Official title: The Effect of Individualized Discharge Education on Readmission Rates in a High-Risk Population According to the LACE Index After Myocardial Infarction

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RESEARCH PROTOCOL

The study is a controlled study. while routine care will be provided to the control group, participants with a LACE score of 10 or higher, meeting the inclusion criteria and giving their consent, will be randomly assigned to two groups (Experimental) and (Control group) in a 1:1 ratio using a computer-based randomization program (e.g., Randomizer.org). Computerized assignment will be used to minimize selection bias during the randomization process. The group to which participants will be assigned will be determined by an unbiased researcher using the randomization program before the intervention.

• Patients in the control group will be administered a Personal Information Form, the Heart Quality of Life Scale (HeartQoL), and the Coronary Heart Disease Self-Care Scale (SC-CHDI). Hospitalization numbers will be monitored at 1 and 3 months, and the Coronary Heart Disease Self-Care Scale (SC-CHDI) and Heart Quality of Life Scale (HeartQoL) will be administered.

• Patients in the experimental group will be administered the Personal Information Form, the Percutaneous Coronary Intervention Information Needs Scale, the Heart Quality of Life Scale (HeartQoL), and the Coronary Heart Disease Self-Care Scale (SC-CHDI). Individualized education will be provided based on the results of the Percutaneous Coronary Intervention Information Needs Scale. Patient follow-up will be conducted at home three times a week by telephone after discharge. Hospital admissions will be monitored at 1 and 3 months using the Coronary Heart Disease Self-Care Scale (SC-CHDI) and the Heart Quality of Life Scale (HeartQoL).

Individualized Discharge Education Content:

Disease Information and Process Management: Definition of myocardial infarction, long-term management of the disease, recurrence risk, and recognition of complication signs.

Adherence to Medication: Regular use of medications, their therapeutic effects, and correct application methods.

Comorbidity Management: Monitoring and management of comorbidities as part of the general care plan.

Self-Care and Lifestyle Changes:

Nutrition: Adopting low-fat dietary habits to support heart health.

Physical Activity: Emphasizing the importance of regular exercise and creating a patient-specific safe activity plan.

Risk Factor Control: Quitting smoking, avoiding smoky environments, weight control, and regular blood pressure monitoring**.**

Symptom Management: Recognizing potential symptoms and teaching the necessary emergency steps to take in these situations.

Psychosocial Support: Strategies for coping with disease-related stress and approaches to improve quality of life.

Statistical Analysis of Data

Statistical analysis of the data obtained in this study will be performed using the SPSS 29 software package, and the statistical significance level will be accepted as $p<0.05$. The sociodemographic and clinical characteristics of the participants will be summarized with descriptive statistics; continuous variables will be expressed as mean ± standard deviation or median (minimum–maximum), and categorical variables will be expressed as number and percentage. The normality of the data distribution will be evaluated using the Kolmogorov-Smirnov test and the Shapiro-Wilk test. For comparisons between groups, the Independent Samples t-test will be used for data showing a normal distribution, and the Mann-Whitney U test will be used for data not showing a normal distribution. For within-group (pre-test–post-test) comparisons, the Paired t-test will be applied if a normal distribution is present, and the Wilcoxon signed-rank test will be applied if a normal distribution is absent. Repeated measures analysis of variance will be used when appropriate to evaluate both time and group effects, and the Chi-square test or, if necessary, Fisher's exact test will be preferred for the analysis of categorical data**.**