

Abstract Submission No.: A-1082

Symptom clusters using dialysis symptom index waray version among chronic kidney disease patients on out-patient maintenance hemodialysis at the hemodialysis unit of a level 2 teaching hospital

Francine Diloy-Bertis, Joyce Matoza-Serna, Johann Roselo Jaya

Department of Internal Medicine-Nephrology, Remedios Trinidad Romualdez Hospital, Philippines

Objectives : This baseline study sought to determine the validity of the Dialysis Symptom Index (DSI) – Waray version as a tool for identifying the symptom clusters observed and its severity among Filipino chronic kidney disease patients on maintenance hemodialysis (MHD).

Methods : A cohort single-center analytical study conducted at the Hemodialysis Unit of Remedios Trinidad Romualdez Hospital in Tacloban City, Leyte, Philippines. Instruments include a Patient Information Form (PIF) and DSI – Waray version. Descriptive statistics and Pearson’s correlation coefficient were used to determine the associations between demographic, clinical and laboratory profiles, symptom clusters, and hemodialysis efficiency. Cronbach’s alpha coefficient was used to determine internal consistency and reliability of the DSI – Waray version.

Results : Thirty-four (34) patients were included as primary respondents during the specified period of data gathering on May, July, and October 2022. Mean age was 57.15 years, majority were male (61.76%), diabetics (55.88%), and had efficient hemodialysis with an average Kt/V of ≥ 1.2 (79.41%). Patients have high symptom burden with all 34 patients presenting with symptoms across all three visits (mean= 7; SD = 5.9). Significant associations between the clinical and demographic profile and the uremic, gastrointestinal, skin, emotional, and neuromuscular symptom clusters were found. Significant association was observed between the serum albumin and gastrointestinal symptom cluster; and serum creatinine and sexual symptom cluster. Significant association between hemodialysis efficiency and the uremic, skin, and sexual symptom clusters were noted. DSI-Waray version showed good test-retest reliability with good internal consistency. Guttman split-half correlation was >0.80 indicating that all parts of the test contributed equally to what is being measured, specifically the severity of symptoms experienced.

Conclusions : CKD patients on MHD reported high symptom burden. DSI – Waray Version is a valid tool that may be used to assess symptoms that may be experienced by these patients.

table 1.jpg



Table 1. Prevalence and Severity of Physical and Emotional Symptoms among Adult Chronic Kidney Disease Patients on Out-patient Maintenance Hemodialysis at the Hemodialysis Unit of Remedios Trinidad Romualdez Hospital Using the Dialysis Symptom Index – Waray Version.

Symptoms	Enrolment (May 2022)		3 Months (July 2022)		6 Months (October 2022)	
	Prevalence (%)	Severity (Mean)	Prevalence (%)	Severity (Mean)	Prevalence (%)	Severity (Mean)
1. Constipation	7	0.62	7	0.56	7	0.47
2. Nausea	5	0.44	5	0.41	5	0.44
3. Vomiting	3	0.26	3	0.26	3	0.26
4. Diarrhea	0	0	0	0	0	0
5. Decreased appetite	3	0.21	2	0.12	2	0.15
6. Muscle cramps	11	0.76	11	0.76	10	0.62
7. Swelling in legs	10	0.53	10	0.50	11	0.50
8. Shortness of breath	9	0.62	9	0.68	9	0.68
9. Lightheadedness or dizziness	5	0.26	5	0.26	5	0.29
10. Restless legs or difficulty keeping legs still	8	0.53	9	0.56	8	0.50
11. Numbness or tingling in feet	23	1.41	20	1.26	23	1.29
12. Feeling tired or lack of energy	11	0.65	10	0.56	9	0.56
13. Cough	8	0.53	8	0.59	8	0.62
14. Dry mouth	15	0.85	17	0.91	15	0.76
15. Bone or joint pain	10	0.59	11	0.65	11	0.65
16. Chest pain	5	0.38	5	0.44	5	0.44
17. Headache	4	0.32	5	0.35	5	0.35
18. Muscle soreness	4	0.32	5	0.41	4	0.32
19. Difficulty concentrating	1	0.09	1	0.09	1	0.09
20. Dry skin	3	0.18	7	0.29	6	0.24
21. Itching	10	0.59	12	0.68	11	0.65
22. Worrying	1	0.09	1	0.09	1	0.09
23. Feeling nervous	2	0.12	1	0.06	2	0.06
24. Trouble falling asleep	21	1.44	20	1.41	20	1.56
25. Trouble staying asleep	21	1.38	24	1.56	20	1.53
26. Feeling irritable	4	0.32	6	0.38	4	0.32
27. Feeling sad	3	0.18	3	0.15	3	0.18
28. Feeling anxious	5	0.21	4	0.18	3	0.18
29. Decreased interest in sex	4	0.12	4	0.12	3	0.09
30. Difficulty being sexually aroused	4	0.12	3	0.09	5	0.15

table 1.jpg



Philippine College of Physicians
INTERNAL MEDICINE / Doctors for Adults
"A Dynamic Community of Ethical and Compassionate Internists,
Committed to Excellence, Integrity and Service above Gain"



Table 2. Association between Symptom Clusters and the Clinical and Demographic Profile of Adult Chronic Kidney Disease Patients on Out-patient Maintenance Hemodialysis at the Hemodialysis Unit of Remedios Trinidad Romualdez Hospital.

Demographic and Clinical Profile	Uremic Symptom Cluster		Gastrointestinal Symptom Cluster		Skin Symptom Cluster		Emotional Symptom Cluster		Sexual Symptom Cluster		Neuromuscular Symptom Cluster	
	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value
Age	0.088	0.621	0.619	0.071	0.088	0.621	0.298	0.087	-0.300	0.084	0.041	0.820
Gender	-0.246	0.161	0.152	0.731	0.056	0.753	0.198	0.262	0.238	0.175	0.094	0.596
Body Mass Index	0.138	0.437	0.317	0.067	0.238	0.175	0.083	0.640	0.126	0.477	-0.121	0.495
Marital Status	0.332	0.856	0.032	0.852	0.126	0.476	0.218	0.216	0.036	0.841	-0.023	0.898
Religion	0.216	0.729	0.016	0.929	-0.151	0.394	0.031	0.860	-0.079	0.658	-0.169	0.340
Level of Education	0.657	0.079	-0.068	0.701	0.205	0.244	0.207	0.239	-0.114	0.520	0.242	0.168
Employment Status	-0.828	0.016	0.069	0.697	-0.106	0.550	0.004	0.983	-0.116	0.514	0.004	0.983
Income Class	.229	0.193	-0.295	0.130	-0.150	0.396	0.189	0.283	-0.006	0.973	0.131	0.461
Payment for HD	0.780	0.049	-0.027	0.881	0.488	0.003	-0.014	0.937	0.249	0.155	0.183	0.300
Smoking History	0.156	0.378	-0.012	0.947	-0.283	0.105	0.197	0.264	0.018	0.918	-0.037	0.835
Drinking History	0.100	0.576	0.655	0.187	-0.152	0.392	0.254	0.148	0.015	0.931	-0.004	0.982
Primary Disease	0.134	0.449	-0.147	0.406	-0.091	0.609	0.353	0.040	-0.005	0.979	-0.077	0.663
Comorbidities												
Diabetes Mellitus	0.724	0.063	0.111	0.531	-0.105	0.556	-0.091	0.608	-0.068	0.702	0.189	0.284
Hypertension	0.290	0.614	0.086	0.631	-0.265	0.129	0.210	0.234	-0.191	0.278	-0.179	0.310
Gout	0.363	0.524	-0.100	0.573	-0.132	0.459	-0.091	0.608	-0.068	0.702	0.189	0.264
Others	-0.142	0.424	-0.098	0.583	-0.156	0.377	-0.025	0.887	-0.143	0.420	0.080	0.652
Duration of CKD	0.863	0.031	0.875	0.028	-0.138	0.435	0.114	0.522	0.156	0.378	0.177	0.315
Time in HD	0.844	0.012	0.887	0.037	0.167	0.346	-0.042	0.814	0.299	0.086	0.413	0.015
HD sessions per week	0.141	0.425	0.128	0.471	0.033	0.851	-0.235	0.181	0.150	0.399	0.073	0.682
Erythropoietin used week	0.611	0.091	-0.317	0.623	-0.175	0.322	-0.086	0.627	0.067	0.706	0.051	0.775
Average Kt/V	-0.919	0.026	-0.133	0.454	-0.545	0.001	-0.326	0.060	-0.516	0.002	-0.301	0.083