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Impact of Hospital to Home (H2h) Initiative on Therapeutic Compliance, Functional Ability and Health Related Quality Of Life among Patients with Heart Failure a Randomized Controlled Trial

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Background: *Hospital to Home initiative (H2H) is Nurse directed multi- component patient discharge education for improving functional status, health related quality of life and preventing hospital re - admission with exacerbation. Available studies and systematic reviews suggest that the elderly patients benefit from systematic education and counseling prior to discharge. However the duration of such interventions and the optimal follow up intensity still remain open. The primary aim of this pilot study is to test the feasibility and potential efficacy of the H2H patient discharge education among patients with Heart failure in KMCH hospital, Coimbatore.*
Methods: *Enrolled 30 patients with a diagnosis of HF Functional class II-III from cardiothoracic wards. The patients were randomized into control and study groups. Control group patients received routine care whereas the intervention group patients received intensive, systematic Nurse - led education programme, telephone communication and follow - up. Data were collected by using HF compliance scale, Morisky medication adherence scale (MMAS), European Heart failure self-care behavior scale (EuHFSc), Duke activity status index (DASI), and Minnesota Living with heart failure questionnaire (MLHFQ) at baseline and at 30,90 days follow up. The primary end points were all-cause readmission and all-cause deaths during the 3 months post - discharge period.*
Results: *Statistically there is no difference between experimental and control group demographic and clinical distribution. All the patients have low adherence in medication and impairment in quality of life. At 3 months follow up, the therapeutic compliance in terms of knowledge score and medication adherence has significantly (P value - 0.01) improved in study group. In Post-test II the significant difference in compliance score (chi square test 12.31) self-care behavior scale with 66.67 % and the functional ability was moderately improved (73.33%)(P value-0.01) with experimental group. Statistical Significance calculated by using Mann Whitney U-test, there was no significant difference in compliance score (z=1.71, P=0.09(NS))and health related quality of life z=0.77 P=0.44(NS) until post-test I between control and experimental group. There was difference in self-care behavior (z=4.03, P=0.001(S)) and functional ability with the score z=3.19 P=0.001(S). There is positive correlation between compliance and functional ability r=0.29 p=0.05. There is positive correlation between self-care behavior score and Heath related quality of life impairment reduction score (r=0.36, p=-0.001).*
Conclusion: *These are promising pilot results that, the nurse administered H2H discharge education among patients with heart failure improves therapeutic compliance in terms of medication adherence, functional status at 3 months and substantially improved health related quality of life. Replication with larger sample is probably effective in reducing the number of unplanned re-admissions.*
Key Words*: Heart Failure, H2H, Medication adherence, self-care, functional ability, Quality of life.*

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I. Background:

Heart failure is a chronic disorder with high morbidity and mortality. The burden is increasing at an alarming rate worldwide as well as in India. An estimated 17.9 million people die each year due to all cause CVD, an estimated 31% of all deaths word wide. ***(17 May 2017 - WHO*)**. Unlike western countries where heart failure is predominantly a disease of the elderly, in India it affects younger age group, prevalence is very low in young adults, rises in middle age in 40 to 59 years, and steeply increases after the age of 60 years. Heart failure is not only increasing the risk of mortality, but worsens the patient's functional ability and thus impairs the quality of life. It has major impact on the lives of patients and their families. Patients have to adjust their life style with complex medication regimen, changing dietary pattern with salt and fluid intake, adapting to restricted activities and have to monitor symptoms which exacerbates the condition.

Despite advances in HF management, the hospital re admissions with worsening symptoms still remain same. It requires strong focus on educating patients and their families along with therapeutic regimen. Patients need specific knowledge and skills for adapting to the changes after discharge from hospital. Patient education is a vital component for adhering medication regimen, enhancing self-care abilities, and early recognizing of signs and symptoms for improving health related outcomes and reducing the need for re admission with exacerbation. Reinforcement in patient education and along with counseling will enhance life style modification.

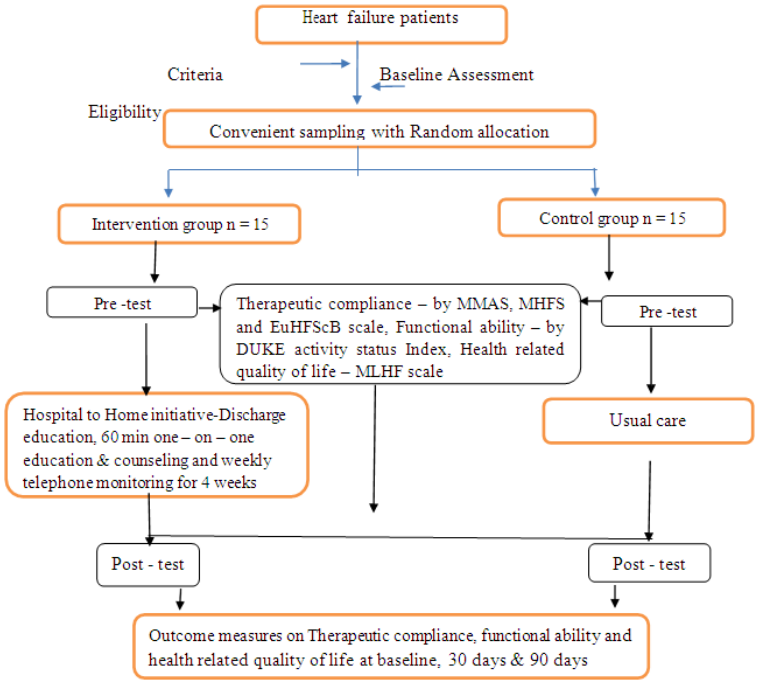
Coping with chronic illness is challenging task not only for patient but also for family members. To ensure the effectiveness, the intensity of education and reinforcement is achieved through telephonic counseling for each patient and their family. This quality initiation on discharge education helps to achieve smooth transition from hospital to home. When the patient is able to understand the necessity of adherence to treatment regimen along with life style modification as insisted in discharge education will enhance self-confidence to take care themselves as symptom persists. Sufficient knowledge about their disease condition, medications and its actions, interactions, dietary changes, fluid management could exercise tolerance. Teaching patients to stay alert in recognizing signs and symptoms could help the patient for early medical attention. Although HF management included patient education as one of the core component with multi model interventions, there is a need for nurse researcher to address gaps in transitional care for heart failure patients by performing studies with larger randomized clinical trials and measuring outcomes such as level of compliance, functional ability and health related quality of life among patients over the study period. The aim of this study to evaluate the potential efficacy of Hospital to Home Initiative - an intensive individualized patient education and counselling towards the improvement in clinical outcomes and health related quality of life.

II. Methods:

This pilot study was performed at Kovai Medical center & Hospital and was approved by review board. Patients were recruited from cardiothoracic ward in cardiology department of hospital from December 2018 through June 2019. For this study, a total number of 30 patients who are admitted with the diagnosis of heart failure, aged between 31 to 80 years, NYHA functional class II and III, and clinically stable with medications were screened and enrolled. Patients were excluded from the study if they underwent surgery in the last 3 months, ejection fraction less than 20 %, any cognitive impairment that limits physical ability and with severe co morbidity like renal insufficiency, high grade arrhythmic and lung disease.

STUDY DESIGN: The researcher obtained informed consent and collected baseline data from the medical records and by interview. Patients were recruited by convenient Sampling with random allocation. By drawing an envelope, patients were randomly allocated to receive "conventional care" (controls) or the H2H interventional care (Experimental) group. All patients were followed for 3 months.

FLOW – CHART DIAGRAM OF THE STUDY



INTERVENTION GROUP:

The Hospital to Home initiative intervention is consisted of 1 hour long one-on-one intensive education by a nurse educator before discharge. This education session unfolds heart failure specific information that includes the basic principles and causes of heart failure, diet compliance in-terms of salt restriction and fluid management, mechanism of diuretics, rationale for self-care behavior, and health relate quality of life. This discharge education is started during patient's hospital stay and it is implemented in three phases. Initially researcher given time to assess the needs of patients then provided education in two sessions for patient and care giver. In addition, individual problems were discussed, such as family coping, limited access to the cardiologist appointment. Given standard discharge information booklet and medication card at the time of discharge. The booklet included the description of heart failure, symptoms and recognize when exacerbates, dietary modifications, fluid restrictions, activity instructions and date of follow up appointment. These group patients were monitored through telephone communication after a week of discharge to asses' potential problems and up-to 3 months with regular intervals. During telephone Communication, the patients were reinforced to adhere to the therapeutic regimen and patients were asked to call study nurse in case of any problems. The data were collected at baseline, 30 days and 90 days after discharge at the time of hospital follow up.

Patients assigned for conventional care (control group) received all standard care. They were not provided with H2H intervention, a follow-up with telephone call by a Nurse educator. At the time of enrollment and by follow up at 30 and 90 days, the patients were administered standard questionnaires addressing outcome variables. The patients in study and control were not in same room or data collected not at same time.

DATA COLLECTION: Outcome variables of the study are therapeutic compliance, medication adherence, self-care behavior, activity level and health related quality of life. The population description and differences are obtained from demographic and clinical variables.

Demographic and Clinical data: At the time of enrollment, clinical data were collected from the patient's case sheet. These included etiology of illness, NYHA functional class, left ventricular ejection fraction, co morbidities, medications and previous hospitalization. At the same time, the patient was interviewed to collect demographic data including age, gender, marital status, education, occupation and personal habits.

Therapeutic compliance: self-administered questionnaire to assess the level of adherence using Modified Heart failure Compliance scale with specific health behavior recommendations, Morisky medication adherence scale was used to assess the medication status. It is consisting of 8 questions related to medication and scored 8 consider with high adherence and less than 6 indicates low adherence level.

European Heart failure self-care behaviour scale (EuHFScB) - the 9 item self-care behavior scale was developed to measure patient' s self-care behaviour scored with 5 point likert scale from completely agree and completely disagree.

Functional ability of the patient is measured with self-administered questionnaire Duke activity status index (DASI) from mild, moderate and strenuous activities. The ratio of exercise metabolic rate is defined as the energy expenditure for sitting quietly, for the average adult, approximates 3.5 ml of oxygen uptake per kilogram of body weight per minute.1 MET = 3.5ml/kg/min VO2 One metabolic equivalent (**MET**) is defined as the amount of oxygen consumed while sitting at rest and is equal to 3.5 ml O2 per kg body weight x min.

Health related quality of life: It refers to the patient's ability to enjoy life activities with satisfaction by measuring physical health, mental and emotional function, family, sexual activities and social functioning. It is measured by using Minnesota living with heart failure – a self-administered questionnaire. The questionnaire has 21 items to cover the patient's perception of such impairments is assessed on a scale ranging from no (0) to very much (5).

III. Statistical Analysis:

Demographic variables in categorical/dichotomous were given in frequencies with their percentages. Adherence score, Compliance score, Behavior score, Functional ability score and QOL score were given in mean and standard deviation. Similarity of demographic distribution among Experiment and Control was tested using chi square test. Quantitative variables difference between Experiment and Control was assessed using Mann whitney-test. Qualitative variables difference between Experiment and Control was assessed using chi square test. Quantitative differences between Pretest, posttest1 and posttest2 were assessed using repeated measures analysis of Friedman-test.

Association between posttest Adherence score, Compliance score, Behavior score, Functional ability score and QOL score with demographic variables were analyzed using chi square test. Correlation between Adherence score, Compliance score, Behavior score, Functional ability score and QOL score were analyzed using spearman rank correlation coefficient method.

Simple bar diagram, Multiple bar diagram and simple bar with 2 standard error diagram were used to

represent the data. A p-value of ≤0.05 was considered statistically significant, and two-tailed tests were used for testing significance Statistical analysis was carried out using the Statistical Package for Social Sciences (SPSS, version 16) and STATA (version 10) and Epi info (Version 3.5.1) statistical software's.

Objective 1: To describe the functional ability, health related quality of life and therapeutic compliance in patients with heart failure amongst patients attending Kmch hospital.

Table 1: Distribution of Pretest, Posttest-I and Posttest-II Level of medication adherence score associated with Heart failure among Heart failure patients by GroupWise **(N = 30)**

Assessment	Level of adherence	Group				Chi-square value	P value
		Experimental Group (n=15)		Control Group (n=15)			
		No.	%	No.	%		
Pre-test	Low adherence	15	100.00%	15	100.00%	0.00	1.00 (NS) DF=1
	Medium adherence	0	0.00%	0	0.00%		
	High adherence	0	0.00%	0	0.00%		
Post-test-I	Low adherence	8	53.33%	11	73.33%	1.29	0.35 (NS) DF=1
	Medium adherence	7	46.67%	4	26.67%		
	High adherence	0	0.00%	0	0.00%		
Post-test-II	Low adherence	4	26.67%	10	66.67%	4.82	0.02 (S) DF=1
	Medium adherence	11	73.33%	5	33.33%		
	High adherence	0	0.00%	0	0.00%		

DF= Degrees of freedom S= significant NS= not significant
P>0.05 not significant P≤0.05 significant

- Table 8 compares the level of medication adherence score between experimental and control group among heart failure patients.
- In pre-test, there is no significant difference of level of medication adherence between experimental and control group of patients. The non-significant P- values 1.00 indicate, similarity of level of medication adherence among experiment and control group.
- In post-test-I, there is no significant difference in level of medication adherence score between experimental and control group of patients. The not significant P- values 0.35 indicates, the level of similarity of level of medication adherence among experiment and control group
- In post-test-II, there is a significant difference in level of medication adherence score between experimental and control group of patients. The significant P- values 0.02 indicates, the experiment group having medium level of medication adherence score more than control group.

Table 2: Distribution of Pretest, Posttest-I and Posttest-II Level of Modified Heart failure compliance scale score among Heart failure patients by GroupWise (N = 30)

Assessment	Level of Compliance	Group				Chi-square value	P value
		Experimental Group (n=15)		Control Group (n=15)			
		No.	%	No.	%		
Pretest	Low Compliance	8	53.33%	7	46.67%	0.13	0.71 (NS) DF=1
	Medium Compliance	7	46.67%	8	53.33%		
	High Compliance	0	0.00%	0	0.00%		
Posttest-I	Low Compliance	1	6.67%	5	33.33%	6.67	0.05 (S) DF=2
	Medium Compliance	10	66.67%	10	66.67%		
	High Compliance	4	26.66%	0	0.00%		
Posttest-II	Low Compliance	0	0.00%	3	20.00%	12.31	0.01 (S) DF=2
	Medium Compliance	7	46.67%	12	80.00%		
	High Compliance	8	53.33%	0	0.00%		

DF= Degrees of freedom S= significant NS= not significant
P>0.05 not significant P≤0.05 significant

Table 2 compares the level of compliance score between experimental and control group among heart failure patients.

- In pre-test, there is no significant difference of level of compliance between experimental and control group of patients. The non-significant P- values 1.00 indicate, similarity of level of compliance among experiment and control group.
- In post-test-I, there is a significant difference in level of compliance score between experimental and control group of patients. The significant P- values 0.05 indicates, experiment group are having more level of compliance than control group.
- In post-test-II, there is a significant difference in level of compliance score between experimental and control group of patients. The significant P- values 0.01 indicates, experiment group are having more level of compliance than control group

Table 3: Distribution of Pretest, Posttest-I and Posttest-II Level of Self-Care Behaviour Scale among Heart failure patients by GroupWise **(N = 30)**

Assessment	Level of Behavior	Group				Chi-square value	P value
		Experimental Group (n=15)		Control Group (n=15)			
		No.	%	No.	%		
Pre-test	Good	2	13.33%	2	13.33%	0.00	1.00 (NS) DF=1
	Moderate	13	86.67%	13	86.67%		
	Poor	0	0.00%	0	0.00%		
Post-test-I	Good	9	60.00%	3	26.67%	5.00	0.05 (S) DF=1
	Moderate	6	40.00%	12	73.33%		
	Poor	0	0.00%	0	0.00%		
Post-test-II	Good	11	73.33%	4	33.33%	6.53	0.01 (S) DF=1
	Moderate	4	26.67%	11	66.67%		
	Poor	0	0.00%	0	0.00%		

DF= Degrees of freedom S= significant NS= not significant
P>0.05 not significant P≤0.05 significant

Table 3 compares the level of Behaviour score between experimental and control group among heart failure patients.

- In pre-test, there is no significant difference of level of Behavior between experimental and control group of patients. The non-significant P- values 1.00 indicate, similarity of level of Behavior among experiment and control group.
- In post-test-I, there is a significant difference in level of Behavior score between experimental and control group of patients. The significant P- values 0.05 indicates, experiment group are having more good level of Behavior score than control group.
- In post-test-II, there is a significant difference in level of Behavior score between experimental and control group of patients. The significant P- values 0.01 indicates, experiment group are having more good level of Behavior than control group

Table 4: Distribution of Pretest, Posttest-I and Posttest-II Level of Functional ability Scale score among Heart failure patients by GroupWise **(N = 30)**

Assessment	Level of Functional ability Scale	Group				Chi-square value	P value
		Experimental Group (n=15)		Control Group (n=15)			
		No.	%	No.	%		
Pre-test	Poor	10	66.67%	9	60.00%	0.14	0.71 (NS) DF=1
	Moderate	5	33.33%	6	40.00%		
	Good	0	0.00%	0	0.00%		
	Excellent	0	0.00%	0	0.00%		
Post-test-I	Poor	2	13.33%	7	46.67%	6.83	0.05 (S) DF=2
	Moderate	9	60.00%	8	53.33%		
	Good	4	26.67%	0	0.00%		
	Excellent	0	0.00%	0	0.00%		
Post-test-II	Poor	0	0.00%	4	26.67%	8.00	0.01 (S) DF=2
	Moderate	11	73.33%	11	73.33%		
	Good	4	26.67%	0	0.00%		
	Excellent	0	0.00%	0	0.00%		

DF= Degrees of freedom S= significant NS= not significant
P>0.05 not significant P≤0.05 significant

Table 4 compares the level of Functional ability Scale score between experimental and control group among heart failure patients.

- In pre-test, there is no significant difference of level of Functional ability between experimental and control group of patients. The non-significant P- values 0.71 indicate, similarity of level of Functional ability among experiment and control group.
- In post-test-I, there is a significant difference in level of Functional ability score between experimental and control group of patients. The significant P- values 0.05 indicates, experiment group are having more good level of Functional ability score than control group.
- In post-test-II, there is a significant difference in level of Functional ability score between experimental and control group of patients. The significant P- values 0.01 indicates, experiment group are having more good level of Functional ability than control group.

Table 5: Distribution of Pretest, Posttest-I and Posttest-II Level of Quality of life (Impairment Scale) score among Heart failure patients by GroupWise **(N = 30)**

Assessment	Level of impairment	Group				Chi-square value	P value
		Experimental Group (n=15)		Control Group (n=15)			
		No.	%	No.	%		
Pre-test	Low	0	0.00%	0	0.00%	0.19	0.67 (NS) DF=1
	Medium	12	80.00%	11	73.33%		
	High	3	20.00%	4	26.67%		
Post-test-I	Low	5	33.33%	0	0.00%	6.19	0.05 (S) DF=2
	Medium	8	53.33%	13	86.67%		
	High	2	13.33%	2	13.33%		
Post-test-II	Low	9	60.00%	2	13.33%	7.03	0.01 (S) DF=1
	Medium	6	40.00%	13	86.67%		
	High	0	0.00%	0	0.00%		

DF= Degrees of freedom S= significant NS= not significant

P>0.05 not significant P≤0.05 significant

Table 5 compares the level of impairment score between experimental and control group among heart failure patients.

- In pre-test, there is no significant difference of level of impairment between experimental and control group of patients. The non-significant P- values 0.67 shows, similarity of level of impairment among experiment and control group .
- In post-test-I, there is a significant difference in level of impairment score between experimental and control group of patients. The significant P- values 0.05 shows, experiment group are having more low level of impairment score than control group.
- In post-test-II, there is a significant difference in level of impairment score between experimental and control group of patients. The significant P- values 0.01 indicates, experiment group are having more low level of impairment than control group.

Table 6: Comparison of the Therapeutic compliance Functional ability and Health related quality of life and in patients with heart failure among Experiment and control group

		Group				Mean Difference	Mann Whitney U test
		Experiment		Control			
	Test	Mean	SD	Mean	SD		
Medication adherence scale	Pre-test	3.27	0.80	3.20	0.86	0.07	z=0.58 P=0.55(NS)
	Post-test-I	4.40	1.30	3.60	1.18	0.80	z=1.71 P=0.09(NS)
	Post-test-II	5.60	1.88	3.73	0.96	1.87	**z=2.83 P=0.01(S)**
Modified Heart failure compliance scale	Pre-test	64.27	10.53	66.87	5.15	-2.60	z=1.84 P=0.07(NS)
	Post-test-I	84.27	3.35	68.20	5.56	16.07	**z=4.69 P=0.001(S)**
	Post-test-II	96.13	5.13	70.20	5.33	25.93	**z=4.95 P=0.001(S)**
European Heart Failure Self-Care Behaviour Scale	Pre-test	26.27	1.87	25.93	2.49	0.34	z=0.23 P=0.81(NS)
	Post-test-I	20.27	5.26	25.27	3.01	-5.00	**z=2.64 P=0.01(S)**
	Post-test-II	17.13	3.66	24.67	3.52	-7.54	**z=4.03 P=0.001(S)**

							z=0.77 P=0.44(NS)
Functional Ability	Pre-test	3.93	1.16	4.27	1.28	-0.34	
	Post-test-I	5.53	1.36	4.53	1.30	1.00	**z=2.24 P=0.03(S)**
	Post-test-II	6.20	0.41	4.80	1.13	1.40	**z=3.19 P=0.001(S)**
							z=0.56 P=0.57(NS)
Quality of life(Impairment score)	Pre-test	57.13	10.86	59.87	5.01	-2.74	
	Post-test-I	42.93	10.32	57.60	4.56	-14.67	**z=3.62 P=0.001(S)**
	Post-test-II	36.73	8.04	57.33	4.27	-20.6	**z=4.68 P=0.001(S)**

Fig 14-18

- Considering Medication adherence score, in pretest as well as posttest-I there is no significant difference between experiment and control but in posttest-II there is a significant difference between them.
- Considering Modified Heart failure compliance scale score, in pretest there is no significant difference between experiment and control but in posttest-I and in posttest-II there is a significant difference between them.
- Considering European Heart Failure Self-Care Behaviour Scale score, in pretest there is no significant difference between experiment and control but in posttest-I and in posttest-II there is a significant difference between them.
- Considering Functional Ability Scale score, in pretest there is no significant difference between experiment and control but in posttest-I and in posttest-II there is a significant difference between them.
- Considering Quality of life (Impairment score), in pretest there is no significant difference between experiment and control but in posttest-I and in posttest-II there is a significant difference between them.
- Statistical significance was calculated using non parametric Mann Whitney U test.

Table 7: Comparison of the pretest, posttest-I and posttest-II Therapeutic compliance, Functional ability and Health related quality of life among patients with heart failure (Experiment group)

Scales	*TEST*						Mean Difference	Friedman Repeated measures test
	Pretest		*Posttest-I*		*Posttest-II*			
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*		
Medication adherence scale	3.27	0.80	4.40	1.30	5.60	1.88	2.33	**χ^2=17.79 p=0.001*** (S)**
Modified Heart failure compliance scale	64.27	10.53	84.27	3.35	96.13	5.13	31.86	**χ^2=17.78 p=0.001*** (S)**
European Heart Failure Self-Care Behaviour Scale score	26.27	1.87	20.27	5.26	17.13	3.66	-9.14	**χ^2=18.62 p=0.001*** (S)**
Functional Ability Scale score	3.93	1.16	5.53	1.36	6.20	0.41	2.27	**χ^2=17.73 p=0.001*** (S)**
Quality of life(Impairment score)	57.13	10.86	42.93	10.32	36.73	8.04	-20.4	**χ^2=16.91 p=0.001*** (S)**

- In Experiment group, considering medication adherence scale score, they gained 2.33 score, statistically this difference is large and it is significant.
- Considering Modified Heart failure compliance scale score, they gained 31.86 score, statistically this difference is large and it is significant.
- Considering European Heart Failure Self-Care Behaviour Scale score, they reduced 9.14 score, statistically this difference is large and it is significant.
- Considering Functional Ability Scale score, they gained 2.27 score, statistically this difference is large and it is significant.
- Considering Quality of life (Impairment score), they reduced 20.4 score, statistically this difference is large and it is significant.
- Statistical significance was calculated using non parametric repeated measure Fried man test.

Table 8: Comparison of the pretest, posttest-I and posttest-II Therapeutic compliance, Functional ability and Health related quality of life among patients with heart failure (Control group)

Scales	*TEST*						Mean Difference	Friedman Repeated measures test
	Pretest		*Posttest-I*		*Posttest-II*			
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*		
Medication adherence scale	3.20	0.86	3.60	1.18	3.73	1.58	0.53	$\chi 2=3.46$ p=0.17 (NS)
Modified Heart failure compliance scale	66.87	5.15	68.20	5.56	70.20	5.33	3.33	$\chi 2=3.00$ p=0.22 (NS)
European Heart Failure Self-Care Behaviour Scale score	25.93	2.49	25.27	3.01	24.67	3.52	-1.26	$\chi 2=5.14$ p=0.07 (NS)
Functional Ability Scale score	4.27	1.28	4.53	1.30	4.80	1.13	0.53	$\chi 2=3.06$ p=0.22 (NS)
Quality of life(Impairment score)	59.87	5.01	57.60	4.56	57.33	4.27	-2.54	$\chi 2=4.75$ p=0.09 (S)

- In control group, considering medication adherence scale score, they gained 0.53 score, statistically this difference is large and it is significant.
- Considering Modified Heart failure compliance scale score, they gained 3.33 score, statistically this difference is large and it is significant.
- Considering European Heart Failure Self-Care Behaviour Scale score, they reduced 1.26 score, statistically this difference is large and it is significant.
- Considering Functional Ability Scale score, they gained 0.53 score, statistically this difference is large and it is significant.
- Considering Quality of life (Impairment score), they reduced 2.54 score, statistically this difference is large and it is significant.
- Statistical significance was calculated using non parametric repeated measure Fried man test.

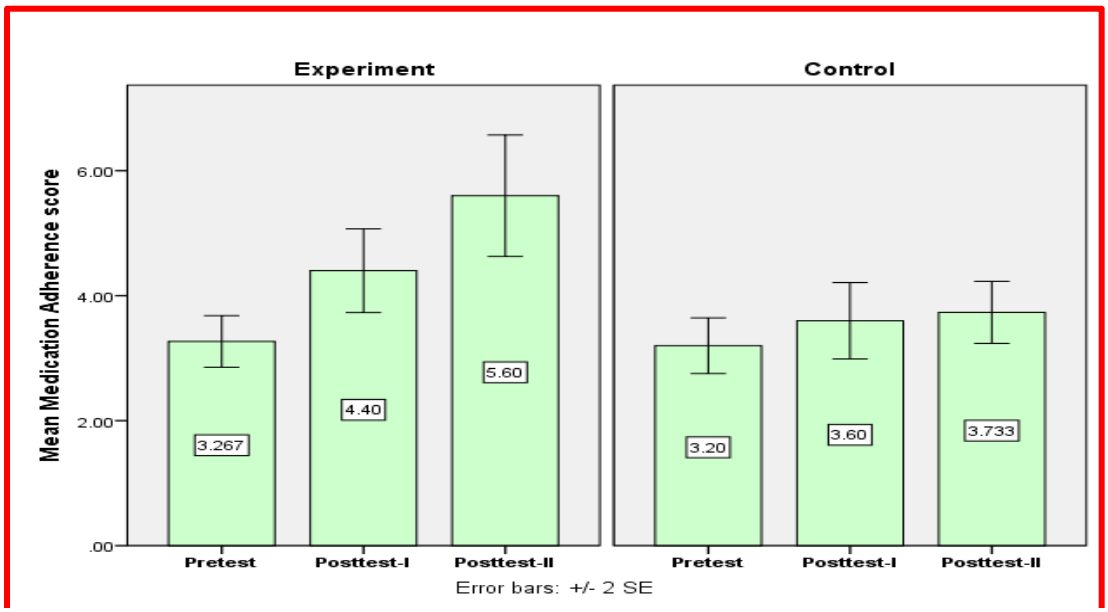


Fig 14: Simple bar with 2 standard error diagram compares the mean Medication adherence score between experiment and control group

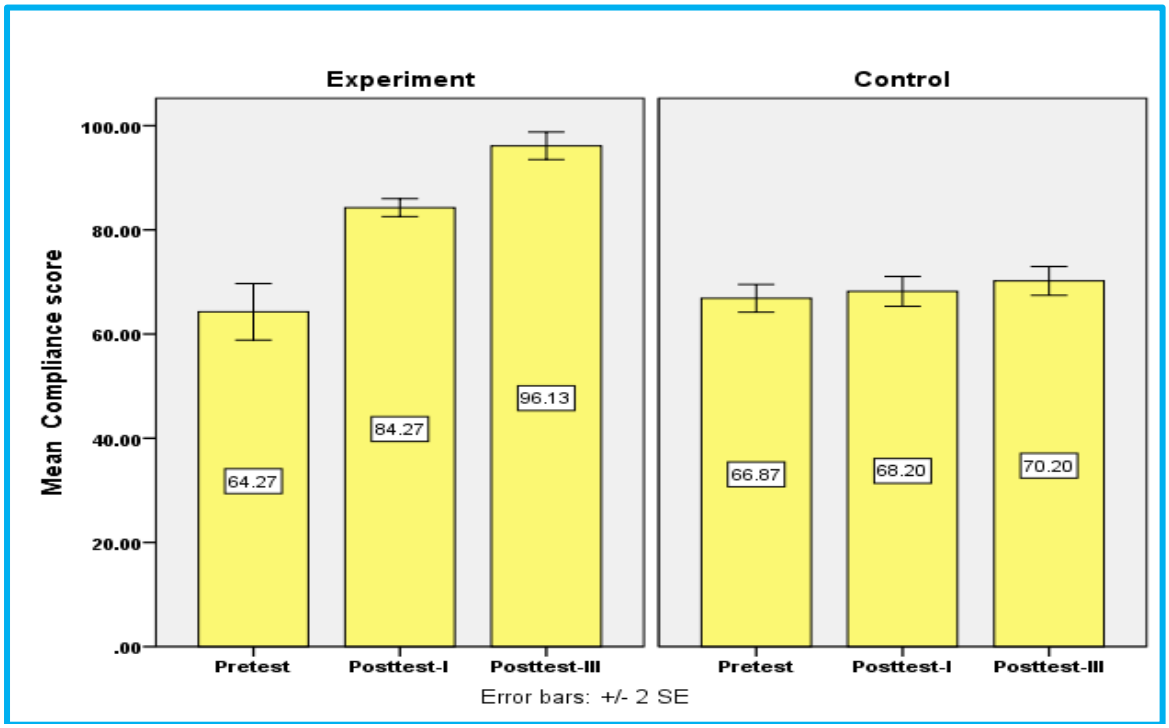


Fig 15: Simple bar with 2 standard error diagram compares the mean Compliance score between experiment and control group

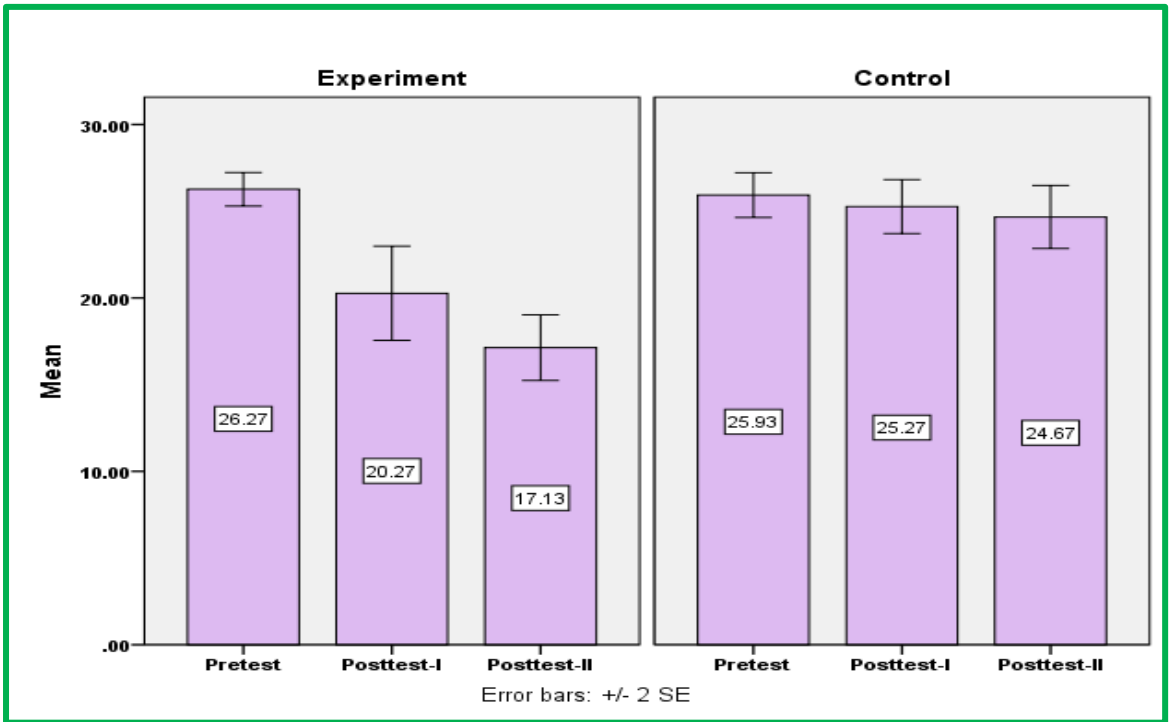


Fig 16: Simple bar with 2 standard error diagram compares the mean Behaviour score between experiment and control group

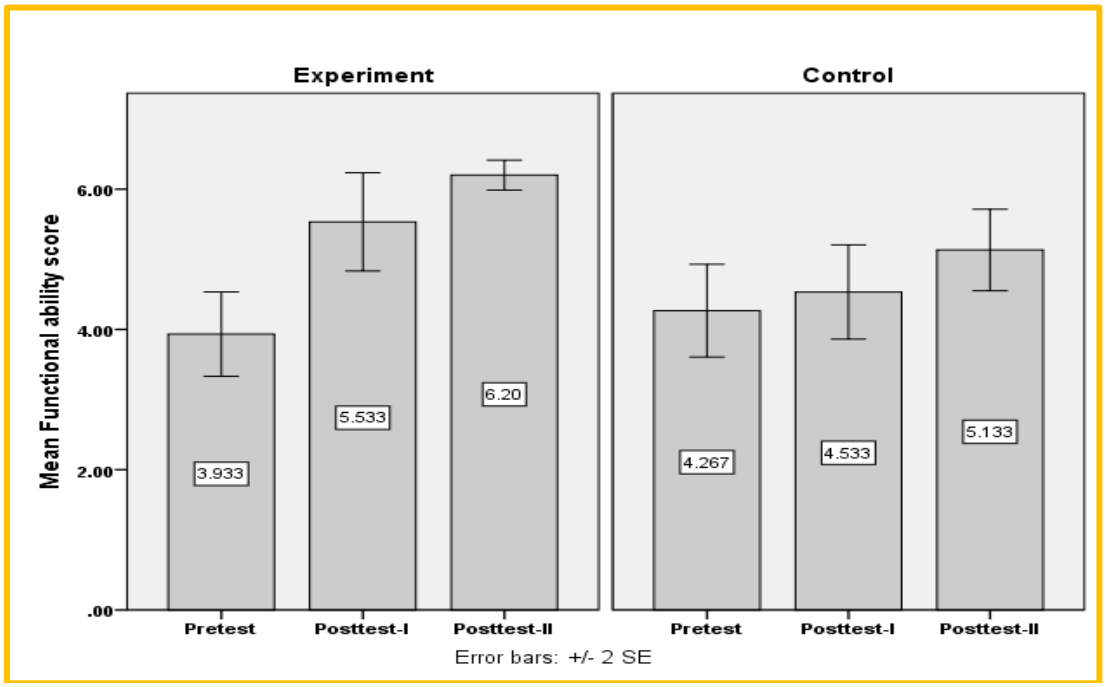


Fig 17: Simple bar with 2 standard error diagram compares the mean Functional ability score between experiment and control group

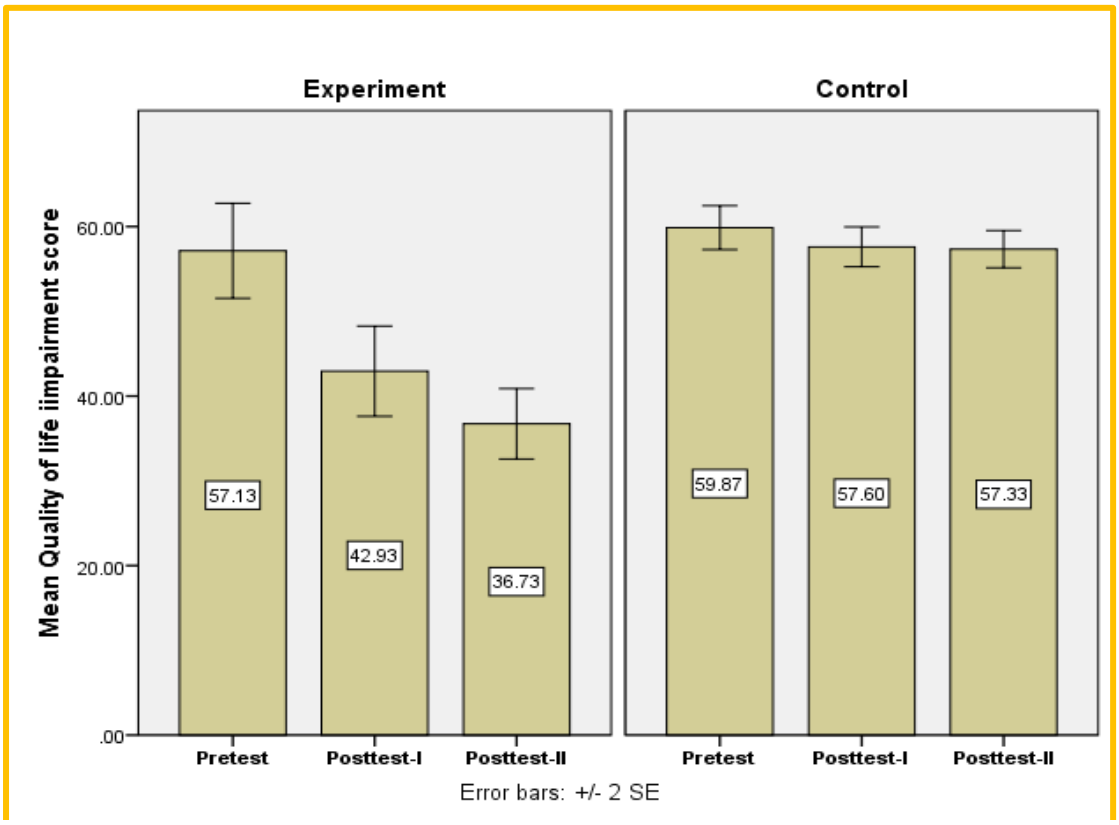


Fig 18: Simple bar with 2 standard error diagram compares the mean Quality of life impairment score between experiment and control group

Objective 2: To evaluate the feasibility and efficacy of Hospital to home initiative intervention package in the study population.

Table 15 DIFFERENCE BETWEEN PRETEST AND POSTTEST PERCENTAGE OF GAIN SCORE (Experiment)

scales	Maximum score	Percentage of score						Gain score/reduction score
		Pre-test		Post-test-I		Post-test-II		
		Mean	%	Mean	%	Mean	%	
Medication adherence scale	8	3.27	40.88%	4.40	55.00%	5.60	70.00%	↑29.12%
Modified Heart failure compliance scale	124	64.27	51.83%	84.27	67.96%	96.13	77.52%	↑25.69%
European Heart Failure Self-Care Behaviour Scale score	45	26.27	58.38%	20.27	45.04%	17.13	38.07%	↓20.31%
Functional Ability Scale score	12	3.93	32.75%	5.53	46.08%	6.20	51.67%	↑18.92%
Quality of life(Impairment score)	105	57.13	54.41%	42.93	40.89%	36.73	34.98%	↓19.43%

- In experiment group, in Medication adherence scale, patients are gained 29.12% more score.
- In Modified Heart failure compliance scale patients are gained 25.69% more score,
- In European Heart Failure Self-Care Behaviour Scale score patients are reduced 20.31% score.
- In Functional Ability Scale score, patients are gained 18.92% more score.
- In Quality of life (Impairment score) patients are reduced 19.43% score.

Table 9 DIFFERENCE BETWEEN PRETEST AND POSTTEST PERCENTAGE OF GAIN SCORE (Control)

Scales	Maximum score	Percentage of score						Gain score/reduction score
		Pre-test		Post-test-I		Post-test-II		
		Mean	%	Mean	%	Mean	%	
Medication adherence scale	8	3.20	40.00%	3.60	45.00%	3.73	46.63%	↑6.63%
Modified Heart failure compliance scale	124	66.87	53.93%	68.20	55.00%	70.20	56.61%	↑2.68%
European Heart Failure Self-Care Behaviour Scale score	45	25.93	57.62%	25.27	56.16%	24.67	54.82%	↓2.80%
Functional Ability Scale score	12	4.27	35.58%	4.53	37.75%	4.80	40.00%	↑4.41%
Quality of life(Impairment score)	105	59.87	57.02%	57.60	54.86%	57.33	54.60%	↓2.42%

- In experiment group, in Medication adherence scale, patients are gained 6.63% more score.
- In Modified Heart failure compliance scale patients are gained 2.68% more score,
- In European Heart Failure Self-Care Behaviour Scale score patients are reduced 2.80% score.
- In Functional Ability Scale score, patients are gained 4.41% more score.
- In Quality of life (Impairment score) patients are reduced 2.42% score.

Table 10 DIFFERENCE BETWEEN PRETEST AND POSTTEST PERCENTAGE OF GAIN SCORE (Control)

Scales	Experiment group	Control group
Medication adherence scale	↑29.12%	↑6.63%
Modified Heart failure compliance scale	↑25.69%	↑2.68%
European Heart Failure Self-Care Behaviour Scale score	↓20.31%	↓2.80%
Functional Ability Scale score	↑18.92%	↑4.41%
Quality of life(Impairment score)	↓19.43%	↓2.42%

Fig19

- In experiment group, in Medication adherence scale , patients are gained 29.12% score whereas control group gained 6.63%

- In Modified Heart failure compliance scale patients are gained 25.69% more score, whereas control group gained 2.68%
- In European Heart Failure Self-Care Behaviour Scale score patients are reduced 20.31% score. whereas control group reduced 2.80%
- in Functional Ability Scale score, patients are gained 18.92% more score, whereas control group gained 4.41%
- In Quality of life (Impairment score) patients are reduced 19.43% score, whereas control group reduced 2.42%.

Table 12: ASSOCIATION BETWEEN POSTTEST LEVEL OF MODIFIED HEART FAILURE COMPLIANCE SCALE SCORE AND DEMOGRAPHIC & CLINICAL VARIABLES(Experiment)

Demographic & Clinical variables		Level of compliance scale score						n	Chi square test
		Low		Medium		High			
		n	%	n	%	n	%		
Age in years	31 - 40 years	0	0.00%	0	0.00%	0	0.00%	0	$\chi2$=0.74P=0.69 DF=2 (NS)
	41 - 50 years	0	0.00%	0	0.00%	1	100.00%	1	
	51 - 60 years	0	0.00%	2	40.00%	3	60.00%	5	
	61 - 70 years	0	0.00%	4	44.44%	5	55.56%	9	
Sex	Male	0	0.00%	4	33.33%	8	66.67%	12	$\chi2$=1.11 P=0.29 DF=1 (NS)
	Female	0	0.00%	2	66.67%	1	33.33%	3	
Marital status	Married	0	0.00%	2	25.00%	6	75.00%	8	$\chi2$=1.60 P=0.20 DF=1 (NS)
	Unmarried	0	0.00%	0	0.00%	0	0.00%	0	
	Separated	0	0.00%	0	0.00%	0	0.00%	0	
	Widow/widower	0	0.00%	4	57.14%	3	42.86%	7	
Education	Illiterate	0	0.00%	0	0.00%	0	0.00%	0	$\chi2$=2.50 P=0.28 DF=2 (NS)
	Higher secondary	0	0.00%	3	50.00%	3	50.00%	6	
	Degree	0	0.00%	2	25.00%	6	75.00%	8	
	PG/higher education	0	0.00%	1	100.00%	0	0.00%	1	
Occupation	Employed	0	0.00%	2	50.00%	2	50.00%	4	$\chi2$=1.67 P=0.64 DF=3 (NS)
	Self employed	0	0.00%	0	0.00%	2	100.00%	2	
	Unemployed	0	0.00%	2	40.00%	3	60.00%	5	
	Retired from job	0	0.00%	2	50.00%	2	50.00%	4	
Alcohol intake	Non drinker	0	0.00%	6	60.00%	4	40.00%	10	$\chi2$=5.00 P=0.17 DF=3 (NS)
	Less than 3 times / week	0	0.00%	0	0.00%	2	100.00%	2	
	More than 3 times /week	0	0.00%	0	0.00%	2	100.00%	2	
	Daily	0	0.00%	0	0.00%	1	100.00%	1	
Smoking	Yes	0	0.00%	0	0.00%	4	100.00%	4	$\chi2$=3.63P=0.07 DF=1 (NS)
	No	0	0.00%	6	54.55%	5	45.45%	11	
Etiology of illness	Coronary artery disease	0	0.00%	4	44.44%	5	55.56%	9	$\chi2$=3.66 P=0.60 DF=5 (NS)
	Valvular heart disease	0	0.00%	0	0.00%	1	100.00%	1	
	Cardiomyopathy	0	0.00%	1	50.00%	1	50.00%	2	
	Hypertension	0	0.00%	1	100.00%	0	0.00%	1	

	CAD+VHD	0	0.00%	0	0.00%	1	100.00%	1	
	VAD+HT	0	0.00%	0	0.00%	1	100.00%	1	
NYHA functional class	I	0	0.00%	2	66.67%	1	33.33%	3	χ^2=3.19 P=0.36 DF=3 (NS)
	II	0	0.00%	2	25.00%	6	75.00%	8	
	III	0	0.00%	2	66.67%	1	33.33%	3	
	IV	0	0.00%	0	0.00%	1	100.00%	1	
Left ventricular ejection fraction	35 - 40%	0	0.00%	2	66.67%	1	33.33%	3	χ^2=2.96 P=0.22 DF=2 (NS)
	30 – 35%	0	0.00%	2	22.22%	7	77.78%	9	
	25 - 30%	0	0.00%	2	66.67%	1	33.33%	3	
	Less than 25%	0	0.00%	0	0.00%	0	0.00%	0	
Co morbidities	Hypertension	0	0.00%	1	33.33%	2	66.67%	3	χ^2=0.86 P=0.65 DF=2 (NS)
	Diabetes	0	0.00%	0	0.00%	0	0.00%	0	
	COPD	0	0.00%	0	0.00%	0	0.00%	0	
	Others	0	0.00%	0	0.00%	1	100.00%	1	
	Hyper+DM	0	0.00%	5	45.45%	6	54.55%	11	
Medications	ACE inhibitor	0	0.00%	0	0.00%	0	0.00%	0	**χ^2=8.75 P=0.01 DF=2 (S)**
	Beta blockers	0	0.00%	0	0.00%	0	0.00%	0	
	Spironolactone	0	0.00%	0	0.00%	0	0.00%	0	
	Digoxin	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta	0	0.00%	2	25.00%	6	75.00%	8	
	ACE+Beta+Spiro	0	0.00%	0	0.00%	3	100.00%	3	
	ACE+Beta+Dig	0	0.00%	4	100.00%	0	0.00%	4	
Previous hospitalization	Yes	0	0.00%	1	25.00%	3	75.00%	4	χ^2=0.51 P=0.47 DF=1 (NS)
	No	0	0.00%	5	45.45%	6	54.55%	11	

Fig21

Table 20 shows the association between post-test level of compliance score. ACE+Beta medications are gained more compliance score than others. Statistical significance was calculated using chi square test.

Table 13: ASSOCIATION BETWEEN POSTTEST LEVEL OF MODIFIED HEART FAILURE COMPLIANCE SCALE SCORE AND DEMOGRAPHIC & CLINICAL VARIABLES (control)

		Level of Medication adherence score						n	Chi square test
		Low		Medium		High			
Demographic & Clinical variables		n	%	n	%	n	%		
Age in years	31 - 40 years	0	0.00%	0	0.00%	0	0.00%	0	χ^2=2.94P=0.22 DF=2 (NS)
	41 - 50 years	1	50.00%	1	50.00%	0	0.00%	2	
	51 - 60 years	0	0.00%	6	100.00%	0	0.00%	6	
	61 - 70 years	2	28.57%	5	71.43%	0	0.00%	7	
Sex	Male	3	21.43%	11	78.57%	0	0.00%	14	χ^2=0.27 P=0.60 DF=1 (NS)
	Female	0	0.00%	1	100.00%	0	0.00%	1	
Marital status	Married	1	11.11%	8	88.89%	0	0.00%	9	χ^2=1.94 P=0.37 DF=1 (NS)
	Unmarried	0	0.00%	0	0.00%	0	0.00%	0	
	Separated	0	0.00%	1	100.00%	0	0.00%	1	
	Widow/widower	2	40.00%	3	60.00%	0	0.00%	5	

Education	Illiterate	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.07 P=0.79 DF=2 (NS)
	Higher secondary	1	16.67%	5	83.33%	0	0.00%	6	
	Degree	2	22.22%	7	77.78%	0	0.00%	9	
	PG/higher education	0	0.00%	0	0.00%	0	0.00%	0	
Occupation	Employed	1	16.67%	5	83.33%	0	0.00%	6	$\chi 2$=1.45 P=0.69 DF=3 (NS)
	Self employed	0	0.00%	2	100.00%	0	0.00%	2	
	Unemployed	0	0.00%	1	100.00%	0	0.00%	1	
	Retired from job	2	33.33%	4	66.67%	0	0.00%	6	
Alcohol intake	Non drinker	2	22.22%	7	77.78%	0	0.00%	9	$\chi 2$=0.27 P=0.87 DF=3 (NS)
	Less than 3 times / week	1	20.00%	4	80.00%	0	0.00%	5	
	More than 3 times /week	0	0.00%	1	100.00%	0	0.00%	1	
	Daily	0	0.00%	0	0.00%	0	0.00%	0	
Smoking	Yes	1	20.00%	4	80.00%	0	0.00%	5	$\chi 2$=0.00P=1.00 DF=1 (NS)
	No	2	20.00%	8	80.00%	0	0.00%	10	
Etiology of illness	Coronary artery disease	2	18.18%	9	81.82%	0	0.00%	11	$\chi 2$=4.77 P=0.31 DF=5 (NS)
	Valvular heart disease	0	0.00%	1	100.00%	0	0.00%	1	
	Cardiomyopathy	0	0.00%	0	0.00%	0	0.00%	0	
	Hypertension	0	0.00%	1	100.00%	0	0.00%	1	
	CAD+VHD	0	0.00%	1	100.00%	0	0.00%	1	
	VAD+HT	1	100.00%	0	0.00%	0	0.00%	1	
NYHA functional class	I	1	20.00%	4	80.00%	0	0.00%	5	$\chi 2$=0.62 P=0.73 DF=3 (NS)
	II	2	25.00%	6	75.00%	0	0.00%	8	
	III	0	0.00%	2	100.00%	0	0.00%	2	
	IV	0	0.00%	0	0.00%	0	0.00%	0	
Left ventricular ejection fraction	35 - 40%	1	16.67%	5	83.33%	0	0.00%	6	$\chi 2$=0.07 P=0.79 DF=2 (NS)
	30 – 35%	2	22.22%	7	77.78%	0	0.00%	9	
	25 - 30%	0	0.00%	0	0.00%	0	0.00%	0	
	Less than 25%	0	0.00%	0	0.00%	0	0.00%	0	
Co morbidities	Hypertension	1	50.00%	1	50.00%	0	0.00%	2	$\chi 2$=1.87 P=0.60 DF=3 (NS)
	Diabetes	0	0.00%	1	100.00%	0	0.00%	1	
	COPD	0	0.00%	0	0.00%	0	0.00%	0	
	Others	0	0.00%	2	100.00%	0	0.00%	2	
	Hyper+DM	2	20.00%	8	80.00%	0	0.00%	10	
Medications	ACE inhibitor	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=3.28 P=0.19 DF=2 (NS)
	Beta blockers	0	0.00%	3	100.00%	0	0.00%	3	
	Spironolactone	0	0.00%	0	0.00%	0	0.00%	0	
	Digoxin	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta	3	37.50%	5	62.50%	0	0.00%	8	
	ACE+Beta+Spiro	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta+Dig	0	0.00%	4	100.00%	0	0.00%	4	

Previous hospitalization	Yes	0	0.00%	3	100.00%	0	0.00%	3	$\chi 2$=0.93 P=0.33 DF=1 (NS)
	No	3	25.00%	9	75.00%	0	0.00%	12	

Table 21 shows the association between post-test level of compliance score . None of the variable are significant. Statistical significance was calculated using chi square test.

Table 14: ASSOCIATION BETWEEN POSTTEST LEVEL OF EUROPEAN HEART FAILURE SELF-CARE BEHAVIOUR SCALE SCORE AND DEMOGRAPHIC & CLINICAL VARIABLES (Experiment)

		Level of Behaviour scale score						n	Chi square test
		Good		Moderate		Poor			
Demographic & Clinical variables		n	%	n	%	n	%		
Age in years	31 - 40 years	0	0.00%	0	0.00%	0	0.00%	0	**$\chi 2$=8.86P=0.01 DF=2 (S)**
	41 - 50 years	0	0.00%	1	100.00%	0	0.00%	1	
	51 - 60 years	2	40.00%	3	60.00%	0	0.00%	5	
	61 - 70 years	9	100.00%	0	0.00%	0	0.00%	9	
Sex	Male	8	66.67%	4	33.33%	0	0.00%	12	$\chi 2$=1.36 P=0.24 DF=1 (NS)
	Female	3	100.00%	0	0.00%	0	0.00%	3	
Marital status	Married	7	87.50%	1	12.50%	0	0.00%	8	$\chi 2$=1.76 P=0.18 DF=1 (NS)
	Unmarried	0	0.00%	0	0.00%	0	0.00%	0	
	Separated	0	0.00%	0	0.00%	0	0.00%	0	
	Widow/widower	4	57.14%	3	42.86%	0	0.00%	7	
Education	Illiterate	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=2.86 P=0.24 DF=2 (NS)
	Higher secondary	3	50.00%	3	50.00%	0	0.00%	6	
	Degree	7	87.50%	1	12.50%	0	0.00%	8	
	PG/higher education	1	100.00%	0	0.00%	0	0.00%	1	
Occupation	Employed	3	75.00%	1	25.00%	0	0.00%	4	$\chi 2$=5.02 P=0.17 DF=3 (NS)
	Self employed	2	100.00%	0	0.00%	0	0.00%	2	
	Unemployed	2	40.00%	3	60.00%	0	0.00%	5	
	Retired from job	4	100.00%	0	0.00%	0	0.00%	4	
Alcohol intake	Non drinker	7	70.00%	3	30.00%	0	0.00%	10	$\chi 2$=1.71P=0.63 DF=3 (NS)
	Less than 3 times / week	2	100.00%	0	0.00%	0	0.00%	2	
	More than 3 times /week	1	50.00%	1	50.00%	0	0.00%	2	
	Daily	1	100.00%	0	0.00%	0	0.00%	1	
Smoking	Yes	3	75.00%	1	25.00%	0	0.00%	4	$\chi 2$=0.01P=0.93 DF=1 (NS)
	No	8	72.73%	3	27.27%	0	0.00%	11	
Etiology of illness	Coronary artery disease	7	77.78%	2	22.22%	0	0.00%	9	$\chi 2$=7.04 P=0.22 DF=5 (NS)
	Valvular heart disease	0	0.00%	1	100.00%	0	0.00%	1	
	Cardiomyopathy	2	100.00%	0	0.00%	0	0.00%	2	
	Hypertension	1	100.00%	0	0.00%	0	0.00%	1	
	CAD+VHD	0	0.00%	1	100.00%	0	0.00%	1	
	VAD+HT	1	100.00%	0	0.00%	0	0.00%	1	
NYHA functional class	I	1	33.33%	2	66.67%	0	0.00%	3	$\chi 2$=3.92 P=0.27 DF=3 (NS)
	II	6	75.00%	2	25.00%	0	0.00%	8	
	III	3	100.00%	0	0.00%	0	0.00%	3	
	IV	1	100.00%	0	0.00%	0	0.00%	1	

Left ventricular ejection fraction	35 - 40%	1	33.33%	2	66.67%	0	0.00%	3	$\chi 2$=3.63 P=0.16 DF=2 (NS)
	30 – 35%	7	77.78%	2	22.22%	0	0.00%	9	
	25 - 30%	3	100.00%	0	0.00%	0	0.00%	3	
	Less than 25%	0	0.00%	0	0.00%	0	0.00%	0	
Co morbidities	Hypertension	3	100.00%	0	0.00%	0	0.00%	3	$\chi 2$=1.98 P=0.37 DF=2 (NS)
	Diabetes	0	0.00%	0	0.00%	0	0.00%	0	
	COPD	0	0.00%	0	0.00%	0	0.00%	0	
	Others	1	100.00%	0	0.00%	0	0.00%	1	
	Hyper+DM	7	63.64%	4	36.36%	0	0.00%	11	
Medications	ACE inhibitor	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=2.00 P=0.36 DF=2 (NS)
	Beta blockers	0	0.00%	0	0.00%	0	0.00%	0	
	Spironolactone	0	0.00%	0	0.00%	0	0.00%	0	
	Digoxin	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta	7	87.50%	1	12.50%	0	0.00%	8	
	ACE+Beta+Spiro	2	66.67%	1	33.33%	0	0.00%	3	
	ACE+Beta+Dig	2	50.00%	2	50.00%	0	0.00%	4	
Previous hospitalization	Yes	3	75.00%	1	25.00%	0	0.00%	4	$\chi 2$=0.01 P=0.93 DF=1 (NS)
	No	8	72.73%	3	27.27%	0	0.00%	11	

Fig22

Table 22 shows the association between post-test level of European Heart Failure Self-Care Behaviour Scale score. Elders are gained more good behaviour score than others. Statistical significance was calculated using chi square test.

Table 15: ASSOCIATION BETWEEN POSTTEST LEVEL OF EUROPEAN HEART FAILURE SELF-CARE BEHAVIOUR SCALE SCORE AND DEMOGRAPHIC & CLINICAL VARIABLES (control)

		Level of Behaviour scale score						n	Chi square test
		Good		Moderate		Poor			
Demographic & Clinical variables		n	%	n	%	n	%		
Age in years	31 - 40 years	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.88P=0.65 DF=2 (NS)
	41 - 50 years	0	0.00%	2	100.00%	0	0.00%	2	
	51 - 60 years	2	33.33%	4	66.67%	0	0.00%	6	
	61 - 70 years	2	28.57%	5	71.43%	0	0.00%	7	
Sex	Male	4	28.57%	10	71.43%	0	0.00%	14	$\chi 2$=0.39 P=0.53 DF=1 (NS)
	Female	0	0.00%	1	100.00%	0	0.00%	1	
Marital status	Married	2	22.22%	7	77.78%	0	0.00%	9	$\chi 2$=2.96 P=0.22 DF=1 (NS)
	Unmarried	0	0.00%	0	0.00%	0	0.00%	0	
	Separated	1	100.00%	0	0.00%	0	0.00%	1	
	Widow/widower	1	20.00%	4	80.00%	0	0.00%	5	
Education	Illiterate	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=0.22 P=0.63 DF=2 (NS)
	Higher secondary	2	33.33%	4	66.67%	0	0.00%	6	
	Degree	2	22.22%	7	77.78%	0	0.00%	9	
	PG/higher education	0	0.00%	0	0.00%	0	0.00%	0	
Occupation	Employed	1	16.67%	5	83.33%	0	0.00%	6	$\chi 2$=1.36 P=0.71 DF=3 (NS)
	Self employed	1	50.00%	1	50.00%	0	0.00%	2	

	Unemployed	0	0.00%	1	100.00%	0	0.00%	1	
	Retired from job	2	33.33%	4	66.67%	0	0.00%	6	
Alcohol intake	Non drinker	3	33.33%	6	66.67%	0	0.00%	9	$\chi 2$=0.68 P=0.71 DF=3 (NS)
	Less than 3 times / week	1	20.00%	4	80.00%	0	0.00%	5	
	More than 3 times /week	0	0.00%	1	100.00%	0	0.00%	1	
	Daily	0	0.00%	0	0.00%	0	0.00%	0	
Smoking	Yes	0	0.00%	5	100.00%	0	0.00%	5	$\chi 2$=2.72P=0.10 DF=1 (NS)
	No	4	40.00%	6	60.00%	0	0.00%	10	
Etiology of illness	Coronary artery disease	3	27.27%	8	72.73%	0	0.00%	11	$\chi 2$=3.84 P=0.42 DF=5 (NS)
	Valvular heart disease	0	0.00%	1	100.00%	0	0.00%	1	
	Cardiomyopathy	0	0.00%	0	0.00%	0	0.00%	0	
	Hypertension	0	0.00%	1	100.00%	0	0.00%	1	
	CAD+VHD	0	0.00%	1	100.00%	0	0.00%	1	
	VAD+HT	1	100.00%	0	0.00%	0	0.00%	1	
NYHA functional class	I	1	20.00%	4	80.00%	0	0.00%	5	$\chi 2$=0.68 P=0.71 DF=3 (NS)
	II	2	25.00%	6	75.00%	0	0.00%	8	
	III	1	50.00%	1	50.00%	0	0.00%	2	
	IV	0	0.00%	0	0.00%	0	0.00%	0	
Left ventricular ejection fraction	35 - 40%	1	16.67%	5	83.33%	0	0.00%	6	$\chi 2$=0.51 P=0.47 DF=2 (NS)
	30 – 35%	3	33.33%	6	66.67%	0	0.00%	9	
	25 - 30%	0	0.00%	0	0.00%	0	0.00%	0	
	Less than 25%	0	0.00%	0	0.00%	0	0.00%	0	
Co morbidities	Hypertension	0	0.00%	2	100.00%	0	0.00%	2	$\chi 2$=4.26 P=0.23 DF=3 (NS)
	Diabetes	1	100.00%	0	0.00%	0	0.00%	1	
	COPD	0	0.00%	0	0.00%	0	0.00%	0	
	Others	0	0.00%	2	100.00%	0	0.00%	2	
	Hyper+DM	3	30.00%	7	70.00%	0	0.00%	10	
Medications	ACE inhibitor	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=2.00 P=0.36 DF=2 (NS)
	Beta blockers	1	33.33%	2	66.67%	0	0.00%	3	
	Spironolactone	0	0.00%	0	0.00%	0	0.00%	0	
	Digoxin	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta	1	12.50%	7	87.50%	0	0.00%	8	
	ACE+Beta+Spiro	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta+Dig	2	50.00%	2	50.00%	0	0.00%	4	
Previous hospitalization	Yes	0	0.00%	3	100.00%	0	0.00%	3	$\chi 2$=1.36 P=0.24 DF=1 (NS)
	No	4	33.33%	8	66.67%	0	0.00%	12	

Table 23 shows the association between posttest level of European Heart Failure Self-Care Behaviour Scale score. None of the variable are significant. Statistical significance was calculated using chi square test.

Table 24: ASSOCIATION BETWEEN POSTTEST LEVEL OF FUNCTIONAL ABILITY SCALE SCORE AND DEMOGRAPHIC & CLINICAL VARIABLES (Experiment)

Demographic & Clinical variables		Level of Functional Ability score						n	Chi square test
		Poor		Moderate		Good			
		n	%	n	%	n	%		
Age in years	31 - 40 years	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2=0.90 P=0.63$ DF=2 (NS)
	41 - 50 years	0	0.00%	1	100.00%	0	0.00%	1	
	51 - 60 years	0	0.00%	3	60.00%	2	40.00%	5	
	61 - 70 years	0	0.00%	7	77.78%	2	22.22%	9	
Sex	Male	0	0.00%	10	83.33%	2	16.67%	12	$\chi 2=3.06$ P=0.08 DF=1 (NS)
	Female	0	0.00%	1	33.33%	2	66.67%	3	
Marital status	Married	0	0.00%	6	75.00%	2	25.00%	8	$\chi 2=0.02$ P=0.87 DF=1 (NS)
	Unmarried	0	0.00%	0	0.00%	0	0.00%	0	
	Separated	0	0.00%	0	0.00%	0	0.00%	0	
	Widow/widower	0	0.00%	5	71.43%	2	28.57%	7	
Education	Illiterate	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2=3.07$ P=0.21 DF=2 (NS)
	Higher secondary	0	0.00%	5	83.33%	1	16.67%	6	
	Degree	0	0.00%	6	75.00%	2	25.00%	8	
	PG/higher education	0	0.00%	0	0.00%	1	100.00%	1	
Occupation	Employed	0	0.00%	3	75.00%	1	25.00%	4	**$\chi 2=7.90 P=0.05$ DF=3 (S)**
	Self employed	0	0.00%	0	0.00%	2	100.00%	2	
	Unemployed	0	0.00%	5	100.00%	0	0.00%	5	
	Retired from job	0	0.00%	3	75.00%	1	25.00%	4	
Alcohol intake	Non drinker	0	0.00%	6	60.00%	4	40.00%	10	$\chi 2=2.72 P=0.43$ DF=3 (NS)
	Less than 3 times / week	0	0.00%	2	100.00%	0	0.00%	2	
	More than 3 times /week	0	0.00%	2	100.00%	0	0.00%	2	
	Daily	0	0.00%	1	100.00%	0	0.00%	1	
Smoking	Yes	0	0.00%	4	100.00%	0	0.00%	4	$\chi 2=1.98 P=0.15$ DF=1 (NS)
	No	0	0.00%	7	63.64%	4	36.36%	11	
Etiology of illness	Coronary artery disease	0	0.00%	7	77.78%	2	22.22%	9	$\chi 2=4.48$ P=0.49 DF=5 (NS)
	Valvular heart disease	0	0.00%	1	100.00%	0	0.00%	1	
	Cardiomyopathy	0	0.00%	1	50.00%	1	50.00%	2	
	Hypertension	0	0.00%	0	0.00%	1	100.00%	1	
	CAD+VHD	0	0.00%	1	100.00%	0	0.00%	1	
	VAD+HT	0	0.00%	1	100.00%	0	0.00%	1	
NYHA functional class	I	0	0.00%	2	66.67%	1	33.33%	3	$\chi 2=3.70$ P=0.29 DF=3 (NS)
	II	0	0.00%	7	87.50%	1	12.50%	8	
	III	0	0.00%	1	33.33%	2	66.67%	3	
	IV	0	0.00%	1	100.00%	0	0.00%	1	

Left ventricular ejection fraction	35 - 40%	0	0.00%	2	66.67%	1	33.33%	3	χ^2=3.63 P=0.16 DF=2 (NS)
	30 – 35%	0	0.00%	8	88.89%	1	11.11%	9	
	25 - 30%	0	0.00%	1	33.33%	2	66.67%	3	
	Less than 25%	0	0.00%	0	0.00%	0	0.00%	0	
Co morbidities	Hypertension	0	0.00%	2	66.67%	1	33.33%	3	χ^2=0.43 P=0.81 DF=2 (NS)
	Diabetes	0	0.00%	0	0.00%	0	0.00%	0	
	COPD	0	0.00%	0	0.00%	0	0.00%	0	
	Others	0	0.00%	1	100.00%	0	0.00%	1	
	Hyper+DM	0	0.00%	8	72.73%	3	27.27%	11	
Medications	ACE inhibitor	0	0.00%	0	0.00%	0	0.00%	0	χ^2=2.21 P=0.33 DF=2 (NS)
	Beta blockers	0	0.00%	0	0.00%	0	0.00%	0	
	Spironolactone	0	0.00%	0	0.00%	0	0.00%	0	
	Digoxin	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta	0	0.00%	6	75.00%	2	25.00%	8	
	ACE+Beta+Spiro	0	0.00%	3	100.00%	0	0.00%	3	
	ACE+Beta+Dig	0	0.00%	2	50.00%	2	50.00%	4	
Previous hospitalization	Yes	0	0.00%	3	75.00%	1	25.00%	4	χ^2=0.01 P=0.93 DF=1 (NS)
	No	0	0.00%	8	72.73%	3	27.27%	11	

Fig23

Table 24 shows the association between post-test levels of Functional Ability score. Self-employed are gained more good ability score than others. Statistical significance was calculated using chi square test.

Table 25: ASSOCIATION BETWEEN POSTTEST LEVEL OF FUNCTIONAL ABILITY SCALE SCORE AND DEMOGRAPHIC & CLINICAL VARIABLES (control)

		Level of Functional scale score						n	Chi square test
		Poor		Moderate		Good			
Demographic & Clinical variables		n	%	n	%	n	%		
Age in years	31 - 40 years	0	0.00%	0	0.00%	0	0.00%	0	χ^2=0.87P=0.65 DF=2 (NS)
	41 - 50 years	1	50.00%	1	50.00%	0	0.00%	2	
	51 - 60 years	1	16.67%	5	83.33%	0	0.00%	6	
	61 - 70 years	2	28.57%	5	71.43%	0	0.00%	7	
Sex	Male	4	28.57%	10	71.43%	0	0.00%	14	χ^2=0.39 P=0.53 DF=1 (NS)
	Female	0	0.00%	1	100.00%	0	0.00%	1	
Marital status	Married	4	44.44%	5	55.56%	0	0.00%	9	χ^2=3.83 P=0.16 DF=1 (NS)
	Unmarried	0	0.00%	0	0.00%	0	0.00%	0	
	Separated	0	0.00%	1	100.00%	0	0.00%	1	
	Widow/widower	0	0.00%	5	100.00%	0	0.00%	5	
Education	Illiterate	0	0.00%	0	0.00%	0	0.00%	0	χ^2=0.51 P=0.47 DF=2 (NS)
	Higher secondary	1	16.67%	5	83.33%	0	0.00%	6	
	Degree	3	33.33%	6	66.67%	0	0.00%	9	
	PG/higher education	0	0.00%	0	0.00%	0	0.00%	0	

Occupation	Employed	2	33.33%	4	66.67%	0	0.00%	6	χ^2=1.36 P=0.71 DF=3 (NS)
	Self employed	0	0.00%	2	100.00%	0	0.00%	2	
	Unemployed	0	0.00%	1	100.00%	0	0.00%	1	
	Retired from job	2	33.33%	4	66.67%	0	0.00%	6	
Alcohol intake	Non drinker	1	11.11%	8	88.89%	0	0.00%	9	χ^2=4.31 P=0.11 DF=3 (NS)
	Less than 3 times / week	2	40.00%	3	60.00%	0	0.00%	5	
	More than 3 times /week	1	100.00%	0	0.00%	0	0.00%	1	
	Daily	0	0.00%	0	0.00%	0	0.00%	0	
Smoking	Yes	3	60.00%	2	40.00%	0	0.00%	5	χ^2=2.08P=0.15 DF=1 (NS)
	No	1	10.00%	9	90.00%	0	0.00%	10	
Etiology of illness	Coronary artery disease	2	18.18%	9	81.82%	0	0.00%	11	χ^2=6.62 P=0.16 DF=5 (NS)
	Valvular heart disease	0	0.00%	1	100.00%	0	0.00%	1	
	Cardiomyopathy	0	0.00%	0	0.00%	0	0.00%	0	
	Hypertension	1	100.00%	0	0.00%	0	0.00%	1	
	CAD+VHD	1	100.00%	0	0.00%	0	0.00%	1	
	VAD+HT	0	0.00%	1	100.00%	0	0.00%	1	
NYHA functional class	I	1	20.00%	4	80.00%	0	0.00%	5	χ^2=0.68 P=0.71 DF=3 (NS)
	II	2	25.00%	6	75.00%	0	0.00%	8	
	III	1	50.00%	1	50.00%	0	0.00%	2	
	IV	0	0.00%	0	0.00%	0	0.00%	0	
Left ventricular ejection fraction	35 - 40%	2	33.33%	4	66.67%	0	0.00%	6	χ^2=0.22 P=0.63 DF=2 (NS)
	30 – 35%	2	22.22%	7	77.78%	0	0.00%	9	
	25 - 30%	0	0.00%	0	0.00%	0	0.00%	0	
	Less than 25%	0	0.00%	0	0.00%	0	0.00%	0	
Co morbidities	Hypertension	0	0.00%	2	100.00%	0	0.00%	2	χ^2=1.70 P=0.63 DF=3 (NS)
	Diabetes	0	0.00%	1	100.00%	0	0.00%	1	
	COPD	0	0.00%	0	0.00%	0	0.00%	0	
	Others	1	50.00%	1	50.00%	0	0.00%	2	
	Hyper+DM	3	30.00%	7	70.00%	0	0.00%	10	
Medications	ACE inhibitor	0	0.00%	0	0.00%	0	0.00%	0	χ^2=2.21 P=0.33 DF=2 (NS)
	Beta blockers	0	0.00%	3	100.00%	0	0.00%	3	
	Spironolactone	0	0.00%	0	0.00%	0	0.00%	0	
	Digoxin	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta	2	25.00%	6	75.00%	0	0.00%	8	
	ACE+Beta+Spiro	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta+Dig	2	50.00%	2	50.00%	0	0.00%	4	
Previous hospitalization	Yes	1	33.33%	2	66.67%	0	0.00%	3	χ^2=0.09 P=0.77 DF=1 (NS)
	No	3	25.00%	9	75.00%	0	0.00%	12	

Table 25 shows the association between posttest level of European Heart Failure Self-Care Behaviour Scale score. None of the variable is significant. Statistical significance was calculated using chi square test.

Table 26: ASSOCIATION BETWEEN POSTTEST LEVEL OF QUALITY OF LIFE (Impairment) SCALE SCORE AND DEMOGRAPHIC & CLINICAL VARIABLES (Experiment)

Demographic & Clinical variables		Level of impairment score						n	Chi square test
		Low		Medium		High			
		n	%	n	%	n	%		
Age in years	31 - 40 years	0	0.00%	0	0.00%	0	0.00%	0	χ^2=2.41P=0.30 DF=2 (NS)
	41 - 50 years	0	0.00%	1	100.00%	0	0.00%	1	
	51 - 60 years	4	80.00%	1	20.00%	0	0.00%	5	
	61 - 70 years	5	55.56%	4	44.44%	0	0.00%	9	
Sex	Male	8	66.67%	4	33.33%	0	0.00%	12	χ^2=1.11 P=0.29 DF=1 (NS)
	Female	1	33.33%	2	66.67%	0	0.00%	3	
Marital status	Married	6	75.00%	2	25.00%	0	0.00%	8	χ^2=1.60 P=0.22 DF=1 (NS)
	Unmarried	0	0.00%	0	0.00%	0	0.00%	0	
	Separated	0	0.00%	0	0.00%	0	0.00%	0	
	Widow/widower	3	42.86%	4	57.14%	0	0.00%	7	
Education	Illiterate	0	0.00%	0	0.00%	0	0.00%	0	χ^2=2.50 P=0.28 DF=2 (NS)
	Higher secondary	3	50.00%	3	50.00%	0	0.00%	6	
	Degree	6	75.00%	2	25.00%	0	0.00%	8	
	PG/higher education	0	0.00%	1	100.00%	0	0.00%	1	
Occupation	Employed	2	50.00%	2	50.00%	0	0.00%	4	χ^2=1.67P=0.64 DF=3 (NS)
	Self employed	2	100.00%	0	0.00%	0	0.00%	2	
	Unemployed	3	60.00%	2	40.00%	0	0.00%	5	
	Retired from job	2	50.00%	2	50.00%	0	0.00%	4	
Alcohol intake	Non drinker	5	50.00%	5	50.00%	0	0.00%	10	χ^2=2.50P=0.47 DF=3 (NS)
	Less than 3 times / week	2	100.00%	0	0.00%	0	0.00%	2	
	More than 3 times /week	1	50.00%	1	50.00%	0	0.00%	2	
	Daily	1	100.00%	0	0.00%	0	0.00%	1	
Smoking	Yes	3	75.00%	1	25.00%	0	0.00%	4	χ^2=0.51P=0.47 DF=1 (NS)
	No	6	54.55%	5	45.45%	0	0.00%	11	
Etiology of illness	Coronary artery disease	5	55.56%	4	44.44%	0	0.00%	9	χ^2=3.66 P=0.60 DF=5 (NS)
	Valvular heart disease	0	0.00%	1	100.00%	0	0.00%	1	
	Cardiomyopathy	1	50.00%	1	50.00%	0	0.00%	2	
	Hypertension	1	100.00%	0	0.00%	0	0.00%	1	
	CAD+VHD	1	100.00%	0	0.00%	0	0.00%	1	
	VAD+HT	1	100.00%	0	0.00%	0	0.00%	1	
NYHA functional class	I	1	33.33%	2	66.67%	0	0.00%	3	χ^2=3.19 P=0.36 DF=3 (NS)
	II	6	75.00%	2	25.00%	0	0.00%	8	
	III	1	33.33%	2	66.67%	0	0.00%	3	
	IV	1	100.00%	0	0.00%	0	0.00%	1	
Left ventricular ejection fraction	35 - 40%	1	33.33%	2	66.67%	0	0.00%	3	χ^2=2.96 P=0.23 DF=2 (NS)
	30 – 35%	7	77.78%	2	22.22%	0	0.00%	9	
	25 - 30%	1	33.33%	2	66.67%	0	0.00%	3	

	Less than 25%	0	0.00%	0	0.00%	0	0.00%	0	
Co morbidities	Hypertension	2	66.67%	1	33.33%	0	0.00%	3	χ2=0.86 P=0.65DF=2 (NS)
	Diabetes	0	0.00%	0	0.00%	0	0.00%	0	
	COPD	0	0.00%	0	0.00%	0	0.00%	0	
	Others	1	100.00%	0	0.00%	0	0.00%	1	
	Hyper+DM	6	54.55%	5	45.45%	0	0.00%	11	
Medications	ACE inhibitor	0	0.00%	0	0.00%	0	0.00%	0	**χ2=8.79 P=0.01 DF=2 (S)**
	Beta blockers	0	0.00%	0	0.00%	0	0.00%	0	
	Spironolactone	0	0.00%	0	0.00%	0	0.00%	0	
	Digoxin	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta	6	75.00%	2	25.00%	0	0.00%	8	
	ACE+Beta+Spiro	3	100.00%	0	0.00%	0	0.00%	3	
	ACE+Beta+Dig	0	0.00%	4	100.00%	0	0.00%	4	
Previous hospitalization	Yes	3	75.00%	1	25.00%	0	0.00%	4	χ2=0.51 P=0.48 DF=1 (NS)
	No	6	54.55%	5	45.45%	0	0.00%	11	

Fig24

Table 26 shows the association between post-test level of impairment score. ACE+Beta+Spiro patients are gained more low impairment score than others. Statistical significance was calculated using chi square test.

Table 27: ASSOCIATION BETWEEN POSTTEST LEVEL OF QUALITY OF LIFE (Impairment) SCALE SCORE AND DEMOGRAPHIC & CLINICAL VARIABLES (control)

		Level of impairment score						n	Chi square test
		Low		Medium		High			
Demographic & Clinical variables		n	%	n	%	n	%		
Age in years	31 - 40 years	0	0.00%	0	0.00%	0	0.00%	0	χ2=3.26P=0.19 DF=2 (NS)
	41 - 50 years	1	50.00%	1	50.00%	0	0.00%	2	
	51 - 60 years	0	0.00%	6	100.00%	0	0.00%	6	
	61 - 70 years	1	14.29%	6	85.71%	0	0.00%	7	
Sex	Male	2	14.29%	12	85.71%	0	0.00%	14	χ2=0.16 P=0.68 DF=1 (NS)
	Female	0	0.00%	1	100.00%	0	0.00%	1	
Marital status	Married	2	22.22%	7	77.78%	0	0.00%	9	χ2=1.53 P=0.46 DF=1 (NS)
	Unmarried	0	0.00%	0	0.00%	0	0.00%	0	
	Separated	0	0.00%	1	100.00%	0	0.00%	1	
	Widow/widower	0	0.00%	5	100.00%	0	0.00%	5	
Education	Illiterate	0	0.00%	0	0.00%	0	0.00%	0	χ2=1.51 P=0.23 DF=2 (NS)
	Higher secondary	0	0.00%	6	100.00%	0	0.00%	6	
	Degree	2	22.22%	7	77.78%	0	0.00%	9	
	PG/higher education	0	0.00%	0	0.00%	0	0.00%	0	
Occupation	Employed	1	16.67%	5	83.33%	0	0.00%	6	χ2=0.57 P=0.90 DF=3 (NS)

	Self employed	0	0.00%	2	100.00%	0	0.00%	2	
	Unemployed	0	0.00%	1	100.00%	0	0.00%	1	
	Retired from job	1	16.67%	5	83.33%	0	0.00%	6	
Alcohol intake	Non drinker	0	0.00%	9	100.00%	0	0.00%	9	$\chi 2$=4.61 P=0.10 DF=3 (NS)
	Less than 3 times / week	2	40.00%	3	60.00%	0	0.00%	5	
	More than 3 times /week	0	0.00%	1	100.00%	0	0.00%	1	
	Daily	0	0.00%	0	0.00%	0	0.00%	0	
Smoking	Yes	2	40.00%	3	60.00%	0	0.00%	5	$\chi 2$=1.80P=0.17DF=1 (NS)
	No	0	0.00%	10	100.00%	0	0.00%	10	
Etiology of illness	Coronary artery disease	1	9.09%	10	90.91%	0	0.00%	11	$\chi 2$=7.13 P=0.12 DF=5 (NS)
	Valvular heart disease	0	0.00%	1	100.00%	0	0.00%	1	
	Cardiomyopathy	0	0.00%	0	0.00%	0	0.00%	0	
	Hypertension	1	100.00%	0	0.00%	0	0.00%	1	
	CAD+VHD	0	0.00%	1	100.00%	0	0.00%	1	
	VAD+HT	0	0.00%	1	100.00%	0	0.00%	1	
NYHA functional class	I	1	20.00%	4	80.00%	0	0.00%	5	$\chi 2$=0.50P=0.77 DF=3 (NS)
	II	1	12.50%	7	87.50%	0	0.00%	8	
	III	0	0.00%	2	100.00%	0	0.00%	2	
	IV	0	0.00%	0	0.00%	0	0.00%	0	
Left ventricular ejection fraction	35 - 40%	2	33.33%	4	66.67%	0	0.00%	6	$\chi 2$=3.46 P=0.06 DF=2 (NS)
	30 – 35%	0	0.00%	9	100.00%	0	0.00%	9	
	25 - 30%	0	0.00%	0	0.00%	0	0.00%	0	
	Less than 25%	0	0.00%	0	0.00%	0	0.00%	0	
Co morbidities	Hypertension	0	0.00%	2	100.00%	0	0.00%	2	$\chi 2$=2.88 P=0.41 DF=3 (NS)
	Diabetes	0	0.00%	1	100.00%	0	0.00%	1	
	COPD	0	0.00%	0	0.00%	0	0.00%	0	
	Others	1	50.00%	1	50.00%	0	0.00%	2	
	Hyper+DM	1	10.00%	9	90.00%	0	0.00%	10	
Medications	ACE inhibitor	0	0.00%	0	0.00%	0	0.00%	0	$\chi 2$=2.01 P=0.36 DF=2 (NS)
	Beta blockers	0	0.00%	3	100.00%	0	0.00%	3	
	Spironolactone	0	0.00%	0	0.00%	0	0.00%	0	
	Digoxin	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta	2	25.00%	6	75.00%	0	0.00%	8	
	ACE+Beta+Spiro	0	0.00%	0	0.00%	0	0.00%	0	
	ACE+Beta+Dig	0	0.00%	4	100.00%	0	0.00%	4	
Previous hospitalization	Yes	1	33.33%	2	66.67%	0	0.00%	3	$\chi 2$=1.30 P=0.25 DF=1 (NS)
	No	1	8.33%	11	91.67%	0	0.00%	12	

Table 27 shows the association between posttest level of impairment score. None of the variable are significant. Statistical significance was calculated using chi square test.

TABLE 28: CORRELATION BETWEEN FUNCTIONAL ABILITY, HEALTH RELATED QUALITY OF LIFE AND THERAPEUTIC COMPLIANCE AMONG HEART FAILURE PATIENTS (EXPERIMENT)

correlation between	Post-test mean score	Correlation coefficient	Interpretation of correlation coefficient
Adherence score Vs Compliance score	5.60±1.88 Vs 96.13±5.13	**r=0.33 p=0.001*** **	There is a positive fair correlation between Adherence gain score and Compliance gain score
Adherence score Vs Behaviour score	5.60±1.88 Vs 17.13±3.66	**r=- 0.37 p=0.001*** **	There is a negative fair correlation between Adherence gain score and Compliance gain score
Adherence score Vs Functional Ability score	5.60±1.88 Vs 6.20±0.41	**r=0.42 p=0.001*** **	There is a positive Moderate correlation between Adherence gain score and Functional ability gain score
Adherence score Vs Impairment QOL score	5.60±1.88 Vs 36.73±8.04	**r=--0.43 p=0.001*** **	There is a negative Moderate correlation between Adherence gain score and impairment reduction score
Compliance score Vs Behaviour score	96.13±5.13 Vs 17.13±3.66	**r=-0.26 p=0.01** **	There is a negative fair correlation between Compliance score gain score and Behaviour reduction score
Compliance score Vs Functional Ability	96.13±5.13 Vs 6.20±0.41	**r=0.29 p=0.05***	There is a positive fair correlation between Compliance gain score and functional ability gain score
Compliance score Vs Impairment QOL score	96.13±5.13 Vs 36.73±8.04	**r=-0.32 p=0.001*** **	There is a negative fair correlation between Compliance gain score and impairment reduction score
Behaviour score Vs Functional Ability	17.13±3.66 Vs 6.20±0.41	**r=-0.34 p=0.001*** **	There is a negative fair correlation between Compliance gain score and Behaviour reduction score
Behaviour score Vs Impairment QOL score	17.13±3.66 Vs 36.73±8.04	**r=0.36 p=-0.001*** **	There is a positive fair correlation between Behaviour reduction score and impairment reduction score
Functional ability score Vs Impairment QOL score	6.20±0.41Vs 36.73±8.04	**r=- 0.34 p=-0.001*** **	There is a negative fair correlation between functional ability gain score and impairment reduction score

Above table shows the correlation between Functional ability, Health related Quality of life and therapeutic compliance among Heart failure patients among experiment group

TABLE 29: CORRELATION BETWEEN FUNCTIONAL ABILITY, HEALTH RELATED QUALITY OF LIFE AND THERAPEUTIC COMPLIANCE AMONG HEART FAILURE PATIENTS (CONTROL)

correlation between	Post-test mean score	Correlation coefficient	Interpretation of correlation coefficient
Adherence score Vs Compliance score	3.73±0.96 Vs 70.20±5.33	r=0.12 p=0.42	There is a positive Poor correlation between Adherence gain score and Compliance gain score
Adherence score Vs Behaviour score	3.73±0.96 Vs 24.67±3.52	r=- 0.17 p=0.39	There is a negative Poor correlation between Adherence gain score and Compliance gain score
Adherence score Vs Functional Ability score	3.73±0.96 Vs 5.13±1.13	r=0.13 p=0.36	There is a positive Poor correlation between Adherence gain score and Functional ability gain score
Adherence score Vs Impairment QOL score	3.73±0.96 Vs 57.33±4.27	r=--0.14 p=0.38	There is a negative Poor correlation between Adherence gain score and impairment reduction score
Compliance score Vs Behaviour score	70.20±5.33 Vs 24.67±3.52	r=-0.16 p=0.28	There is a negative Poor correlation between Compliance score gain score and Behaviour reduction score
Compliance score Vs Functional Ability	96.13±5.13 Vs 5.13±1.13	r=0.19 p=0.25	There is a positive Poor correlation between Compliance gain score and functional ability gain score
Compliance score Vs Impairment QOL score	96.13±5.13 Vs 36.73±8.04	r=-0.15 p=0.32	There is a negative Poor correlation between Compliance gain score and impairment reduction score
Behaviour score Vs Functional Ability	24.67±3.52Vs 5.13±1.13	r=-0.14 p=0.45	There is a negative Poor correlation between Compliance gain score and Behaviour reduction score
Behaviour score Vs Impairment QOL score	24.67±3.52 Vs 57.33±4.27	r=0.16 p=-0.40	There is a positive Poor correlation between Behaviour reduction score and impairment reduction score
Functional ability score Vs Impairment QOL score	5.13±1.13Vs 57.33±4.27	r=- 0.14 p=-0.34	There is a negative Poor correlation between functional ability gain score and impairment reduction score

Above table shows the correlation between Functional ability, Health related Quality of life and therapeutic compliance among Heart failure patients among experiment group

IV. Discussion:

Nursing as profession is to justify its practices on sound evidence. The randomized control is considered as "Gold standard" to generate high level evidence. Results show that a patient – targeted heart failure education program delivered at hospital discharge leads to improve in therapeutic compliance in terms of medication adherence, functional ability and health related quality of life. This is the first demonstration that patient targeted education delivered at the time of discharge leads to improved clinical outcomes in patient with heart failure. Improvement in clinical outcome gives positive results in self-care practices. a significantly higher proportion of patients exposed to the education intervention gives early recognize the symptom variations following a specific sodium restriction, fluid management, and abstaining from cigarette smoking on 30 day follow up with controls.

V. Conclusion:

In this study, patients with heart failure who received intensive patient education delivered by a nurse educator were less likely to be hospitalized during a 90-day follow-up period with all cause. Patients exposed to the education program were also more likely to report improved functional ability, disease- specific, self-care practices. These improved outcomes were achieved at a substantial quality of life. This is the first study to demonstrate the clinical benefit of a heart failure patient education program restricted to the hospital discharge time period. Patient education should be included in the optimal care of patients suffering from heart failure.

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