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## It is more than simple interventions needed to improve heart failure patients health related quality of life

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**Background:** In order to improve health-related quality of life (HR-QoL) of heart failure (HF) patients, different disease management programs have been developed at the discharged and follow-up phase.

**Aim:** To determine the effectiveness of a three-month telephone follow-up, a telephone follow-up with education before discharge, or education only before discharge (all performed by nurse specialists) on HR-QoL in HF patients. The results of the randomized clinical trial (RCT) MEETinCY are presented.

**Method:** This is a multicenter RCT with 3 different intervention groups (IGs) and one control group (CG). The first IG included only patients' education before discharge (E). The second IG included patients' education and telephone follow-up after discharge for three months (ET). The third IG included only telephone follow-up for three months (T). The Greek version of the MLHFQ was used. The statistical analysis of the impact of the intervention was done using ANCOVA. The magnitude of the effect of the intervention was studied with the Cohen's d coefficient for repeated measurements. The exploration of clinical and demographic factors in the relationship of HR-QoL was done by using linear coefficients of regression. The investigation of the robustness of the results and the intention to treat was carried out by sensitivity analysis. The management of missing value of the MLHFQ was done by using multiple imputation.

**Results:** The study included 334 patients. The analysis demonstrated that

the study groups differentiates the level of HR-QoL post-intervention measurement in terms of the Overall QoL ( $F=2.8$ ,  $df=47$ ,  $p=0.04$ ). The mean level of Overall HR-QoL adjusted for the pre-intervention measurement, in the T: 40.3 (SE=2.2) and ET: 42 (2.2) groups was higher than that of the E group: 39 (2.2) and the CG: 47 (2). Study group differences were also detected statistically in the Social dimension ( $F=3.4$ ,  $p=0.02$ ) but not in the Physical dimension ( $F=1.9$ ,  $p=0.11$ ) or the Emotional dimension ( $F=0.99$ ,  $p=0.40$ ). However, in the ET and T groups, higher adjusted average levels of the Physical and Social dimension are observed compared to the E and Control group. Overall, IGs exhibited low to moderate effect size improvements ( $d=0.4$ ) while the CG had negligible improvement ( $d=0.02$ ). Women exhibit lower overall HR-QoL scores compared to men by 13.9 points in the MLHFQ scale ( $b=13.9$ ,  $p<0.015$ ). NYHA IV (38.5,  $p<0.001$ ), NYHA III (29.5,  $p<0.001$ ) and NYHA II (9.15,  $p<0.001$ ) patients exhibit worse overall HR-QoL compared to NYHA I patients.

**Conclusion:** Patients' education before discharge was not found to have an important role over the three-months telephone follow-up after discharge. On the other hand, improvement was found in patients who had the telephone intervention and the possibility to call researchers (nurses) whenever they needed. Patients seem to need continuing communication and support and to feel the availability of contacting and seeking help when needed.