Perceived Health Status of Hemodialysis Patients in Makati City: Basis for Patient-Centered Health Management Program

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Abstract:

Perceived Health Status reflects the overall perception of their health, including physical, psychological, emotional, and social dimensions. Watson's model was used in this study. It is focused on both health promotion and disease treatment. Caring is at the core of the nursing profession, and patients and their health status must be cared for as a dynamic body and mind unit. The Kidney Disease Health status was adapted and partially modified. The respondents were hemodialysis patients undergoing regular treatment in selected dialysis centers in Makati and a total of 71 respondents participated in the study. Perceived health status was examined in terms of physical, psychological, social, and functional dimensions.

Based on the findings, a Health Management Program was created to improve the health status of hemodialysis patients. Overall, a Health Management Program will help promote and improve the health status of hemodialysis patients, since hemodialysis alone does not determine their Health status. Hemodialysis impacts the patient's response. Several factors, including individual features, prior experience, and coping techniques, influence this. Each factor influences health status distinctly.

Given the profile results and the extent of the effect on health status among hemodialysis patients, the medical institution must verify the areas that pose challenges for medical staff and personnel in providing quality healthcare to hemodialysis patients. These patients and their caregivers are at-risk groups for developing physical and psychological symptoms. To uplift the healthcare of patients, dialysis staff should encourage them to be as independent as possible. This should be extended to dialysis staff, as their experiences will be one of the bases of patients coping with their kidney disease, for it is concluded that younger patients with CKD have a higher level of physical functioning as compared to the older patients. Furthermore, CKD patients with a higher health status have a lower level of depression. It was best to consider using other medical evaluation tools to further evaluate Hemodialysis Patients in search of a better and faster health status improvement. A replicate study can be performed by future researchers in their locality (department) to further verify the profile's result and the extent of the effect on the health status among hemodialysis patients. The importance and the necessity of socialization, education, and psychological support for patients, their families, and their caregivers, according to the needs of patients. The promotion of health programs concerning patients with chronic kidney disease should enhance their confidence and focus on mental health issues that concern them (i.e., depression, anxiety, and suicide ideation). Counseling programs would benefit dialysis staff since they would raise their awareness and promote their biopsychosocial approach toward patients. The proposed health management program may be implemented in the future.

Keywords: *Perceived Health Status, Hemodialysis, Hemodialysis Patients, Health Management Program, Health status*

Introduction:

Many people today experience kidney issues, often leading to kidney failure, which typically develops gradually and is not immediately apparent. The symptoms often appear late in the progression of the disease. Common causes of kidney failure include diabetes and hypertension. This condition can significantly impact patients both physically and mentally, as hemodialysis is a lifelong treatment. Psychological effects can include anxiety, fatigue, depression, reduced health status, and an increased risk of suicide.

According to Ravindran, A. et al., 2020, Renal failure is a chronic disease that can seriously affect Health Status. Health Status represents the physical, psychological, and social domains of health.

The relationship between healthcare providers and patients is a unique and essential interaction. It involves effective communication, active listening, and emotional engagement from both sides. The behavior of those involved shapes the therapeutic relationship. This relationship thrives on effective communication, empathy from the nurse, and active participation from the patient. Ultimately, the quality of this relationship is the most critical factor in determining the effectiveness of care.

The Health Management Program for Hemodialysis Patients aims to empower patients, medical staff, and personnel to fulfill strategic goals, ensure quality outcomes, and meet regulatory requirements.

Health care for hemodialysis patients is important to the community and families, the patients themselves, and the healthcare professionals. However, despite this, gaps still exist in the previous research done in this area of study:

- Implementing Holistic Care: Even though holistic care is a necessity, and there is wide recognition of its importance, a full study about effective holistic intervention to help improve wellness among patients who undergo hemodialysis is generally rare.
- Tailored Health Education Programs: Studies in progress do not focus on the development and implementation of tailored health education programs for hemodialysis patients. More research must be conducted on the best content and

delivery approach to equip the patient with adequate knowledge of his or her disease, treatment, and self-care.

- Anxiety and Mental Health: The psychological factors of hemodialysis are woefully understudied, and the incidence of anxiety and other mental health disorders in such patients needs to be identified, along with interventions that could help mitigate such conditions.
- Family and Community Support: There are very few studies that describe the role of family and community support in the care of hemodialysis patients. It would be possible to conduct some research on how these social networks affect patient health outcomes and overall satisfaction with treatment.
- Self-Care: The self-care practices of patients who are going through hemodialysis need to be studied closely. It should also understand the outcome of such self-care practice on the health status of the patients. It brings out a study of barriers that hinder effective practice of self-care and strategies for improving patient engagement.
- Interdisciplinary Team Dynamics: Research in team dynamics in care teams and the effect that effective communication among healthcare providers has on patient care is very thin. This could provide an avenue for improvement in delivering care.

All these research areas will be beneficial to garner a better understanding of the health status of a hemodialysis patient and inform the development of interventions that are likely to improve the care and well-being of a patient.

Methods:

- A Quantitative Descriptive Research method was employed to assess the health status of hemodialysis patients. It's essential to design the research carefully to ensure the validity and reliability of the results.
- The study aimed to identify the perceived health status of hemodialysis patients in Makati City. Convenience sampling was utilized to collect data from easily accessible locations. Since not all hemodialysis centers allowed interviews, only those respondents who consented to participate through face-to-face interviews or Google Forms were included.

- The respondents consisted of patients receiving hemodialysis at both public and private centers in Makati City. Eligible participants were those who had been undergoing hemodialysis for over six weeks, were between 20 and 55 years old, understood either English or Tagalog, and were willing to take part in the study. Patients with psychiatric disorders, altered consciousness, or severe illness were excluded. Some respondents were referred by the administrators of the hemodialysis centers.
- Data were collected using a self-assessment questionnaire that included demographic information such as age, gender, and the type of institution providing treatment. The questionnaire also covered the patients' health status, the burden of kidney disease, associated symptoms and challenges, and the overall impact of kidney disease on daily life.
- The Kidney Disease Health Status questionnaire, developed by Ronald D. Hays, served as the foundation for the survey. All surveys and tools used in the study are publicly available at no charge for non-commercial purposes, and the questionnaire was adapted and partially modified for this research.

Results:

1. DEMOGRAPHIC DATA OF THE RESPONDENTS

Table 1. Frequency Count and Percentage Distribution of the Respondents

Age Group	Frequency	Percent
21-25 years old	4	5.6%
26-30 years old	14	19.7%
31-35 years old	16	22.5%
36-40 years old	17	23.9%
41-45 years old	8	11.3%
46-50 years old	7	9.9%
51-55 years old	5	7.0%
TOTAL	**71**	**100%**
Gender	**Frequency**	**Percent**
Female	38	53.5%
Male	33	46.5%
TOTAL	**71**	**100%**
Type of Institution	**Frequency**	**Percent**
Private	43	60.6%
Public	28	39.4%
TOTAL	**71**	**100%**

2. HEALTH DATA OF RESPONDENTS ACCORDING TO SYMPTOMS, EFFECTS OF KIDNEY DISEASE, BURDEN OF KIDNEY DISEASE, COGNITIVE FUNCTION, QUALITY OF SOCIAL INTERACTION, AND SLEEP

Table 2. Health Data of Respondents according to Symptoms, Effects of Kidney Disease, Burden of Kidney Disease, Cognitive Function, Quality of Social Interaction, and Sleep

Symptom/Problem List	W.M.	S.D.	Verbal Interpretation
Chest Pains	3.24	0.85	Mildly Felt
Cramps	3.17	0.85	Mildly Felt
Faint/Dizziness	3.18	0.88	Mildly Felt
Numbness on hands and feet	3.35	0.83	Not Felt at all
Nausea or upset stomach	3.41	0.80	Not Felt at all
OVERALL W.M.	**3.27**	**0.77**	**Not Felt at all**

Table 3. Mean and Standard Deviation of the Respondents according to the Effects of Kidney Disease

Effects of Kidney Disease	W.M.	S.D.	Verbal Interpretation
Fluid restriction	1.56	0.82	Extremely Felt
Dietary restriction	1.58	0.81	Extremely Felt
Stress & worries caused by kidney disease	2.04	0.82	Moderately Felt
Being dependent on doctors & other medical staff	2.31	0.87	Moderately Felt
Your ability to work around the house	2.32	0.89	Moderately Felt
Your sex life	2.51	0.89	Mildly Felt
OVERALL W.M.	**2.05**	**0.68**	**Moderately Felt**

Table 4. Mean and Standard Deviation of the Respondents according to the Burden of Kidney Disease

Burden of Kidney Disease	W.M.	S.D.	Verbal Interpretation
My kidney disease interferes too much in my life	1.73	0.88	Extremely Felt
I feel like a burden on my family	2.00	0.99	Moderately Felt
OVERALL W.M.	**1.87**	**0.85**	**Moderately Felt**

Table 5. Mean and Standard Deviation of the Respondents according to Cognitive Function

Cognitive Function	W.M.	S.D.	Verbal Interpretation
Did you react slowly to things that were said or done	2.56	0.86	Mildly Felt
Did you have difficulty concentrating or thinking	2.56	0.82	Mildly Felt
OVERALL W.M.	**2.56**	**0.81**	**Mildly Felt**

Table 6. Mean and Standard Deviation of the Respondents according to Quality of Social Interaction

Quality of Social Interaction	W.M.	S.D.	Verbal Interpretation
Did you act irritable toward those around you	2.56	0.95	Mildly Felt
Did you isolate yourself from people around you	2.85	1.04	Mildly Felt
Did you get along well with other people	2.06	0.88	Moderately Felt
OVERALL W.M.	**2.49**	**0.76**	**Moderately Felt**

Table 7. Mean and Standard Deviation of the Patients according to Sleep

Sleep	W.M.	S.D.	Verbal Interpretation
Awaken during the night and have trouble staying awake during the day	2.17	1.00	Moderately Felt
Get the amount of sleep you need	2.54	0.90	Mildly Felt
Have trouble staying awake during the day	2.48	1.03	Moderately Felt
OVERALL W.M.	**2.39**	**0.80**	**Moderately Felt**

3. HEALTH DATA OF RESPONDENTS ACCORDING TO WORK STATUS, SEXUAL FUNCTION, SOCIAL SUPPORT, DIALYSIS STAFF ENCOURAGEMENT, AND PATIENT SATISFACTION

Table 8. Mean and Standard Deviation of the Respondents according to Work Status

Work Status	W.M.	S.D.	Verbal Interpretation
Did you work at a paying job	3.69	0.84	Not Felt at all
Does your health keep you from working at a paying job	3.77	0.70	Not Felt at all
OVERALL W.M.	**3.73**	**0.73**	**Not Felt at all**

Table 8. Mean and Standard Deviation of the Respondents according to Sexual Function

Sexual Function	W.M.	S.D	Verbal Interpretation
Enjoying Sex	3.20	0.79	Mildly Felt
Becoming Sexually Aroused	3.18	0.78	Mildly Felt
OVERALL W.M	**3.19**	**0.76**	**Mildly Felt**

Table 9. Mean and Standard Deviation of the Respondents according to Social Support

Social Support	W.M.	S.D.	Verbal Interpretation
The amount of time you can spend with your family and friends	1.66	0.72	Extremely Felt
The support you receive from your family and friends	1.63	0.68	Extremely Felt
OVERALL W.M.	**1.65**	**0.68**	**Extremely Felt**

Table 10. Mean and Standard Deviation of the Respondents according to Dialysis Staff Encouragement

Dialysis Staff Encouragement	W.M.	S.D.	Verbal Interpretation
Dialysis staff encourage me to be as independent as possible	1.76	0.64	Moderately Felt
Dialysis staff support me in coping with my kidney disease	1.69	0.58	Extremely Felt
OVERALL W.M.	**1.73**	**0.59**	**Extremely Felt**

Table 11. Mean and Standard Deviation of the Respondents according to Patient Satisfaction

Patient Satisfaction	W.M.	S.D.	Verbal Interpretation
In terms of your satisfaction, how would you rate the friendliness and interest shown in you as a person.	3.32	0.58	Excellent
OVERALL W.M.	**3.32**	**0.58**	**Excellent**

4.THE PERCEIVED OVERALL HEALTH STATUS OF THE RESPONDENTS

Table 12. Mean and Standard Deviation of the Respondents according to Perceived Overall Health Status

Perceived Overall Health Status	W.M.	S.D.	Verbal Interpretation
How would you rate your overall health	2.90	0.76	Good
OVERALL W.M.	**2.90**	**0.76**	**Good**

5. DIFFERENCE BETWEEN PROFILE AND THE EXTENT OF THE EFFECT ON THE HEALTH STATUS AMONG THE RESPONDENTS

Table 13. Analysis of Variance to the Extent of the Effect of Health Status among the Respondents according to Age Group

The extent of the Effect on Health status	F	p-value	Interpretation
Symptoms/Problem List	0.650	0.690	No Significant Difference
Effects of Kidney Disease	0.984	0.468	No Significant Difference
Burden of Kidney Disease	1.592	0.164	No Significant Difference
Work Status	0.336	0.915	No Significant Difference
Cognitive Function	1.627	0.154	No Significant Difference
Quality of Social Interaction	0.868	0.524	No Significant Difference
Sexual Function	1.346	0.250	No Significant Difference
Sleep	0.715	0.639	No Significant Difference
Social Support	1.441	0.213	No Significant Difference
Dialysis Staff Encouragement	0.321	0.923	No Significant Difference
Patient Satisfaction	2.554	0.028	Have Significant Difference
Overall Health Status	1.716	0.132	No Significant Difference
AVERAGE	**1.179**	**0.425**	**No significant Difference**

Table 14. Analysis of Variance to the Extent of the Effect of Health Status among the Respondents according to Gender

Extent of the Effect of Quality of Life	F	p-value	Interpretation
Symptoms/Problem List	0.021	0.884	No Significant Difference
Effects of Kidney Disease	0.385	0.537	No Significant Difference
Burden of Kidney Disease	3.491	0.066	No Significant Difference
Work Status	0.292	0.591	No Significant Difference
Cognitive Function	1.469	0.230	No Significant Difference
Quality of Social Interaction	0.119	0.731	No Significant Difference
Sexual Function	0.156	0.694	No Significant Difference
Sleep	2.268	0.137	No Significant Difference
Social Support	1.438	0.235	No Significant Difference
Dialysis Staff Encouragement	0.144	0.706	No Significant Difference
Patient Satisfaction	0.477	0.492	No Significant Difference
Overall Health Status	0.496	0.484	No Significant Difference
AVERAGE	**0.896**	**0.482**	**No Significant Difference**

Table 15. T-Test to the extent of the Effect of Health Status among the Respondents according to Type of Institution

The extent of the Effect of Quality of Life	t	p-value	Interpretation
Symptoms/Problem List	1.743	0.086	No Significant Difference
Effects of Kidney Disease	-0.063	0.950	No Significant Difference
Burden of Kidney Disease	-2.754	0.008	Have Significant Difference
Work Status	-2.593	0.012	Have Significant Difference
Cognitive Function	-1.766	0.082	No Significant Difference
Quality of Social Interaction	0.315	0.754	No Significant Difference
Sexual Function	0.691	0.492	No Significant Difference
Sleep	-1.232	0.222	No Significant Difference
Social Support	-0.770	0.444	No Significant Difference
Dialysis Staff Encouragement	1.120	0.267	No Significant Difference
Patient Satisfaction	0.806	0.423	No Significant Difference
Overall Health Status	1.876	0.065	No Significant Difference
AVERAGE	**-0.219**	**0.317**	**No Significant Difference**

6. HEALTH MANAGEMENT PROGRAM FOR HEMODIALYSIS PATIENTS

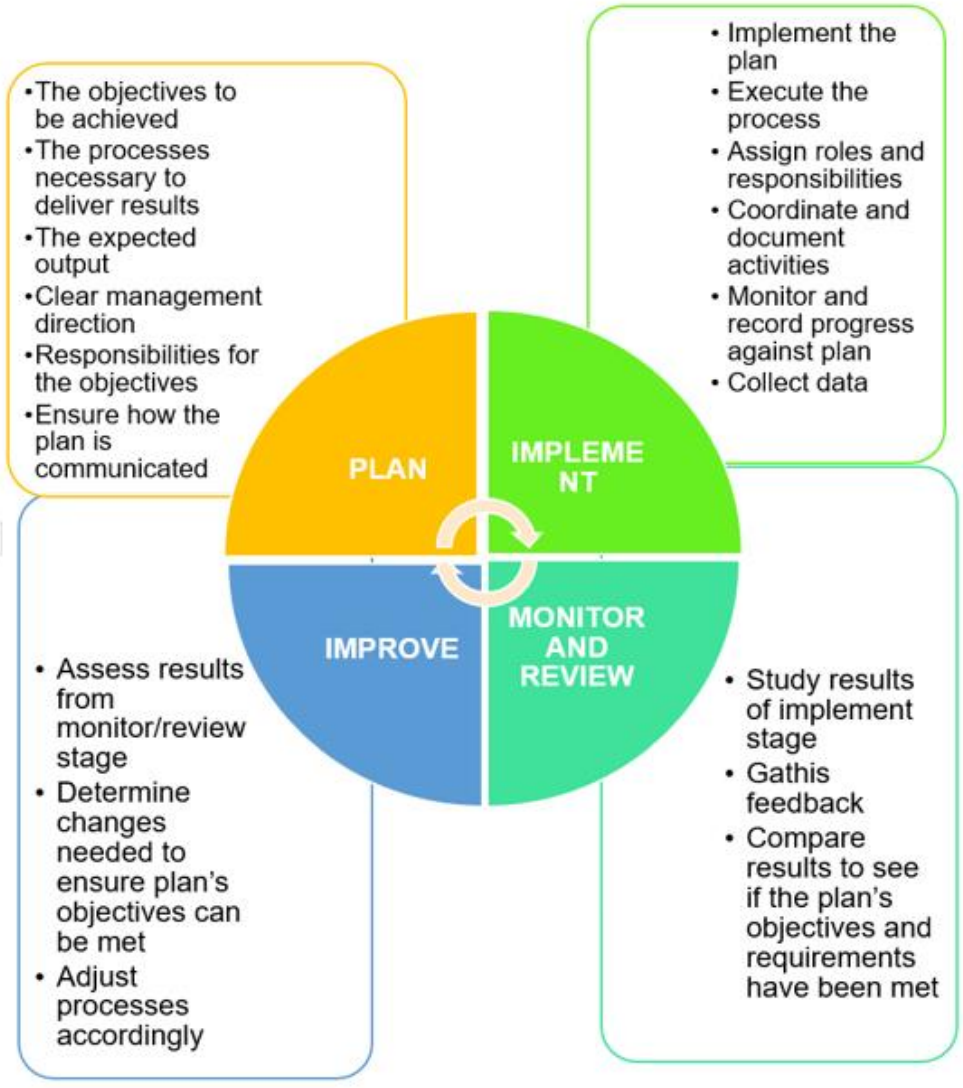
The Health Management Program for Hemodialysis Patients enables patients, medical staff, and personnel to achieve its strategic promises, ensure quality outcomes, and meet its regulatory obligations. This model was committed to the following quality health management objectives/rationale:

- To consistently enhance the medical methodology used at all levels.

- To process inclusive, evidence-based decision-making.
- To utilize internal and external review mechanisms for improvement, and opportunities to implement action plans and medical mitigation strategies.

To create a culture of ownership, participation, and responsiveness where all medical staff and personnel know their respective roles in developing high-quality medical procedures and results.

Health Management Program for Hemodialysis Patients



The Health Management Program for Hemodialysis Patients was designed to maintain a high standard in meeting regulations in health management. The program values feedback and

participation from patients, medical staff, and personnel in enhancing its effectiveness and acknowledges the importance of external reference points in monitoring and measuring health.

Health Management Program for Hemodialysis Patient Name of

Hospital: ***Insert Name***

Department: ***Insert Name***

Name of Proponent: Veronica V. Verches

Title of Activity: Project 3 V's (Virile Vigorous Vital): A Health Management Program for Hemodialysis Patients

Rationale

The 1987 Constitution, Article II, Section 15 states, "The State shall protect and promote the right to health of the people and instill health consciousness among them." Additionally, Article XIII on Social Justice and Human Rights emphasizes that the State will take an integrated and comprehensive approach to health development, ensuring that essential goods and services are available to all at affordable costs, prioritizing the needs of the underprivileged, sick, elderly, disabled, women, and children. It further mandates that the State provide free medical attention to the indigent and establish an effective food and drug regulatory system, while also supporting health manpower development and research tailored to the country's needs.

In line with these constitutional provisions and Presidential Decree No. 1832, integrated medical institutions are tasked with the prevention, diagnosis, treatment, care, rehabilitation, and relief of kidney and allied diseases. Their objectives include:

1. Establishing and operating specialized medical facilities for kidney disease management, ensuring that the Filipino population benefits from comprehensive health services aimed at reducing the incidence of kidney-related conditions.

2. Promoting medical and scientific research to enhance prevention and treatment methods, including advancements in artificial kidney support and transplantation.

3. Conducting nationwide investigations into kidney diseases and disseminating valuable information to the public.

4. Organizing and participating in conferences and training programs focused on kidney diseases, both locally and internationally.

5. Supporting the education and training of healthcare professionals in providing effective services to kidney patients.

6. Assisting academic and research institutions in their studies on kidney diseases, offering scholarships for advanced training in this field, and promoting public health education.

7. Encouraging the formation of organizations at various levels to coordinate efforts in addressing kidney health issues more effectively.

Given these mandates, there is a clear requirement for patient-centered, integrated health programs tailored to the needs of hemodialysis patients. These policy guidelines set standards for providing medical resources aimed at minimizing the prevalence of kidney diseases in the country.

The "Project 3 V's (Virile, Vigorous, Vital): A Health Management Program for Hemodialysis Patients" serves as a comprehensive toolkit for these patients. It includes procedures, instructions, and details designed to support the medical process under the supervision of healthcare providers, while also ensuring continuous monitoring and support from family and peers.

Statement of Terminal and Enabling Objectives

Project 3 V's (Virile Vigorous Vital): A Health Management Program for Hemodialysis Patients generally aims to assess the health status among respondents undergoing hemodialysis in public and private hemodialysis centers in Makati City. Patients who are joining this program will be required to submit the necessary paperwork after each session.

By the end of this Health Management Program, patients will be able to:

1. Acquire and gain knowledge of innovative medical skills driven by modified therapeutic approaches and strategies for the utilization of living a better life.
2. Significantly reduced Symptoms, Effects, and Burdens of Kidney Disease for combating illness.
3. Strengthen their Cognitive Function, Good Quality of Social Interaction, and sleep to enrich their health.
4. Improve Strength to gain Work Employability, Sexual and Social Function to make use of interactive personal improvement of well-being.
5. Appreciate the challenges of having the condition to look at positively and serve in the utilization for living a better life.

With the supervision of an attending physician/doctor/nurse along with the continuous monitoring, support, and guidance of family, relatives, and colleagues, patients who are joining this program should do the following to attain the terminal objectives:

1. Direct needs analysis of their condition and personal growth. And professional development (if applicable)
2. Evaluation of medical content for the development process
3. Incorporation, but limited, of prior knowledge of patients to the condition

4. Recreation of personal health program.

5. Designing the personal health experience.

The Final Product – Project 3 V's (Virile Vigorous Vital): A Health Management Program for Hemodialysis Patient Health Book.

Target Participants:

15 Male and 15 Female Hemodialysis Patients for straightforward offering of care and needs

Health Development Priorities

- Reduction of Symptom, Effects, and their Burdens of Kidney Disease
- Strengthen Cognitive Function, Good Quality of Social Interaction, and Sleep
- Improvement of Strength for Work Employability, Sexual and Social Function

Date of Conduct and Duration:

August 1, 2022, to August 30, 2022 – A 30-day Health Monitoring and Improvement Program for Hemodialysis Patients

Modality:

Hybrid Modality – Combination of Face-to-face Observation and Online Monitoring

Location/Venue:

Insert Hospital Name for Face-to-face Observation, and at Patients' Homes for Online Monitoring

Resource Requirements:

- ***Insert Medical Resources Needed for Health Monitoring and purpose/function***
- ***Insert Medical Resources Needed for Health Monitoring and purpose/function***

Funding Source:

- ***Insert how much money is needed and who will provide it. If no funds will be used, insert "No Funds to be collected and to be used".***

Program Management

Committee	Terms of Reference	Members
Program/ Planning	• Prepare all documentary requirements such as, but not limited to, activity proposal • Organize and lead the whole program flow • Coordinate duties and responsibilities of Program Management Team • Prepare Activity Completion Report	Chairperson: Veronica V. Verches Co-Chairperson: ***Insert Name Supervisor***
Monitoring	• Consolidate participants' medical evaluation of conducted activity and identify areas for improvement • Provide proponent and all units concerned with a copy of the evaluation results with corresponding recommendations	Chairperson: ***Insert Nurse/Doctor*** Co-Chairperson: Veronica V. Verches
Medical	• Collect/ prepare/ assist in preparation and lead in taking proper medical procedures and materials to be used • Provide medical assistance on setting up and managing the platform to be used	Chairperson: ***Insert Nurse/Doctor*** Co-Chairperson: Veronica V. Verches
Security	• Secure physical and safety and security of the participants • Ensure observance of appropriate health and safety standards for physical or face-to-face activities.	Chairperson: ***Insert Name Guard*** Co-Chairperson: ***Insert Name Guard***

Team

Prepared by:

Veronica V. Verches
Registered Nurse

Noted by:

Insert Name
Health Supervisor

Approved by:
Insert Name
Immediate Supervisor

Discussion:

The study's findings indicate that most hemodialysis patients are aged 36 to 40 years, predominantly female, and admitted to private healthcare institutions. Most patients did not report significant symptoms related to kidney disease, but experienced moderate effects and burdens associated with their condition. While cognitive function was mildly impacted, patients maintained a moderate quality of social interaction and satisfactory sleep.

Regarding work and social dynamics, many patients expressed dissatisfaction with their work status and encountered challenges related to sexual function. Despite these issues, they reported high levels of social support, encouragement from dialysis staff, and overall patient satisfaction.

Importantly, the research found no significant differences in health status effects based on age or type of institution, suggesting that health outcomes remain consistent across diverse demographics and healthcare settings. Overall, most patients reported excellent health status, characterized by a lower disease burden and positive relationships with friends and family.

These findings connect to the work of Shukri et al. (2020), who highlighted that health status significantly predicts anxiety and depression in caregivers of hemodialysis patients, emphasizing the critical role of social support. The study by Mroczek (2017) and Pompey et al. (2019) further supports the idea that acceptance of illness correlates with health status and life satisfaction. Zazzeroni et al. (2017) also noted that hemodialysis impacts not only physical health but also social and economic circumstances, leading to psychological challenges.

Monitoring health status is essential for evaluating treatment efficacy, as suggested by Joshi et al. (2017) and Ravindran et al. (2020).

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