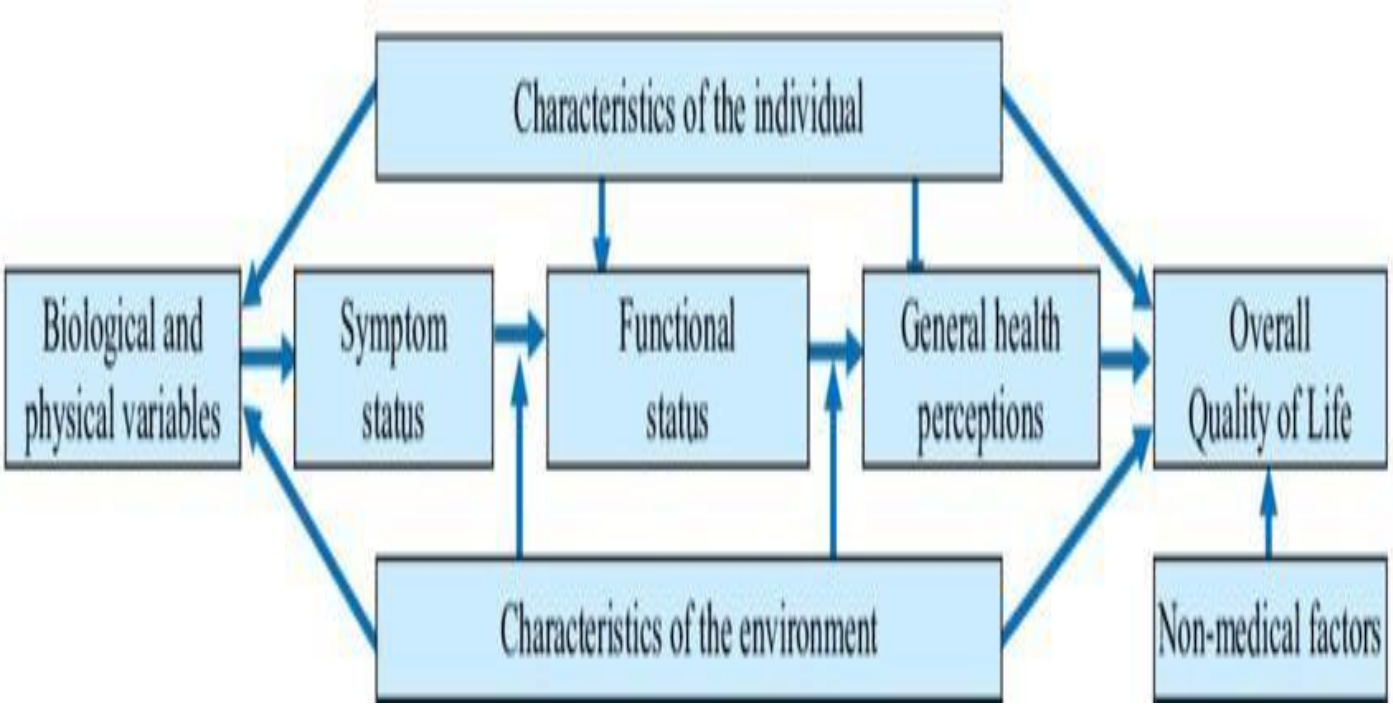
3) So as student of 3rd year BSc nursing we felt to do this study research because it is important to know the quality of life of each patient undergoing hemodialysis.

CONCEPTUAL FRAMEWORK

Conceptual framework Act as a building block for the research study. The overall performance purpose of framework is to make scientific finding meaningful and generalized.

The conceptual framework selected for the selected for the study will be based on the version of WILSON and CLEARY's (1995). Model for QOL (Ferrari's,et,2005) was used to guide the study.

According to this model, there are 4 main determinants of overall QOL-Health and functioning domain, socio-economic domain, psychological/ spiritual domain, family domain.



RESEARCH METHODOLOGY

A) Research design -

- The research design is the conceptual structure on the basis of which the research will beconducted.
- The empirical survey is used in this study.
- The research design will be non experimental design which is going to used in this study.

B) Research approach- Quality sampling technique.

INCLUSION CRITERIA

➢ Primary studies were included if they met the following criteria:

➢ Researches published in English language between 2010 and 2020;

➢ Studies which are conducted to assess the QOL of the patient undergoing hemodialysis.

- ➢ Studies with comprehensible result were reported.
- ➢ Studies done on hospitalized patents.EXCLUSION CRITERIA
- ➢ Studies published before 2010.

Data Extraction

The data pertaining to each article was extracted by title, the corresponding author's name, study year, study setting, sample size, the QOL of patients under going hemodialysis.
hospitalized patients and study method.
Articles identified through electronic database search (n= 500)
Articles relatively relevant to the topic and studies included in this study (n=11)

Data Synthesis

A narrative synthesis was carried out. Meta-analysis of the data was not feasible for this review because of heterogeneity in the study designs, patent populations, risk factors descriptors and outcomes reported. As the main aim was to identify the prevalence and associated factors for thedevelopment of pressure ulcer rather than quantify the data.

REVIEW OF LITERATURE

1. To estimate the empirical evidence of the quality of life of the patient under goinghaemodialysis

Sr. No	Author	Design	Sample	Year Of Study	Result
1	Nephro dial transplant journal	Qualitative research	134 patients	2016	Mean PCS was 36.9+/-8.8 and mean MCS was 47+/-10.7. Compared to the general US population, these represent a decline of 8.7+/-0.8 for PCS (P<0.0001) and 2.7+/-0.8 for MCS (P<0.001). PCS and MCS in end-stage renal disease (ESRD) were lower than in most other chronic diseases studied. Univariate correlators of PCS in haemodialysis patients included age, male sex, haematocrit, serum albumin, and severity of comorbid cardiac and pulmonary illnesses. Multivariate analysis demonstrated independent correlators of PCS to be male sex, serum albumin and severity of comorbid cardiacand pulmonary diseases. Univariate as well as multivariate correlators of MCS included: serumalbumin, KT/V(urea), and status living alone. A trend analysis revealed that both PCS and MCS tended to decline in the initial months of dialysisbut stabilized over time. Status living alone was a significant predictor of improvement in MCS by univariate as well as multivariate analysis.
2	Journal of ren alnutrition	DescriptiveQualitative Research	155	2012	Patients' mean age was 56 ± standard deviation of 16 years; dialysis vintage, 55 ± 48 months; 46% were female. The data confirmed a high prevalence of anxiety and depression in MD patients. Many MD patients become anxious, often severely, by merely going for routine hemodialysis treatment and also owing to such common events as being connected to the hemodialyzer by a new person or on hearingtheir hemodialyzer alarm sound.

2. To identify each domain of quality of life and functioning domain I.e physical function,occupation depression, general health.

Sr. No	Author	Design	Sample	Year Of Study	Result
1	Fatin Hapsah Afifah, Intansari Nurjannah, Er yYanuar Akhmad Budi Sunaryo	descriptive quantitative cross-sectional research.	72 patients	March 2017	The majority of respondents (51.39%) experienced moderate pain, followed by mild pain (33.33%) and severe pain (15.28%). The most painful characteristic inthe provocation aspect was movement (87.50%), and the quality of pain was knife-like pain (83.33%). Moreover, hand was the major area of pain (84.72%), and there was no radiation of pain (91.67%). Most of pain was intermittent (97.22%). Of 53% of respondents expressed that the pain had an impact on their lives, specifically in their activities (52.63%), followed by others (15.79%), nausea/vomiting (15.79%), sleep disturbance (13.16%), and appetite (13.16%). However,the pain did not have an impact on their emotion. respondents felt the impacts of the pain in their lives.
2	**Articlesin PMC**	Descriptive qualitative research	96 patients	March 2014	A total of 96 patients were enrolled (55 males, age 48±14 years). Depression and excessive daytime sleepiness were observed in 42.7% and 49% of the patients, respectively. When comparing variables amongthe three dialysis shifts, there were no differences in age, dialysis vintage, employment status, excessive daytime sleepiness, hemoglobin, phosphorus levels, or albumin levels. Patients in the morning shift were more likely to live in rural areas ($p<0.0001$), although patientsin rural areas did not have a higher prevalence of depression ($p=0.30$). Patients with depression were more likely to be dialyzed during the morning shift ($p=0.008$). Independent risk factors for depression were age ($p<0.03$), lower levels of hemoglobin ($p<0.01$) and phosphorus ($p<0.01$), and dialysis during the morning shift ($p=0.0009$). The hospitalization risk of depressive patients was 4.5 times higher than that of nondepressive patients ($p<0.008$).

3	Internati o-nal journal of	descriptive qualitative cross-sectional	96 patients	October 2018	the original POSs to assess the presence and distress of 15 symptoms in patients with advanced cancer over the past 3 days. In 2009, Murphy et al. [22] modified the POSs in patients with advanced kidney disease by

	Nursing Science	research.			adding two symptoms specific to renal disease (itching and restless legs) and to formulate the 17-item POSs-renal. Each symptom is scored on a 5-point Likert scale ranging from 1 (not at all bothersome) to 5 (very bothersome), and the questionnaire provides open fields to give patients an opportunity to indicate other symptoms that are not included in the scale.
4	INDIAN JOURN AL OF NEPHR OLOGY	Qualitative research	75 patients	2018	The demographic details of the hemodialysis patients (n = 75), renal transplant (n = 39), asthma patients (n = 35), and healthy individuals from the general population(n = 300) are presented in Table 1. Table 2 shows the clinical laboratory parameters of hemodialysis and renal transplant patients at the time of inclusion.
5	Nephro dial transplant journal	Descrptive qualitative research	134 patients	2016	Mean PCS was 36.9+/-8.8 and mean MCS was 47+/-10.7. Compared to the general US population, these represent a decline of 8.7+/-0.8 for PCS (P<0.0001) and 2.7+/-0.8 for MCS (P<0.001). PCS and MCS in end-stage renal disease (ESRD) were lower than in most other chronic diseases studied. Univariate correlators of PCS in haemodialysis patients included age, male sex, haematocrit, serum albumin, and severity of comorbid cardiac and pulmonary illnesses. Multivariate analysis demonstrated independent correlators of PCS to be malesex, serum albumin and severity of comorbid cardiac and pulmonary diseases. Univariate as well as multivariate correlators of MCS included: serum albumin, KT/V(urea), and status living alone. A trend analysis revealed that both PCS and MCS tended to decline in the initial months of dialysis but stabilized over time. Status living alone was a significant predictorof improvement in MCS by univariate as well as multivariate analysis.
6	Honarm and M,	Descrptive qualitative research	30	Febru ary 2017	The mean salivary urea level and pH value in the patientgroup were significantly higher compared to those of the control group (P<0.05), but there were no significantdifferences between the two groups with

					respect to salivary calcium. Halitosis, xerostomia, and increased calculus were the most prevalent manifestations, and gum bleeding was the least prevalent among the patients.
7	Journal of renal nutrition	Descrptive qualitative research	155	2012	Patients' mean age was 56 ± standard deviation of 16 years; dialysis vintage, 55 ± 48 months; 46% were female. The data confirmed a high prevalence of anxiety and depression in MD patients. Many MD patients
					become anxious, often severely, by merely going for routine hemodialysis treatment and also owing to such common events as being connected to the hemodialyzer by a new person or on hearing their hemodialyzer alarm sound.

Appraisal of Studies:-

Study Design

Out of 9 studies included in the review, it includes 2 Qualitative research , 5 Descriptive Qualitative Research, 1 descriptive quantitative cross- sectional research, and 1 descriptive qualitative cross- sectional research. All these 9 studies addressed the assess the QOL of the patients undergoing hemodialysis and to identify each domain of quality of life and functioning domain I.e physical function, occupation depression, general health.

Sample

Total sample of all 9 studies covered almost 947. The authors state that descriptions of study participants' characteristics and setting in which they were studied are necessary so that readers can assess generalizability of the results of the study. The authors also explain that description of sample selection and size helps the readers to detect internal validity associatedwith ascertaining statistically significant and clinically important differences of a given size ifsuch differences exist.

Data Collection

Relevant data for the selected studies were collected from different databases like NCBI,PubMed, Researchgate.net, Google scholar, and database library.

Results

We included 9 articles in this review for the quality of life of the patients undergoing hemodialysis and the domains affected in hemodialysis. One study showed the high evidence of anxiety and depression in patients. Many patients become anxious, often severely, by merely going for routine hemodialysis treatment and also owing to such common events as being connected to the hemodialyzer by a new person or on hearing their hemodialyzer alarm sound. The most common domains that were affected were. One study reported that the mean salivary urea level and pH value in the patient group were significantly higher compared to those of the control group ($P<0.05$), but there were no significant differences between the two groups with respect to salivary calcium. Halitosis, xerostomia, and increased calculus were the most prevalent manifestations, and gum bleeding was the least prevalent among the patients.

DISCUSSION

The systematic review of learning literature in this study revolves around two important aspects- the QOL of patients undergoing hemodialysis and the domains that are affected.

In the above review it was noted that self assessed physical and mental health of haemodialysis patients is markely diminished compared to the general population and other chronic diseases.

It was observed that Anxiety and depression are common in MD patients. Many patients who are well established on MD experience anxiety during individual maintenance hemodialysis treatments.

The respondents experienced mostly moderate pain. The percentage of pain characteristics on PQRST mnemonic was above 80%, and more than half of the respondents experienced moderate pain. Majority of the respondents felt the impacts of the pain in their lives.

These data suggest that depression is associated with dialysis shift, higher levels of phosphorus, and lower levels of hemoglobin. The results highlight the need for randomized trials to determine whether this association occurs by chance or whether circadian rhythm disorders may play a role.

POSs-renal has been used widely for patients undergoing dialysis, but studies have yet to establish its reliability or validity.

The results of this study suggest that the QOL of hemodialysis patients is considerably impaired compared to that of the healthy subjects, especially with respect to the physical, psychological and social relationship domains. Renal transplant patients have better QOL in all the four dimensions of the WHOQOL-BREF compared to hemodialysis patients.self assessed physical and mental health of haemodialysis patients is markely diminished compared to the general population and other chronic diseases.

The mean salivary urea level and pH value in the patient group were significantly higher compared to those of the control group ($P<0.05$), but there were no significant differences between the two groups with respect to salivary calcium. Halitosis, xerostomia, and increasedcalculus were the most prevalent manifestations, and gum bleeding was the least prevalent among the patients.

Anxiety and depression are common in MD patients. Many patients who are well established on MD experience anxiety during individual maintenance hemodialysis treatments.

CONCLUSION

The evidence of post hemodialysis effect and other dimensions of psychological aspects is consistently high. The most common factors like Halitosis, xerostomia, and increased calculus were the most prevalent manifestations, and gum bleeding was the least prevalent among the patients. Also the psychological dimensions included factors such as depression, anxiety,etc. These data indicate the continued need for further resource allocation into QOL of patients undergoing hemodialysis.

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